



Ft. Randall Dam, Lake Francis Case, SD

Table Rock Dam and Lake, MO & AR



South Florida Ecosystem Restoration, FL

Olmsted Locks and Dam, IL & KY



February 2011

®

US Army Corps of Engineers

Fiscal Year 2012 Civil Works Budget Details For the US Army Corps of Engineers

Department of the Army
Office, Assistant Secretary
of the Army
(Civil Works)



Civil Works

FY 2012

Budget

Justification

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**GREAT LAKES AND OHIO
RIVER DIVISION**

**GREAT LAKES AND OHIO RIVER DIVISION
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JUSTIFICATION OF ESTIMATE

FLOOD RISK MANAGEMENT

INVESTIGATIONS

APPROPRIATION TITLE: Investigations, Flood Risk Management, Fiscal Year 2012

Great Lakes and Ohio River Division

Study	Total Estimated Federal Cost	Allocation Prior to FY 2009	Allocation FY 2009	Allocation FY 2010	Tentative Allocation FY 2011	Allocation FY 2012	Additional to Complete After FY 2012
	\$	\$	\$	\$	\$	\$	\$
Des Plaines River, IL & WI (Phase II) Annual Allocations	6,713,000	4,332,000	478,000	421,000	500,000	500,000	0
Chicago District ARRA Allocations			482,000				
Total Allocations	6,713,000	4,332,000	960,000	421,000	500,000	500,000	0

The Des Plaines River (DPR) Basin originates in southwest Wisconsin and flows south into northeastern Illinois and has a drainage area of approximately 700 square miles. The DPR has a long history of flooding and land use change, which has caused significant economic and ecological losses throughout the basin. Economically, this study will provide benefits to a significant number of residential and commercial structures with an estimated market value of over \$100,000,000 in 73 municipalities. Record flooding in 1986 and 1987 caused an estimated \$100,000,000 in damage to 10,000 dwellings and 263 business and industrial sites and severely impacted the entire transportation network including air, rail and surface roads in this densely populated region Northwest of Chicago. There were seven fatalities during the 1986 and 1987 events. Floods severely impacted communication, transit, drinking water, emergency services and hospitals. Flooding in the Des Plaines River watershed can directly affect an estimated 1,733,000 people along with an estimated 4,810,000 people regionally impacted by the flooded transportation networks. Flood and Coastal Storm Damage Reduction measures would reduce the risk to life and health, and further prevent severe disruption to the air and land transportation networks including the world's busiest airport, O'Hare. Population density, residential and commercial development, and flat topography still result in substantial risks to life and safety despite lower flood depths and velocities. Recent flood events in May 2004 and August 2007 caused significant flood damages resulting in disaster declarations for the area. The August 2007 flood event caused an estimated \$40,000,000 in damages. September 2008 flooding also resulted in \$87,000,000 in damages, resulting in Presidential disaster declarations ecologically, this project could restore thousands of acres of the watershed. Agriculture, urban and suburban development within the watershed has created a landscape regime and drainage network that no longer provides the means for ecological and hydrological integrity to be sustained. This same change is the primary cause of increased flooding as well. Tens of thousands of natural landscape and wetland acres have been drained, altered or destroyed within the Upper Des Plaines watershed in Wisconsin and Illinois. To date, the study has evaluated 713 sites (115,373 acres) for implementing restoration measures that would improve riverine, wetland, riparian and watershed functions. The result of this analysis has illustrated that there are potentially 135 highly beneficial restoration projects (78,860 acres) that could be implemented that would have incidental flood damage reduction benefits. The final refinement left 10 sites as recommended sites that provide almost 10,000 acres of restored native community types. The Illinois Department of Natural Resources, Lake County Storm Water Management Commission, County of Kenosha, Cook County and Metropolitan Water Reclamation District of Greater Chicago and Kenosha County, Wisconsin are sponsors for the project. The Feasibility Cost Sharing Agreement was executed in February 2002.

The preliminary estimated cost of the feasibility phase is \$12,944,000. A summary of the cost sharing is as follows:

Total Estimated Study Cost	\$12,944,000
Feasibility Phase (Federal)	6,713,000
Feasibility Phase (Non-Federal)	6,231,000

FY 2011 funds are being used to continue the feasibility study. FY2012 funds will be used to complete the feasibility study.

CONSTRUCTION

APPROPRIATION TITLE: Construction, Flood Risk Management

PROJECT: Bluestone Lake, WV Dam Safety Assurance (Continuing)

LOCATION: The dam is located in southern WV, in Summers County, on the New River two miles south of Hinton, WV. It is situated 2.5 miles downstream from the confluence of the New and Bluestone Rivers, and 0.8 miles upstream from the confluence of the New and Greenbrier Rivers.

DESCRIPTION: Under the Dam Safety Assurance (DSA) program, the plan to correct the deficiencies includes stability improvements such as installation of high strength steel anchors and construction of mass concrete thrust blocks. Dam height will be raised by 8 feet and an additional monolith constructed. A floodgate closure will be constructed across a state highway. Existing hydropower penstocks will be extended and retrofitted with gates to supplement the discharge capacity of the spillway and outlet works. As a result of the Issue Evaluation Study (IES), project actions have been prioritized and accelerated to most effectively reduce risk. An issue of significance is scour potential in the discharge areas of the penstocks and the stilling basin which could lead to dam failure. Scour protection is being accelerated and this issue impacting the dam's spillway capacity will be addressed in future phases.

AUTHORIZATION: Section 5 of the Flood Control Act (FCA) of 1936 (P.L. 74-738) as amended by Section 4 of the FCA 1938 (P.L. 75-761) incorporating the Executive Order of the President 7183A, September 12, 1935.

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable

TOTAL BENEFIT-COST RATIO: Not applicable.

BASIS OF BENEFIT-COST RATIO: Not applicable.

SUMMARIZED FINANCIAL DATA:		ACCUM PCT OF EST FED COST	STATUS (1 Jan 2011) Project Modification	PERCENT COMPLETE 20	PHYSICAL COMPLETION SCHEDULE TBD
ORIGINAL PROJECT					
Actual Federal Cost	\$ 28,618,100				
Actual Non-Federal Cost	0				
Total Original Project Cost	28,618,000				
PROJECT MODIFICATION					
Estimated Federal Cost	310,000,000				
Estimated Non-Federal Cost	0				
Total Estimated Modification Cost	310,000,000	1/			
Total Estimated Project Cost	\$ 338,618,100				

PHYSICAL DATA:

Increase height of dam 8 feet; install anchors and thrust blocks; construct gate closure across State Route 20; modify penstocks to supplement discharge capacity and provide adequate scour protection; address scour potential in spillway to meet necessary discharge capacity; relocate electrical lines.

Division: Great Lakes & Ohio River

District: Huntington

Bluestone Lake Dam Safety Assurance, WV

SUMMARIZED FINANCIAL DATA: (Continued)

ACCUM
PCT OF EST
FED COST

Allocations to 30 September 2008	\$	79,223,000		2/
Allocation for FY 2009		12,000,000		
Allocation for FY 2010		81,911,000		
Recovery Act Allocations as of 31 Dec 2010		46,372,701		
President's Budget for FY 2011		15,000,000		
Allocation for FY 2011		15,000,000		
Allocations through FY 2011		234,506,701	75	3/
Budget for FY 2012	\$	70,000,000	98	3/
Programmed Balance to Complete after FY 2012		TBD		4/
Unprogrammed Balance to Complete after FY 2012		0		

1/ Project Cost Estimate currently under review; IES findings identified critical risk and safety issues at the project and, therefore, the project cost is expected to increase substantially. Present estimate is based on known phases of work to be accomplished.

2/ Does not include original project allocations.

3/ Percent of estimated Federal cost is based on estimated modification cost, which is under review.

4/ Balance to complete is to be determined, based on cost estimate review and projections of work to be done.

JUSTIFICATION: Project categorized as Dam Safety Action Classification (DSAC) II project in the Corps' Screening Portfolio Risk Assessment (SPRA) in 2005, which is an "Urgent" safety classification. The DSA Program provides for modification of completed Corps dam projects which are potential safety hazards in light of present-day engineering standards. An Issue Evaluation Study (IES) risk assessment done by Bureau of Reclamation and Corps personnel identified an unacceptable level of risk and life safety issues at the project. The Project Delivery Team with international experts and experts from academia is addressing several issues related to scour and rock strengths in an effort to strategically reduce risk levels at the project. The Interim Risk Reduction Measures Plan is being updated accordingly. Congressional/state/local briefings were held in November 2008 and emergency exercises were performed in December 2008 and January 2009, with state and local entities participating. All affected counties received local leadership briefings and public meetings were held in all counties. Based on a downstream hazard assessment, there is sufficient justification to modify the project to accommodate 100% of the Probable Maximum Flood. It has been determined that there is a 4.7% annual probability that Bluestone Dam will reach a pool that threatens the dam's stability, the Imminent Failure Flood (IFF) elevation. Failure would cause catastrophic flooding along the Greenbrier, New, Gauley, Kanawha, and Elk Rivers and at the heavily industrialized state capital of Charleston, WV, putting 104,000 people at risk with property damages in excess of \$12,000,000,000. Average annual benefits, all flood control, are \$80,493,000.

Division: Great Lakes & Ohio River

District: Huntington

Bluestone Lake Dam Safety Assurance, WV

FISCAL YEAR 2011: The requested amount will be applied as follows:

Continue Phases 3 and 4 Construction	\$ 5,500,000
Initiate and complete interim risk management activities	\$ 4,600,000
Continue Planning, Engineering and Design	\$ 3,600,000
Continue Construction Management	\$ 1,300,000
Total	\$ 15,000,000

FISCAL YEAR 2012: The requested amount will be applied as follows:

Continue Phase 3 E&D and S&A	\$ 3,600,000
Initiate Remaining Phase 3 Options	20,000,000
Initiate Phase 4 Construction / IRR Anchoring	43,400,000
Continue Phase 5 Engineering & Design	2,500,000
Continue Mapping, Modeling, & Instrumentation	500,000
Total	\$ 70,000,000

NON-FEDERAL COST: None. The DSA modification is being performed at full Federal expense.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$310,000,000 is an increase of \$78,000,000 from the latest estimate presented to Congress (FY 2011). This change includes the following items:

Design Changes	\$30,000,000
Authorized Modifications	48,000,000
Total	\$78,000,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT COMPLIANCE: The final Environmental Impact Statement was filed with EPA on August 31, 1998.





OTHER INFORMATION: The Bluestone Dam, WV, Final Evaluation Report and Environmental Impact Statement were approved August 13, 1998. The scheduled completion date is the same as the latest presented to Congress (FY 2011), "To Be Determined."





Division: Great Lakes & Ohio River

District: Huntington

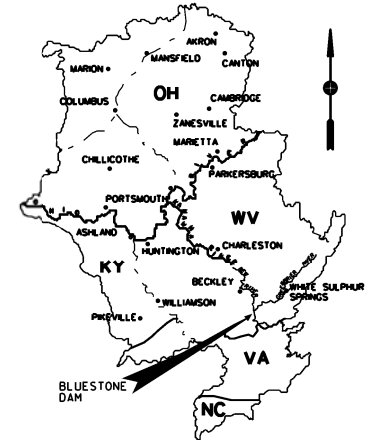
Bluestone Lake Dam Safety Assurance, WV

STATUS OF WORK

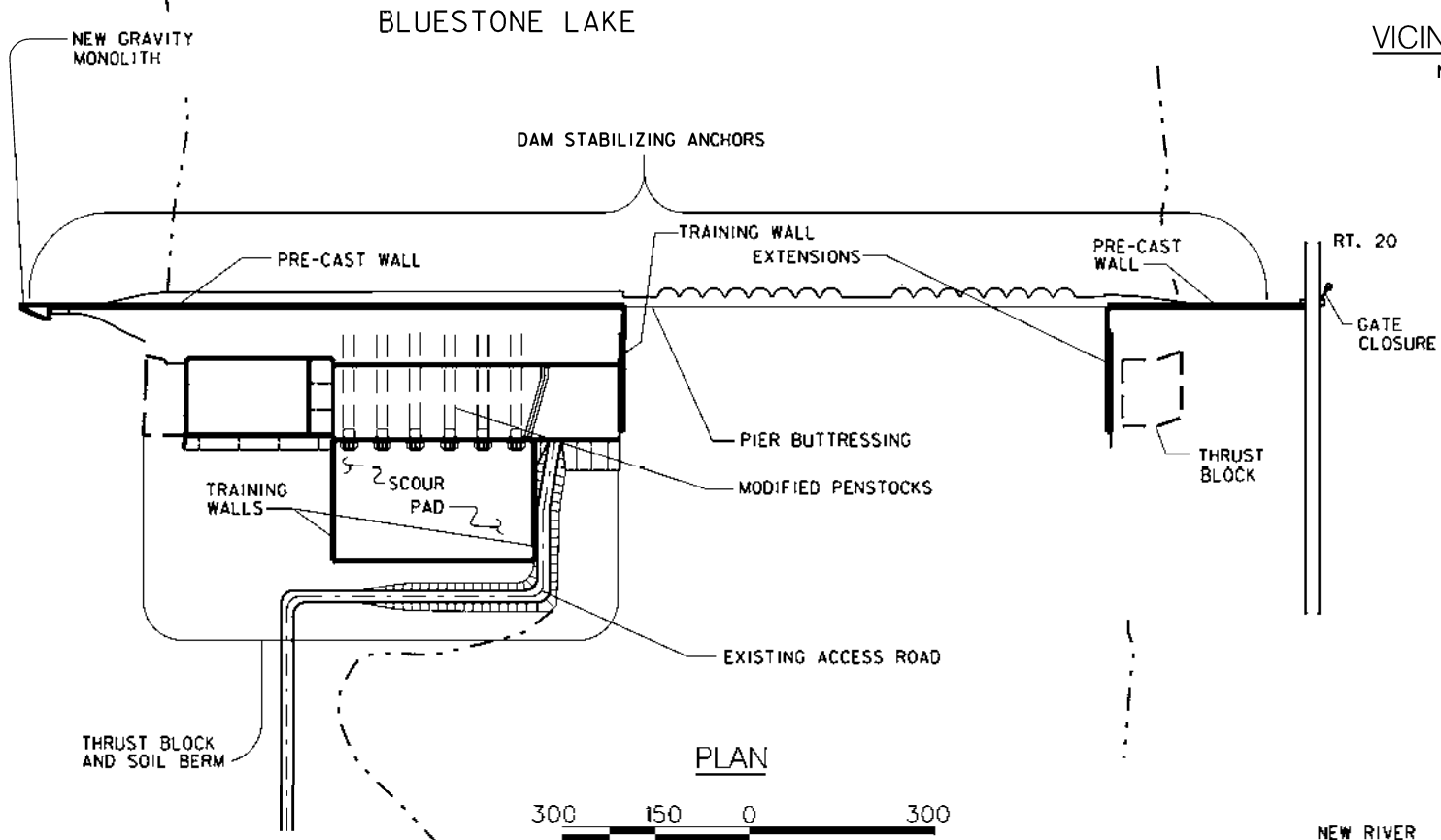
				
DAM	72%	5%	23%	TBD

-  WORK COMPLETED
-  WORK UNDERWAY WITH FUNDS AVAILABLE FOR F.Y. 2011
-  WORK PROPOSED WITH FUNDS REQUESTED FOR F.Y. 2012
-  WORK REQUIRED TO COMPLETE THE PROJECT AFTER F.Y. 2012

(TOTAL PROJECT COST IS UNDER REVIEW)



VICINITY MAP
N.T.S.



PLAN

300 150 0 300
SCALE: 1" = 300'

NEW RIVER
BLUESTONE DAM SAFETY ASSURANCE
HUNTINGTON DISTRICT
GREAT LAKES AND OHIO RIVER DIVISION

14 FEBRUARY 2011

LRD - 9

APPROPRIATION TITLE: Construction, Flood Risk Management

PROJECT: Center Hill Dam Safety Major Rehabilitation, Caney Fork River, Tennessee (Continuing)

LOCATION: Center Hill Dam is located at Mile 26.6 on the Caney Fork River in DeKalb County, Tennessee, 55 miles east of Nashville, Tennessee.

DESCRIPTION: Center Hill Dam has been in service for 60 years providing flood control, hydropower, recreation, water supply and water quality benefits. The Dam has a maximum height of 250 feet and consists of a 1,382 foot long concrete section, a 778 foot long rolled earth embankment and a 125 foot high by 770 foot long earthen saddle dam in the right rim. The dam impounds 2,092,000 acre-feet at its maximum flood control pool elevation. Since construction, seepage problems through the karst limestone dam foundation have cost millions of dollars in monitoring, subsurface investigation and grouting. Over recent years, seepage has increased. Foundation conditions are deteriorating because of erosion along open and clay-filled joints and solution features in the rock within the rims and dam foundation. Erosion jeopardizes the two earthen embankments, the left abutment and the integrity of the left rim. The Major Rehabilitation Evaluation Report dated 30 May 2006 evaluated several alternatives to improve the long term reliability of the dam. The recommended alternative, which has been modified as subsurface information is obtained, includes: 1) a grout curtain into main embankment foundation, left groin and left rim, approximately 4,000 feet long, 2) a concrete barrier wall into foundation of main dam embankment, 3) a Roller Compacted Concrete (RCC) Stability Berm below the Saddle Dam Embankment, and 4) rehabilitation of Station Service Power House hydropower unit to improve reliability and enhance environmental performance. This work on the 2-MW unit is needed to mitigate downstream flow loss resulting from the remedial work. Major Rehabilitation Evaluation Report was approved July 14, 2006.

AUTHORIZATION: Flood Control Act of 1938 and the River and Harbor Act of 1946

REMAINING BENEFIT-REMAINING COST RATIO: 2.6 at 7.0 percent

TOTAL BENEFIT-COST RATIO: 2.6 at 7.0 percent

INITIAL BENEFIT-COST RATIO: 3.4 at 5 1/8 percent (FY 2006)

BASIS OF BENEFIT-COST RATIO: Benefits are from the latest available evaluation, dated July 2006, at January 2006 price levels

SUMMARIZED FINANCIAL DATA		STATUS (1 Jan 2011)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	\$ 295,000,000			
Programmed Construction	295,000,000	Entire Project	37	TBD
Total Estimated Project Cost	\$ 295,000,000			

Division: Great Lakes and Ohio River

District: Nashville

Center Hill Dam Safety Major Rehab, TN

PHYSICAL DATA

Cutoff Wall 900 feet long, Grout Curtain 3,000 feet long

SUMMARIZED FINANCIAL DATA (Continued)

		ACCUM PCT OF EST FED COST
Allocations to 30 September 2008	\$ 38,588,000	
Allocation for FY 2009	36,102,000 1/	
Allocation for FY 2010	52,907,000	
President's Budget for FY 2011	77,800,000	
Allocation for FY 2011	77,800,000	
Allocations through FY 2011	205,397,000	70
Budget for FY 2012	78,700,000	96
Programmed Balance to Complete after FY 2012	10,903,000	
Unprogrammed Balance to Complete after FY 2012	\$ 0	

1/ Reflects \$15M reprogrammed to Wolf Creek Dam Safety Major Rehabilitation project.

JUSTIFICATION: Continued, uncontrolled seepage creates the potential for dam failure or partial loss of the reservoir. Karst foundation seepage is difficult to accurately predict, however, in the event of failure, downstream damages would likely exceed a billion dollars. There is probable loss of life associated with dam failure.

FISCAL YEAR 2011: The allocated amount will be applied as follows:

Continue Barrier Walls, Grouting Concrete Dam	\$67,700,000
Planning, Engineering and Design	4,900,000
Construction Management	5,200,000
Total	\$77,800,000

FISCAL YEAR 2012: The requested amount will be applied as follows:

Continue Barrier Wall	\$51,000,000
Planning, Engineering and Design	5,000,000
Construction Management	5,500,000
Initiate RCC Berm at Saddle Dam	17,200,000
Total	\$78,700,000

Division: Great Lakes and Ohio River

District: Nashville

Center Hill Dam Safety Major Rehab, TN

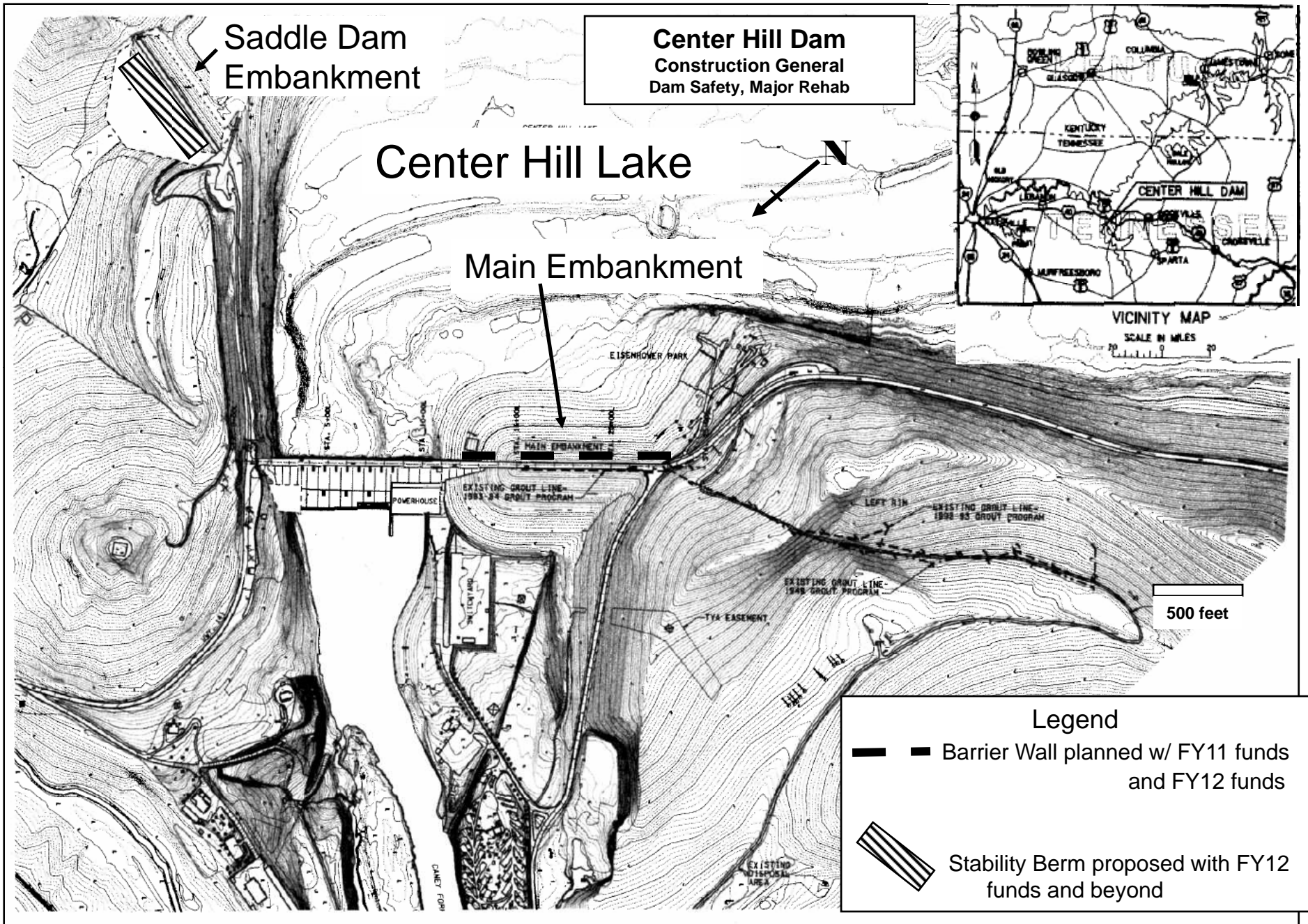
STATUS OF LOCAL COOPERATION: This Major Rehabilitation project is designed as a reliability-based improvement. There are no anticipated efficiency benefits. The project will require full initial federal funding. There are two classes of users that will be required to share in the final cost of this project, the water supply and hydropower customers. Three water supply users currently have signed agreements with Nashville District. The users are the Cities of Cookeville and Smithville plus Riverwatch Resort. Hydropower from the project is marketed through the Southeastern Power Administration (SEPA). SEPA will repay their share of the costs by periodic direct payment to the U.S. Treasury after construction.

COMPARISON OF FEDERAL COST ESTIMATES: The current cost estimate of \$295,000,000 is an increase of \$3,000,000 from the latest estimate (\$292,000,000) presented to Congress (FY2011). The change includes the following items.

Item	Amount
Price Level Updating and Inflation	\$3,000,000
Total	\$3,000,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT COMPLIANCE: An environmental assessment (EA) was completed early in the study process and a finding of no significant impact (FONSI) was signed in July 2005. An EA Supplement was completed to address additional alternatives and the FONSI was signed in May 2006. A second supplemental EA was completed in December 2007 to address specific grouting methods proposed by potential construction contractors. An EIS evaluating lower lake level alternatives during construction was completed in November 2007 and a Record of Decision (ROD) was signed in February 2008.

OTHER INFORMATION: Probable loss of life with dam failure is 357, with a range from 184 to 533. The 2005 Corps-wide Screening Portfolio Risk Assessment for Dam Safety ranked Center Hill Dam in Class I category for Corps dams nationwide. ASA(CW) concurred with the report recommendations on August 14, 2006. Design for construction began in FY 2007 utilizing Dam Safety and Seepage/Stability Correction Program funds. The first major construction contract was awarded in February 2008. The second major contract is planned to be awarded in Apr 2011.



APPROPRIATION TITLE: Construction, Flood Risk Management

PROJECT: Des Plaines River, IL, Local Protection (Flood Control) (Continuing)

LOCATION: The project area is located in Lake & Cook Counties in northeastern Illinois, having a drainage area of approximately 500 square miles.

DESCRIPTION: The project consists of six elements: two levee units, expansion of two existing reservoirs, raising of one existing dam to increase storage, and construction of one new lateral storage area, as well as environmental mitigation. Both levee units are a combination of floodwalls, levees, and closure structures; and both provide residents with a 100-year level of protection in addition to significant transportation benefits.

AUTHORIZATION: Water Resources Development Act of 1999, P. L. Number 106-53, Section 101, 113 Stat, 280.

REMAINING BENEFIT-REMAINING COST RATIO: 2.6 to 1 at 7 percent

TOTAL BENEFIT-COST RATIO: 1.8 to 1 at 7 percent

INITIAL BENEFIT-COST RATIO: 1.6 to 1 at 6 5/8 percent

BASIS OF BENEFIT-COST RATIO: Benefits are from the latest approved feasibility report, dated June 1999 at October 1998 price levels.

SUMMARIZED FINANCIAL DATA

		STATUS (1 Jan 2011)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	\$ 67,000,000	Entire Project	40	To be determined
Estimated Non-Federal Cost	36,000,000			
Cash Contributions	5,150,000			
Other Costs	30,850,000			
Total Estimated Project Cost	\$103,000,000			
		PHYSICAL DATA		
		Levees and Floodwalls		2 Miles
		Reservoirs		1,063 Acre Feet
		Dam		500 Acre Feet
		Storage Areas		412 Acre Feet

Division: Great Lakes and Ohio River

District: Chicago

Des Plaines River, IL

ACCUM.
PCT. OF EST.
FED. COST

Allocations to 30 September 2008	\$ 18,521,000	
Allocation for FY 2009	6,000,000	
Allocation for FY 2010	4,729,000	
President's Budget for FY 2011	6,500,000	
Recovery Act Allocations as of 31 Dec 2010	1,620,000	
Allocation for FY 2011	6,500,000	
Allocations through FY 2011	37,370,000	56
Allocation Requested for FY 2012	1,000,000	57
Programmed Balance to Complete After FY 2012	28,630,000	
Unprogrammed Balance to Complete after FY 2012	0	

JUSTIFICATION: The Des Plaines River has a long history of frequent floods causing significant economic losses in the Chicago metropolitan area. 1986 / 1987 flooding of the Des Plaines River resulted in an estimated \$100,000,000 in damages to this densely populated area of 10,000 dwellings and 300 commercial / industrial sites. Flooding also resulted in closure of Interstate 90 / 94 and severely disrupted the entire Chicago metropolitan area transportation network, including closure of O'Hare International Airport, the first time ever for a non-winter event, for over 24 hours. O'Hare was surrounded by floodwaters and egress for stranded passengers was possible only by foot down Interstate 90. Over 15,000 residents were evacuated from the flooded area. 7 fatalities were associated with this flood event including 6 deaths related to basement flooding which included electrocution and 1 death due to drowning during evacuation. Portions of the watershed are among the most rapidly developing in the Chicago metro area. Near record flooding occurred again in 2007, resulting in damage to structures, road closures and 1 fatality. Population density; residential and commercial development; and flat topography still result in substantial risks to life and safety despite lower flood depths and velocities as well as significant damages to 73 municipalities in the watershed. Flooding affects residential, commercial and industrial structures, and the large, dense transportation network in this area of over 800,000 residents. Additionally, there are detrimental effects to communication systems, emergency egress, safe drinking water supply and hospitals. The Governor of Illinois declared the Lake and Cook Counties area of the Des Plaines watershed a disaster area during May 2004 and August 2007 flood events. August 2007 flooding caused annual damages and economic impacts of \$40,000,000 in the uncompleted portion of the project area. Flooding caused evacuation of residents and numerous road closings for over a week. On Friday, October 3, 2008, President Bush declared the Chicago area a disaster area, enabling people hurt by the disastrous flooding following near-record rainfall beginning September 13th to seek federal help in recovery. The September 2008 event was equivalent to the flood of record causing an estimated \$87,000,000 in damages. This project will reduce significant residential, commercial, industrial, and transportation damages by reducing river stages and duration of flooding. This project, in addition to preventing damages to property, is effective in reducing risk to life for the populations in the project area. That risk must be considered in evaluating the project justification in addition to economic analyses. Risk is created by both hydrologic factors (flood depth, velocity, and short warning time) and cultural factors (size of population and available routes of egress from the flood plain.) Risks affect communication, emergency egress, drinking water and hospitals and large population. The FY 2011 Budget includes funding for this project primarily to address significant risk to human safety. Average annual flood damage benefits are estimated at \$9,961,000 for the entire Des Plaines River, IL project.

Division: Great Lakes and Ohio River

District: Chicago

Des Plaines River, IL

FISCAL YEAR 2011: The current amount is being applied as follows:

Complete construction of Levee 37	\$ 5,000,000
Construct Van Patten Woods	1,000,000
Engineering and Design	200,000
Construction Management	300,000
Total	\$ 6,500,000

FISCAL YEAR 2012: The requested amount will be applied as follows:

Construct Van Patten Woods	\$ 850,000
Engineering and Design	50,000
Construction Management	100,000
Total	\$ 1,000,000

NON-FEDERAL COST: In accordance with the cost sharing and financing requirements contained in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payment During Construction and Reimbursements	Annual Operation, Maintenance, Repair Rehabilitation, and Replacement Costs
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas.	\$9,977,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project, which may be reduced for credit allowed based on prior work (Section 104 of the Water Resource Development Act of 1986) after reductions for such credit have been made in the required cash payments.	20,873,000	
Pay 5 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 35 percent and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	5,150,000	\$390,000
Total Non-Federal Costs	\$36,000,000	\$390,000

The non-Federal sponsor has agreed to make all required payments concurrently with project construction.

Division: Great Lakes and Ohio River

District: Chicago

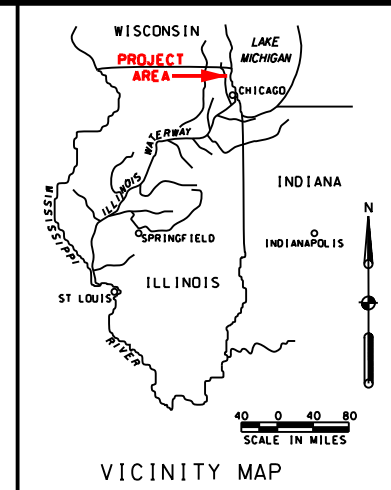
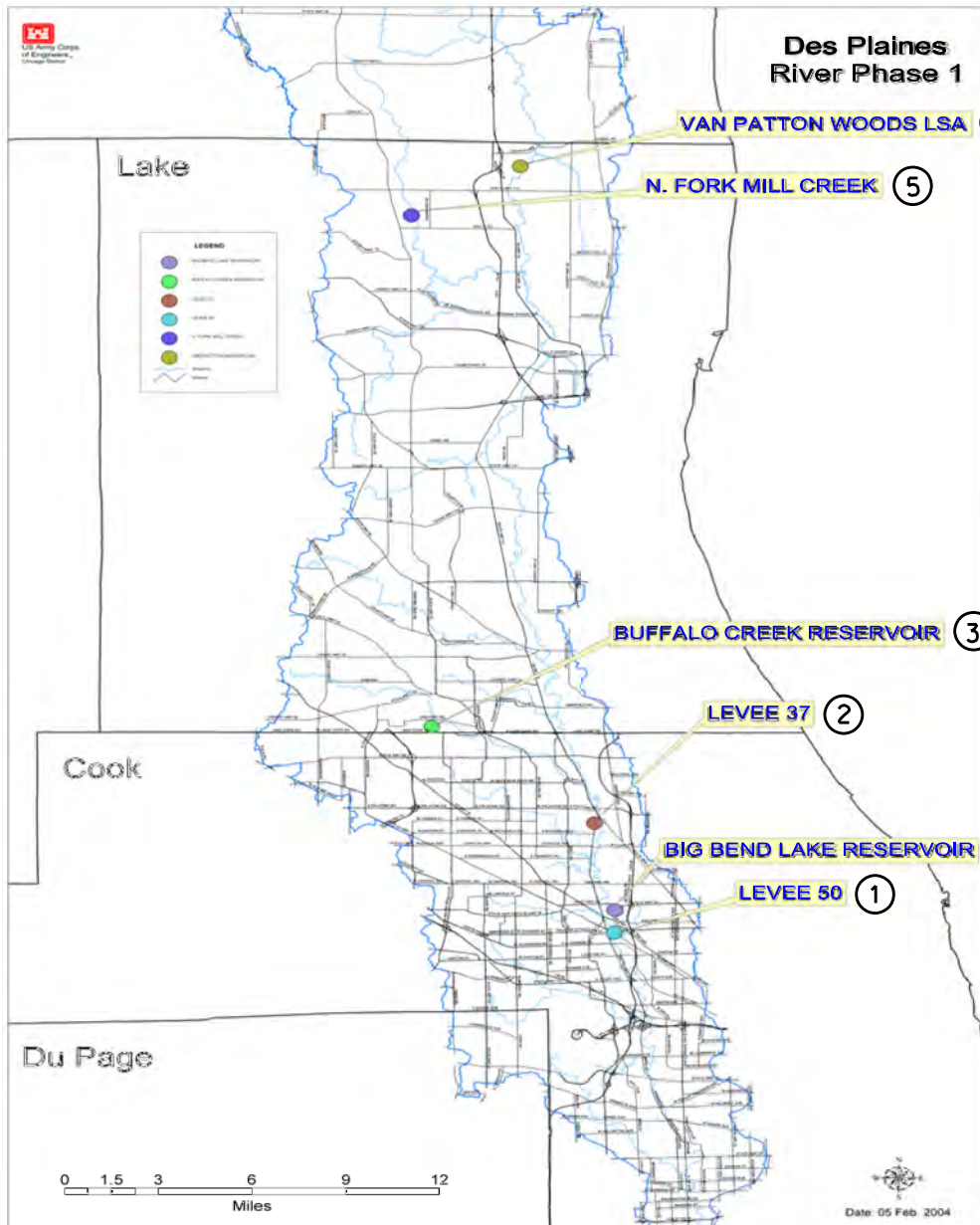
Des Plaines River, IL

STATUS OF LOCAL COOPERATION: The State of Illinois is the local sponsor for the project. The Project Cooperation Agreement (PCA) was executed on 12 Oct 2007. The local sponsor has received ASA(CW)'s approval for Section 104 credit in the amount of \$14,711,000.

COMPARISON OF FEDERAL COST ESTIMATE: The Federal cost estimate of \$67,000,000 is an increase of \$6,000,000 over the previously estimated cost of \$61,000,000, last presented to Congress (FY 2011). This increase is due to price levels, inflation adjustments and post contract award adjustments.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement (EIS) was filed with the United States Environmental Protection Agency on 15 July 1999. The Record of Decision was signed on 5 January 2000. A supplemental EIS was filed on 11 May 2006. The Record of Decision was signed on 16 June 2006.

OTHER INFORMATION: Funds to initiate PED were appropriated in FY 1998. The local sponsor initiated and completed construction of gates in FY1999 and awarded a pump station contract in June 2003 that was completed in FY 2005. The local sponsor awarded a construction contract of the final phase of Levee 50 in FY 2006, which is scheduled to be completed by September 2010. The scheduled completion date is the same as the latest presented to Congress (FY 2011), "To Be Determined".



SCHEDULES	Project No.
WORK COMPLETED AS OF 30 SEPTEMBER 2010	1
WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2011	2, 6
WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2012	6
WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2012	2, 3, 4, 5, & 6

NOTE:

- ① LEVEE 50 CONSTRUCTED BY NON-FEDERAL SPONSOR

DES PLAINES RIVER
ILLINOIS

CHICAGO DISTRICT
GREAT LAKES AND
OHIO RIVER DIVISION

APPROPRIATION TITLE: Construction, Flood Risk Management

PROJECT: Dover Dam, Muskingum River, OH Dam Safety Assurance (DSA) (Continuing)

LOCATION: The Dover Dam is located on the Tuscarawas River, a tributary of the Muskingum River, in Tuscarawas County, OH. The dam is located 173.6 miles above the mouth of the Muskingum River.

DESCRIPTION: The Dover Dam is a concrete gravity dam. The dam was constructed by the Corps of Engineers and completed in 1937. The dam is 820 feet long and 69 feet high with a drainage area of 1397 square miles. Dover Dam is a dry dam allowing the Tuscarawas River to flow freely through the dam for a significant portion of time and only retains water when necessary for flood protection and flood damage reduction. The pool of record occurred in January 2005. Dover Dam was categorized as a Dam Safety Action Classification (DSAC) II project in the Corps' Screening Portfolio Risk Assessment (SPRA), which is an "Urgent" safety classification.

AUTHORIZATION: Section 4 of the Flood Control Act (FCA) of 1938 (P.L. 75-761) as amended by Section 4 of FCA 1939 (P.L. 76-398) as amended by Title XII of the Water Resources Development Act of 1986 (P.L. 99-662) for DSA.

REMAINING BENEFIT – REMAINING COST RATIO: Not applicable

TOTAL BENEFIT – COST RATIO: Not applicable

INITIAL BENEFIT – COST RATIO: Not applicable

BASIS OF BENEFIT – COST RATIO: Not applicable

SUMMARIZED FINANCIAL DATA:	ACCUM	STATUS	PERCENT	PHYSICAL
ORIGINAL PROJECT	PCT OF EST	(1 Jan 2011)	COMPLETE	COMPLETION
	FED COST	Entire Project	5	SCHEDULE
				TBD

SUMMARIZED FINANCIAL DATA:		ACCUM	STATUS	PERCENT	PHYSICAL
ORIGINAL PROJECT		PCT OF EST	(1 Jan 2011)	COMPLETE	COMPLETION
		FED COST	Entire Project	5	SCHEDULE
					TBD
Actual Federal Cost	\$	26,590,000			
Actual Non-Federal Cost		8,000,000			
Cash Contributions	8,000,000				
Other Costs		0			
Total Original Project Cost	\$	34,590,000	1/		

PHYSICAL DATA:
Corrective measures to be undertaken are identified in the Design Documentation Report and are being outlined in the Plans and Specifications.

Division: Great Lakes & Ohio River

District: Huntington

Dover Dam, Muskingum River, OH
Dam Safety Assurance

PROJECT MODIFICATION

			ACCUM PCT OF EST FED COST
Estimated Federal Cost	\$	67,700,000	
Estimated Non-Federal Cost		2,420,000	
Cash Contributions	2,420,000		
Other Costs	0		
Total Estimated Modification Cost		70,120,000	1/
Total Estimated Project Cost	\$	104,710,000	
Allocations to 30 September 2008	\$	5,389,000	
Allocation for FY 2009		3,833,000	
Allocation for FY 2010		17,478,000	2/
Recovery Act Allocations as of 31 Dec 2010		0	
President's Budget for FY 2011		36,000,000	
Allocation for FY 2011		36,000,000	
Allocations through FY 2011		62,700,000	93
Budget for FY 2012	\$	5,000,000	100
Programmed Balance to Complete after FY 2012		0	
Unprogrammed Balance to Complete after FY 2012		0	

1/ Represents the total cost of 14-dam Muskingum Basin system, of which \$7,755,300 can be attributable to Dover Dam.

2/ Does not include O&M allocations of \$257,900 for study costs.

JUSTIFICATION: Dover Dam was classified as a DSAC II in the Corps' SPRA. The Dover Dam is hydrologically deficient – it will not safely pass the spillway design flood. The imminent failure flood is below the spillway crest. Periodic inspections of the Dover Dam by the Corps have revealed significant dam safety concerns which have grown over the life of the dam. The Corps has determined the dam cannot safely accommodate the Probable Maximum Flood (PMF) event. The dam is also believed to be unstable against sliding under conditions below the PMF due to known faulting and uncertain foundation bedrock quality. The imminent failure flood is below the spillway crest. If a failure were to occur, the estimated population at risk is 41,000 and the potential economic damages are \$658,000,000.

FISCAL YEAR 2011: The amount provided will be applied as follows:

Continue DSA Anchoring Construction	\$	32,900,000
Continue Engineering and Design During Construction		1,200,000
Continue Construction Management		1,900,000
Total	\$	36,000,000

Division: Great Lakes & Ohio River

District: Huntington

Dover Dam, Muskingum River, OH
Dam Safety Assurance

FISCAL YEAR 2012: The requested amount will be applied as follows:

Complete DSA Anchoring Construction	\$ 4,450,000
Complete Engineering and Design During Construction	220,000
Complete Construction Management	330,000
Total	\$ 5,000,000

NON-FEDERAL COST: In accordance with Section 1203 of the Water Resources Development Act of 1986 (Public Law 99-662), as amended, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual OMRR&R Costs
Pay 3.45 percent of the costs of the DSA corrective measures that are allocated to project purposes (3.45 percent of total project costs).	\$ 2,420,000	\$ 0
Total Non-Federal Costs	\$ 2,420,000	\$ 0

STATUS OF LOCAL COOPERATION: A Project Partnership Agreement (PPA) was executed with the non-Federal partner, the Muskingum Watershed Conservancy District (MWCD) on 24 July 2009. The non-Federal sponsor has agreed to make all required payments concurrently with project construction.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$67,700,000 is a decrease of \$29,650,000 from latest estimate (\$29,650,000) presented to Congress (FY 2011). This change includes the following items:

Post Contract Award and other Estimating Adjustments	-\$ 29,650,000
Total	-\$29,650,000

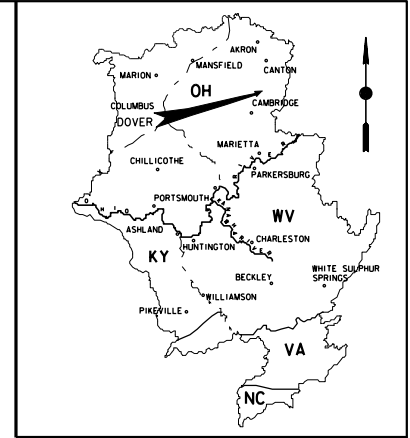
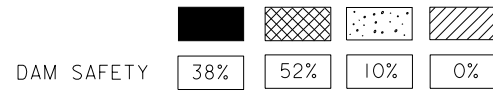
STATUS OF ENVIRONMENTAL IMPACT STATEMENT COMPLIANCE: The Environmental Impact Statement was prepared in conjunction with the Evaluation Report. The Evaluation Report was approved July 2007 and a concurrence memorandum from the ASA(CW) is dated 30 January 2008.

OTHER INFORMATION: None.

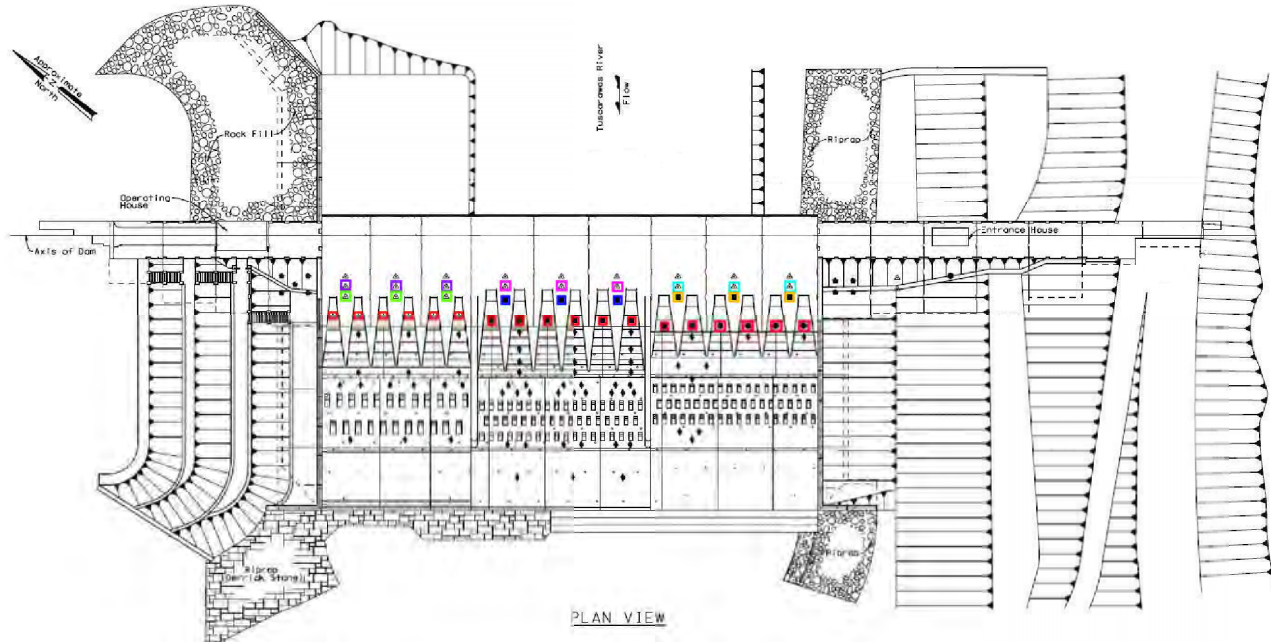
Division: Great Lakes & Ohio River

District: Huntington

Dover Dam, Muskingum River, OH
Dam Safety Assurance



VICINITY MAP
N.T.S.



STATUS OF WORK

- WORK COMPLETED
- WORK UNDERWAY WITH FUNDS AVAILABLE FOR F.Y. 2011
- WORK PROPOSED WITH FUNDS REQUESTED FOR F.Y. 2012
- WORK REQUIRED TO COMPLETE THE PROJECT AFTER F.Y. 2012

MUSKINGUM RIVER
DOVER DAM
 HUNTINGTON DISTRICT
 GREAT LAKES AND OHIO RIVER DIVISION
 LRD - 22

14 FEBRUARY 2011

APPROPRIATION TITLE: Construction, Flood Risk Management

PROJECT: Dickenson County, VA Element of the Tug and Levisa Forks of the Big Sandy and Upper Cumberland Rivers, WV, KY, VA Project (Continuing)

LOCATION: Dickenson County is located in southwestern Virginia and is situated between Buchanan and Wise counties along the Kentucky border. It is approximately 40 miles north of Bristol, Virginia / Tennessee and 150 miles west of Roanoke, Virginia.

DESCRIPTION: Primary components of the Dickenson County project include a voluntary floodproofing and floodplain evacuation program, school relocations for Ervinton HS, Sandlick Elementary School, and the lower buildings of Haysi HS, and a ringwall to provide protection for Clinchco Elementary School. However, an alternate plan for the four schools has been developed by Dickenson County Public Schools (DCPS) that would provide the intended benefits for the schools in this project. The government is negotiating with the DCPS on a Relocation Agreement to accomplish the school component of the project. Minimum level of protection afforded to the voluntary nonstructural participant is equivalent to the April 1977 flood or 100-year flood elevation, whichever is greater. In addition, a regional flood warning system for the Levisa and Russell Forks in Virginia, and emergency evacuation plans for each Section 202 county of Virginia will be prepared and provided to local and state emergency services programs.

AUTHORIZATION: Section 202 of the Energy and Water Development Appropriation Act of 1981 (P.L. 96-367); as amended by Section 352 of WRDA 1996 (P. L. 104-303); as amended by Section 336 of WRDA 2000 (P.L. 106-543) – Buchanan and Dickenson Counties.

REMAINING BENEFIT-REMAINING COST RATIO: N/A

TOTAL BENEFIT-COST RATIO: N/A

BASIS OF BENEFIT-COST RATIO: N/A

Note: An overall project benefit-cost ratio was not computed because the Congress, in the Energy and Water Development Appropriations Act, 1981, found that the benefits attributable to the flood control measures authorized by the Act exceed their costs.

SUMMARIZED FINANCIAL DATA:		ACCUM PCT OF EST FED COST	STATUS (1 Jan 2011)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	\$ 96,900,000		Entire Project	8%	TBD
Programmed Construction	96,900,000				
Unprogrammed Construction	0				
Estimated Non-Federal Cost	5,100,000				
Cash Contributions	5,100,000				
Other Costs	0				
Total Estimated Project Cost	\$ 102,000,000				
Division: Great Lakes and Ohio River		District: Huntington			Tug and Levisa Forks of the Big Sandy and Upper Cumberland Rivers, VA (Virginia Element)

SUMMARIZED FINANCIAL DATA:
(Continued)

Allocations to 30 September 2008	84,500	
Allocation for FY 2009	0	
Allocation for FY 2010	2,750,000	
Recovery Act Allocations as of 31 Dec 2010	0	
President's Budget for FY 2011	19,500,000	
Allocation for FY 2011	19,500,000	
Allocations through FY 2011	22,334,500	23
Budget for FY 2012	5,000,000	28
Programmed Balance to Complete after FY 2012	69,565,500	
Unprogrammed Balance to Complete after FY 2012	\$ 0	

ACCUM
PCT OF EST
FED COST

HS, and a ringwall to provide protection for Clinchco Elementary School; regional flood warning system for the Levisa and Russell Forks in Virginia; and emergency evacuation plan

JUSTIFICATION: Dickenson County, VA - The April 1977 flood caused \$20 million in damages and varied from a 88-year flood event to a 100-year flood event in the Dickenson County project area. The study area includes all areas flooded during the April 1977 flood along the Russell Fork and upstream tributaries in Dickenson County, Virginia. Approximately 225 structures are included in the study area. Additionally, it should be noted that flooding occurring in the mountains of southwestern Virginia is flash-flooding, with less than one hour warning time for area residents. Floods are very destructive due to steep stream gradients, debris loads, and sediment from the high flows. Four schools are located either in the floodway or are inundated by April 1977 floodwaters to depths ranging over eight feet. With only minutes of warning time available in the county, the students in these schools are in an extremely high risk flood zone.

The flood warning and emergency evacuation plans (FWEEP) are critical to lowering risk to residents, not only in terms of economic damages but also the threat to loss of life. Four schools in the project area are in use and three of them are located in the floodway, the highest risk area associated with floodplains. Project implementation including school relocations, along with a state-of-the-art FWEEP, greatly reduces the risk of catastrophic consequences.

FISCAL YEAR 2011: The current amount will be applied as follows:

Complete FWEEP Implementation for Buchanan and Dickenson Counties	\$ 150,000
Execute Schools Relocation Agreement(s) with DPS	60,000
Initiate / Complete Plans and Specs for Dickenson County School Relocations	2,850,000
Initiate / Complete Real Estate Acquisition for School Relocations	1,500,000
Initiate Construction of Schools	\$ 14,940,000
Total	\$ 19,500,000

Division: Great Lakes and Ohio River

District: Huntington

Tug and Levisa Forks of the Big Sandy and Upper Cumberland Rivers, VA (Virginia Element)

FISCAL YEAR 2012: The requested amount will be applied as follows:

Continue Dickenson County Schools Relocations	\$	3,500,000
Continue Engineering and Design During Construction		1,000,000
Continue Supervision and Administration		500,000
Total	\$	5,000,000

NON-FEDERAL COST: Construction cost sharing is required in accordance with Section 103 of WRDA 1986 (P. L. 99-662). Per that language, the sponsor of each project element for which construction is initiated after 30 April 1986 must provide lands, easements, rights-of-way, and borrow and excavated or dredged material disposal areas (LERRDs); modify or relocate buildings, utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the element; pay a cash contribution of no less than 5 percent of the costs allocated to structural flood control to bring the total non-Federal share of structural flood control costs to 25 percent; and bear 25 percent of non-structural flood control costs, including the value of real estate interests and relocations contributed by the sponsor.

In accordance with Section 103(m) of WRDA 1986 (P. L. 99-662), these requirements are subject to the ability of the non-Federal sponsor to pay. As a result, the non-Federal share for Dickenson County is 5% of the total project costs.

In accordance with Section 202, Energy and Water Development Appropriations Act, 1981 (P. L. 96-367) and WRDA 1986, (P. L. 99-662), non-Federal interests must bear all costs of operation, maintenance, and replacement of completed facilities.

STATUS OF LOCAL COOPERATION: A Project Cooperation Agreement for the Dickenson County nonstructural element was executed in January 2005 with the Dickenson County Board of Supervisors.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$102,000,000 for Dickenson County, Virginia is unchanged from the previous estimate presented to Congress (FY 2011).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT COMPLIANCE: An Environmental Assessment (EA) and the FONSI were executed for Dickenson County on 2 June 2003.

OTHER INFORMATION: None.


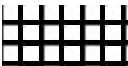


Division: Great Lakes and Ohio River

District: Huntington

Tug and Levisa Forks of the Big Sandy and Upper Cumberland Rivers, VA (Virginia Element)



STATUS OF WORK

- Work Completed 
- Work underway with Funds Available for FY 2011 
- Work Proposed with Funds Requested for FY 2012 
- Work Required to Complete the Project after FY 2012 

NONSTRUCTURAL WORK    

Dickenson County, VA 6% 19% 20% 55%

LEVISA AND TUG FORKS OF THE BIG SANDY RIVER AND UPPER CUMBERLAND RIVER WEST VIRGINIA, VIRGINIA AND KENTUCKY – VIRGINIA ELEMENT

HUNTINGTON DISTRICT
GREAT LAKES & OHIO RIVER DIVISION

APPROPRIATION TITLE: Construction, Flood Risk Management

PROJECT: Little Calumet River, Indiana, Local Protection (Flood Control) (Continuing)

LOCATION: Little Calumet River Basin, Northwest Indiana, Lake County.

DESCRIPTION: The project consists of replacing 9.5 miles of existing spoil bank levees with 12.1 miles of new levees, floodwalls, and closure and appurtenant structures between the Illinois-Indiana State line and Cline Avenue in Gary, Indiana; constructing 9.7 miles of set-back levees and appurtenant drainage structures between Cline Avenue and I-65; installing a flow control structure at Hart Ditch; permanent evacuation of 37 structures in the Black Oak area of Gary, Indiana; constructing a betterment levee from Cline Avenue to Clark Street; modifying 7 miles of channel with 3 accompanying bridge modifications; modifying 1 highway bridge; constructing 16.8 miles of hiking / biking trails and accompanying recreation support facilities, and preserving 788 acres of aquatic wildlife habitat. A Post Authorization Change Report was approved in May 1999 extending the eastern limit of the project to include the Marshalltown area.

AUTHORIZATION: Water Resources Development Act of 1986 (P. L. 104-303);. Energy and Water Development Appropriations of 2006.

REMAINING BENEFIT-REMAINING COST RATIO: 21.42 to 1 at 7 percent

TOTAL BENEFIT-COST RATIO: 1.6 to 1 at 7 percent

INITIAL BENEFIT-COST RATIO: 2.8 to 1 at 8.875 percent

BASIS OF BENEFIT-COST RATIO: Benefits are from the latest available evaluation approved in October 1994 at 1993 price levels. A Post Authorization Change Report was approved in May 1999.

Division: Great Lakes and Ohio River

District: Chicago

Little Calumet River, IN

SUMMARIZED FINANCIAL DATA		STATUS (1 Jan 2011)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	\$206,000,000	Entire Project	88	To Be determined
Estimated Non-Federal Cost	69,000,000			
Cash Contributions	26,732,000			
Other Costs	42,268,000			
Total Estimated Project Cost	\$275,000,000			
		PHYSICAL DATA		
		Levees and Floodwalls		21.8 miles
		Pumping Plant Modifications		17
		Structures Removed		37
		Structures Flood proofed		53
		Channel Modifications		7 miles
		Hiking Trails		16.8 miles
		ACCUM. PCT. OF EST. FED. COST		
Allocations to 30 September 2008	\$132,761,500			
Allocations for FY 2009	24,000,000			
Allocation for FY 2010	20,000,000			
President's Budget for FY 2011	10,000,000			
Recovery Act Allocations as of 31 Dec 10	3,000,000			
Allocation for FY 2011	10,000,000			
Allocations through FY 2011	189,761,500	92		
Budget for FY 2012	9,000,000	96		
Programmed Balance to Complete After FY2012	7,238,500			
Unprogrammed Balance to Complete after FY2012	\$ 0			

JUSTIFICATION: Overbank flood damages occur to 10,000 structures, primarily residential, along the Little Calumet River in Indiana within the communities of Hammond, Highland, Munster, Griffith and Gary. The total value of these structures exceeds \$775,000,000. Continued flood damages occur to commercial and public buildings, and the transportation network. The major East / West highway transportation link in the Chicago metropolitan area, Interstate 80 / 94, is susceptible to flooding from the Little Calumet River. Interstate 80/94 is heavily traveled, with average annual daily traffic of 160,000 vehicles, of which 40% are trucks. Annual benefits are estimated at \$18,550,000. Completion of the project will reduce damages from flood events up to the 200-year flood event.

Division: Great Lakes and Ohio River

District: Chicago

Little Calumet River, IN

JUSTIFICATION (Continued):

This project benefits 1,200,000 people and 10,000 dwellings. An estimated \$35,000,000 in flood damages was incurred and one life lost in the November 1990 flood. The communities of Hammond and Munster, IN were inundated. The President declared the area inundated by the November 1990 flood a National Disaster Area on December 6, 1990. The State of Indiana continues to rate the flood damage potential along the Little Calumet River as the most severe in the state. The project avoids the short and long-term adverse impacts associated with the destruction or modification of wetlands by designating the existing wetland areas in the Gary reach for overbank flood storage, a vital requirement of the hydraulic operation and design of the project, and hence required project lands. Environmental attributes are being mitigated along the river corridor. Construction of the Hart Ditch Control structure is required to meet statutory requirements to minimize flow impacts (for all events up to the 100 year) to the State of Illinois communities, resultant from changes to the floodplain / floodway in Indiana as part of the Project. Additionally, the Control Structure minimizes impact to the flow volume attributable to the State of Illinois' Lake Michigan Diversion, which is regulated by Supreme Court Decree. Also critical is rehabilitation of existing pump stations to eliminate risks from interior flooding that could result since the existing system is insufficient to provide significant protection from interior runoff during major storm events along the West Reach of the project. An intense localized rainfall event occurred on September 13, 2006 that was centered over the communities of Highland and Griffith, Indiana resulting in widespread flooding and damage to approximately 1,500 homes. The precipitation event was estimated to be a 600 year event rainfall over these communities. An August 2007 flood breached an existing spoil bank levee resulting in significant flooding. I-80 / 94 was shut down for 3 days due to high river stages and intense rainfall. August 2007 flooding was a 25 year event causing damages and economic impacts of \$27,600,000. There was also severe flooding in September 2008 causing significant damages including breach of existing spoilbank levee, inundating densely populated areas risking life and safety. September 2008 breach occurred without warning, resulting in emergency evacuation of residents. Flooding caused a natural gas explosion and fire, destroying one home & causing significant damage to gas distribution system. September 2008 flooding caused \$87,000,000 in flood damages. FEMA declared Northwest Indiana Federal disaster area in October 2008. The FY 2011 Budget included funding for this project primarily to address significant risk to human safety. The Corps made this determination based on many factors such as the likelihood and magnitude of the potential flooding, the number of people living in the flood plain, the likely warning time, the availability of evacuation routes, and site-specific engineering factors. Lake County, Indiana qualifies as an area of persistent and chronic unemployment.

Average annual benefits are as follows:

Annual Benefits	Amount
Flood Damage Prevention	\$15,917,000
Recreation	411,000
Land Enhancement	2,222,000
Total	\$18,550,000

Division: Great Lakes and Ohio River

District: Chicago

Little Calumet River, IN

FISCAL YEAR 2011: The current amount is being applied as follows:

Complete construction of Stage V-2	\$ 1,300,000
Complete construction of Stage VII	4,000,000
Complete construction of Stage VIII	3,500,000
Initiate construction of Tieback Levees	400,000
Initiate construction of Wetland Mitigation	300,000
Engineering and Design	200,000
Construction Management	300,000
Total	\$10,000,000

FISCAL YEAR 2012: The requested amount will be applied as follows:

Continue construction of Tieback Levees	\$ 5,200,000
Continue construction of Wetland Mitigation	3,000,000
Engineering and Design	50,000
Construction Management	750,000
Total	\$ 9,000,000

NON-FEDERAL COST: In accordance with the cost sharing and financing requirements contained in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payment During Construction and Reimbursements	Annual Operation, Maintenance, Repair Rehabilitation, and Replacement Costs
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas.	\$20,157,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project, reduced for credit allowed based on prior work (Section 104 of the Water Resource Development Act of 1986; \$1,667,200) after reductions for such credit have been made in the required cash payments.	17,017,000	
NON-FEDERAL COST: (continued)		

Division: Great Lakes and Ohio River

District: Chicago

Little Calumet River, IN

Requirements of Local Cooperation	Payment During Construction and Reimbursements	Annual Operation, Maintenance, Repair Rehabilitation, and Replacement Costs
Pay one-half separable costs allocated to recreation and bear all costs of operation, maintenance, repair, rehabilitation and replacement of recreation facilities;	2,967,000	
Pay approximately 5 percent of the costs allocated to flood control (other than non-structural measures) to bring the non-Federal share of flood control costs to 25 percent as determined under Section 103 (m) of the Water Resource Development Act of 1986, as amended; to reflect credit allowed for prior work (Section 104 of the Water Resource Development Act of 1986; \$1,667,200); and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	26,732,000	150,000
Pay 25 percent of the first cost allocated to non-structural flood control measures.	2,127,000	
Total Non-Federal Costs	\$69,000,000	\$ 150,000

STATUS OF LOCAL COOPERATION: The Little Calumet River Basin Development Commission is the local sponsor for the project. The Local Cooperation Agreement (LCA) was executed on August 16, 1990. The LCA was supplemented twice to include the East Reach Remediation, 30 July 1999 and Burr Street Betterment, 26 April 2000. The current non-Federal cost estimate of \$69,000,000, which includes a cash contribution of \$26,732,000, is an increase of \$45,400,000 from the non-Federal cost estimate of \$23,600,000 noted in the Local Cooperation Agreement, which included a cash contribution of \$4,800,000. The non-Federal sponsor is financially capable and willing to contribute the non-Federal share. The local sponsor has received approval for Section 104 credits in the amount of \$1,667,200.

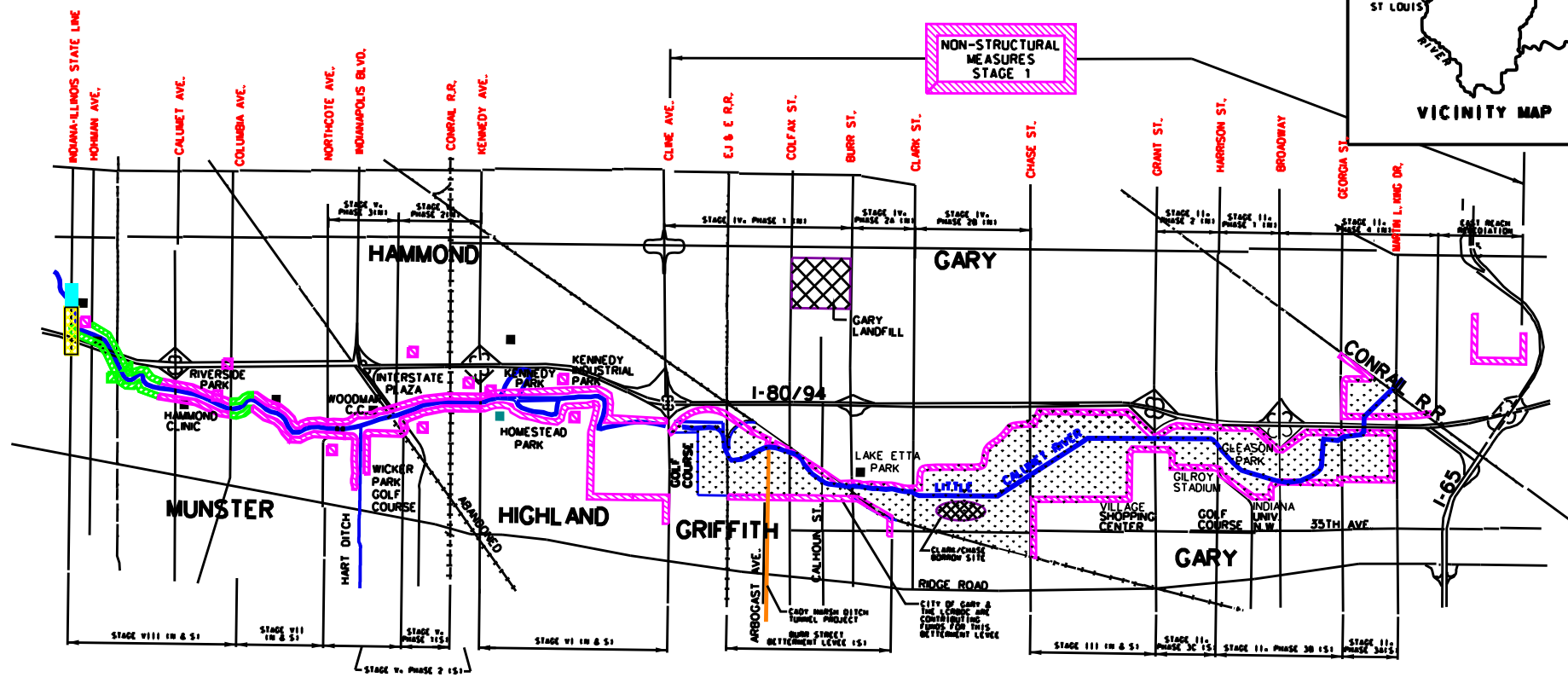
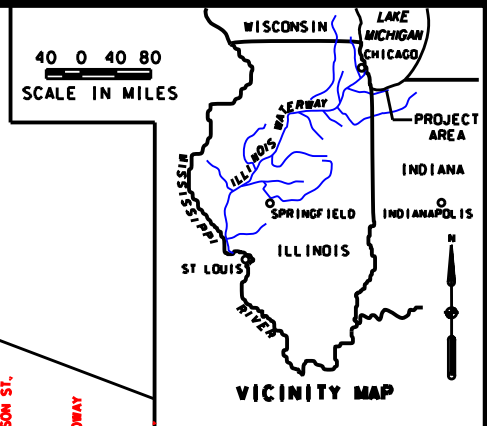
COMPARISON OF FEDERAL COST ESTIMATE: The current Federal cost estimate of \$206,000,000 is an increase of \$11,000,000 from the latest estimate (\$195,000,000) presented to Congress (FY 2011). This change includes the following items:

Item	Amount
Price Escalation on Construction Features	\$ 100,000
Post Contract Award and Other Estimating Adjustments	10,900,000
Total	\$11,000,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement (EIS) was filed with the United States Environmental Protection Agency on February 3, 1984. The Record of Decision was signed on July 13, 1990. Environmental Assessments (EA) were subsequently prepared addressing potential borrow and disposal sites which were not covered in the EIS and the three Findings of No Significant Impact were signed on May 9, 1990, July 11, 1991 and April 21, 1992. A supplemental Environmental Impact Statement was completed for the levee re-alignment, excavated ponding areas and new borrow sites. The Record of Decision was signed on June 23, 1995.

OTHER INFORMATION: Funds to initiate PED were appropriated in FY 1984 and funds to initiate construction were appropriated in FY 1990. Fish and wildlife mitigation costs for this project are estimated at \$5,312,000. This project is expected to exceed the 902 limit. The House version of WRDA 2010, Section 3016 provides an authorization to raise the 902 limit to \$275,000,000. Chicago District is preparing a Post Authorization Contract Report to address this limit.

The scheduled completion date is the same as the latest presented to Congress (FY 2011), "To Be determined".



- LEGEND**
- WORK COMPLETED AS OF FY 2010
 - WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2011
 - WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2012
 - WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2012
 - LEVEES/FLOODWALLS
 - OVERBANK STORAGE WILDLIFE HABITAT
 - CONTROL STRUCTURE
 - PUMPING STATION MODIFICATIONS

Stage I Non-structural Measures
 Stage II No. Levee Burr to Broadway
 Stage III So. Levee Chase to Broadway
 Stage IV Levee Broadway to Conrail RR
 Stage V Levee Northcote to Kennedy
 Stage VI Levee Kennedy to Cline Ave.
 Stage VII Levee Columbia to Northcote
 Stage VIII Levee State Line to Columbia



LITTLE CALUMET RIVER
 INDIANA
 FLOOD CONTROL PROJECT

CHICAGO DISTRICT
 GREAT LAKES AND
 OHIO RIVER DIVISION

LRD - 33

APPROPRIATION TITLE: Construction, Flood Risk Management

PROJECT: McCook and Thornton Reservoirs, Illinois, Local Protection (Flood Control) (Continuing)

LOCATION: The project area covers 341 square miles of the combined sewer area in Cook County in Chicago and 48 adjacent suburban communities.

DESCRIPTION: The authorized project consists of constructing two reservoirs from stone quarries located in McCook and Thornton, Cook County, Illinois with floodwater storage capacities of 29,000 acre-feet (9.45 billion gallons) and 14,600 acre-feet (4.8 billion gallons), respectively. The Thornton Reservoir project authorization was modified to evaluate inclusion of the storage associated with the National Resource Conservation Service's Thorn Creek Reservoir. The composite reservoir at Thornton, determined feasible in a 2003 Limited Re-evaluation Report, has a combined capacity of 24,200 acre-feet (7.8 billion gallons). Both McCook and Thornton will serve as the termini of the Metropolitan Water Reclamation District of Greater Chicago's Tunnel and Reservoir Plan (TARP) Phase I tunnels. TARP was developed by Federal, State, regional and local governments as a regional plan for reducing flood damages and improving water quality in area waterways. The two reservoirs will capture and store combined sewer flows from the tunnel systems for later treatment after the storm event. Currently, when the tunnels reach their capacity, the combined flow of storm water and raw sewage backs up through the sewer system into basements of homes and businesses and on to the roadways and is discharged directly into area waterways. When storm events are severe, the navigation locks on the Chicago River must be opened to release the combined sewer flow into Lake Michigan - the source of drinking water for millions. Reservoir features include pumps, a grout curtain and overburden cutoff wall, main and distribution tunnels, gates and valves, hydraulic structures, wall stabilization, and aeration and wash-down systems.

AUTHORIZATION: Water Resources Development Act of 1988, (P. L. 100-676, Section 3, 102 Stat. 4013); Water Resources Development Act of 1999, (P. L. 106-53, Section 501, 113 Stat. 334); Water Resources Development Act of 2007, (P. L. 110-114, Section 5157, 121 Stat. 1257).

REMAINING BENEFIT-REMAINING COST RATIO: 5.5 to 1 at 7 percent (McCook and Thornton combined).
7.8 to 1 at 7 percent (McCook only)

TOTAL BENEFIT-COST RATIO: 2.3 to 1 at 7 percent (McCook and Thornton combined)
3.2 to 1 at 7 percent (McCook only)

INITIAL BENEFIT-COST RATIO: 2.0 to 1 at 8 percent

BASIS OF BENEFIT-COST RATIO: McCook Reservoir benefits are based on the latest available evaluation in the Final Special Reevaluation Report dated February 1999 at October 1997 price levels. Thornton Reservoir benefits are based on the economic evaluation completed for the Limited Reevaluation Report dated July 2003 at October 2001 price levels.

Division: Great Lakes and Ohio River

District: Chicago

McCook and Thornton Reservoirs, IL

SUMMARIZED FINANCIAL DATA		STATUS (1 Jan 2011)	PHYSICAL PERCENT COMPLETE	COMPLETION SCHEDULE
Estimated Federal Cost	\$ 651,000,000	McCook Reservoir	44	To Be determined
Estimated Non-Federal Cost	217,000,000	Thornton Reservoir	0	To Be determined
Cash Contributions	107,656,000	Entire Project	30	To Be determined
Other Costs	109,344,000			
Total Estimated Project Cost	\$ 868,000,000			

		ACCUM. PCT. OF EST. FED. COST	PHYSICAL DATA	
Allocations to 30 September 2008	206,624,400			
Allocations for FY 2009	28,709,000			
Allocation for FY 2010	19,376,000		McCook Reservoir	
President's Budget for FY 2011	40,000,000		Storage Capacity	29,200 acre-feet
Recovery Act Allocations as of 31 Dec 2010	0			
Allocations for FY 2011	40,000,000		Thornton Reservoir	
Allocations through FY 2011	294,709,400	45	Storage Capacity	24,200 acre-feet
Budget for FY 2012	12,000,000	47		
Programmed Balance to Complete After FY 2012	344,290,600			
Unprogrammed Balance to Complete after FY 2012	0			

JUSTIFICATION: The McCook and Thornton Reservoirs Project covers 341 square miles of the combined sewer area in Chicago and suburban communities. Within this region, nearly 1,200,000 structures suffer flooding attributable to combined storm sewer outfall submergence caused by the inadequate capacity of area waterways. The McCook Reservoir will provide additional storage capacity beyond the billion gallon capacity of the connecting tunnel system and will provide flood damage reduction benefits to Chicago and 37 suburban communities where 146,000 homes and businesses flood annually. The Thornton Reservoir will provide additional storage capacity beyond that of its half billion gallon capacity of the connecting tunnel system and will provide flood damage reduction to Chicago and 13 suburban communities where nearly 200,000 homes and businesses flood annually. The project will also improve water quality in area waterways, reduce untreated sewage backflow into Lake Michigan and reduce beach closures. The project benefits over 3 million people. The sponsor, the Metropolitan Water Reclamation District of Greater Chicago (MWRDGC), has been under pressure from the USEPA to have at least Stage 1 of the McCook Reservoir constructed by CY 2015 when their current NPDES (National Pollution Discharge Elimination System of the Clean Water Act) permit expires. Department of Justice requested MWRDGC to sign an Administrative Order with USEPA on a timeline to get McCook Reservoir constructed and operational. Delays in completion of the project, due to inadequate pace of past Federal funding, could force Department of Justice to order enforced settlement to comply with

Division: Great Lakes and Ohio River

District: Chicago

McCook and Thornton Reservoirs, IL

JUSTIFICATION (continued):

the Clean Water Act. Risks to human health are high due to continued contaminated floodwaters. One of the intended purposes of this project is to prevent sewage backflow to Lake Michigan which impacts the primary drinking water source for the Chicago metropolitan area and damages the aquatic ecosystem, including fish tainting, contaminant uptake by aquatic organisms and degradation of spawning areas. The elimination of backflows of raw sewage to Lake Michigan is a priority issue of the Great Lakes Governors and Mayors. During the later part of July 2010, areas of Cook County were hit by floods that once again caused substantial damage and presented major health and safety issues for residents, in this case of the communities of Stone Park, Melrose Park, Maywood, Hillside, Bellwood, Berwyn, Cicero, Westchester, Broadview, Forest Park and Maine Township. In this very large metropolitan area, the risks associated with overland flooding, basement backup flooding and combined sewer overflow pose a significant threat to resident's health and life safety. Basements flooded with combined sewer backup pose not only a safety threat (from electrocution), but also a health threat due to the presence of water-borne illnesses in the untreated waters. Further, combined sewer overflows to area waterways impact public health and safety through the exposure of millions of residents to waterborne illnesses. As a result of the July 2010 flooding, there have been news reports of 26 downed wires, 15 damaged poles, and 128 damaged traffic lights. (Chicago-Sun Times, July 26th). Residents of town of Cicero report that damages could be as much as 38 million. (ABC7, July 27th). Cook County Emergency Management Agency expected damages to be in excess of \$17 million, the threshold for qualification for FEMA aid. (Chicago Tribune July 27th).

Average annual benefits for McCook and Thornton Reservoirs are as follows:

Annual Benefits	Amount
Flood Damage Prevention	\$ 89,848,000
Water Quality	15,560,000
Water Supply	10,110,000
Recreation	1,088,000
Total	\$ 116,606,000

FISCAL YEAR 2011: The requested amount will be applied as follows:

Complete construction of Main Tunnel Gates – McCook reservoir	\$ 8,000,000
Complete construction of Main Tunnel Shaft – McCook Reservoir	6,000,000
Continue construction of Stage II Grout – McCook Reservoir	8,000,000
Initiate construction of Main Tunnel - McCook Reservoir	15,000,000
Engineering and Design – McCook Reservoir	1,000,000
Construction Management-McCook Reservoir	2,000,000
Total	\$ 40,000,000

FISCAL YEAR 2012: The requested amount will be applied as follows:

Complete construction of Stage II Grout – McCook Reservoir	\$	5,000,000
Continue construction of Main Tunnel – McCook reservoir		4,000,000
Engineering and Design – McCook Reservoir		500,000
Construction Management-McCook Reservoir		2,500,000
Total	\$	12,000,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payment During Construction and Reimbursements	Maintenance, Repair, Rehabilitation, and Replacement Costs
McCook Reservoir:		
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas.	\$ 5,890,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	39,381,000	
Pay 17 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 25 percent and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	91,729,000	\$4,300,000
Total McCook Reservoir	\$137,000,000	4,300,000
Thornton Reservoir:		
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas.	\$26,617,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary, for the construction of the project, and less credits allowed for prior work per Section 501 of Water Resources Development Act of 1999.	37,456,000	

Division: Great Lakes and Ohio River

District: Chicago

McCook and Thornton Reservoirs, IL

NON-FEDERAL COST: (Continued)

Requirements of Local Cooperation	Payment During Construction and Reimbursements	Maintenance, Repair, Rehabilitation, and Replacement Costs
Pay approximately 5 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 25 percent and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	15,927,000	2,800,000
Total Thornton Reservoir	\$ 80,000,000	\$2,800,000
Total Non-Federal	\$217,000,000	\$7,100,000

STATUS OF LOCAL COOPERATION: The Metropolitan Water Reclamation District of Greater Chicago (MWRDGC) is the local sponsor for the project. The Project Cooperation Agreement for McCook Reservoir was executed on 10 May 1999, and amended on 10 July 2003. Project Cooperation Agreement for Thornton Reservoir was executed on 18 September 2003 and amended on 30 July 2009. The non-Federal sponsor is expected to make all required payments concurrently with project construction. The current non-Federal cost estimate for the McCook Reservoir is \$137,000,000, which includes a cash contribution of \$91,729,000 and is an increase of \$7,950,000 from the non-Federal cost estimate of \$129,050,000 noted in the Project Cooperation Agreement, which included a cash contribution of \$99,978,000. The current non-Federal cost estimate for the Thornton Reservoir is \$80,000,000, which includes a cash contribution of \$15,927,000 and is an increase of \$7,000,000 from the non-Federal cost estimate of \$73,000,000 noted in the Project Cooperation Agreement, which included a cash contribution of \$14,600,000.

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal cost estimate of \$651,000,000 is an increase of \$37,000,000 from the latest estimate (\$614,000,000) presented to Congress (FY 2011). This change is due to price levels and inflation adjustments and post contract award adjustments.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: Public and Agency review of final Environmental Impact Statement and the Special Reevaluation Report (EIS / SRR) for the McCook Reservoir project was completed in December 1998 and the Record of Decision (ROD) was signed on May 5, 1999. The Thornton Reservoir Environmental Assessment and Finding of No Significant Impact were signed in June 2001 and December 2001 respectively. The Thornton Reservoir Limited Reevaluation Report was completed in July 2003.

OTHER INFORMATION: Funds to initiate PED were appropriated in FY 1988. Funds to initiate construction were appropriated in FY 1994. WRDA 2007, Section 5157 authorized reimbursement to the sponsor for Thornton Reservoir. The scheduled completion date is the same as the latest presented to Congress (FY 2011), "To Be Determined".

Division: Great Lakes and Ohio River

District: Chicago

McCook and Thornton Reservoirs, IL

SEPARABLE ELEMENT: McCook Reservoir, Illinois

SUMMARIZED FINANCIAL DATA

Estimated Federal Cost		\$ 413,000,000
Non-Federal Cost		137,000,000
Cash Contributions	91,729,000	
Other Costs	45,271,000	
Total Estimated Project Cost		\$ 550,000,000

REMAINING BENEFIT-REMAINING COST RATIO: 7.8 to 1 at 7 percent

TOTAL BENEFIT-COST RATIO: 3.2 to 1 at 7 percent

SEPARABLE ELEMENT: Thornton Reservoir, Illinois


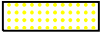
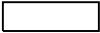



SUMMARIZED FINANCIAL DATA

Estimated Federal Cost		\$238,000,000
Non-Federal Cost		80,000,000
Cash Contributions	15,927,000	
Other Costs	64,073,000	
Total Estimated Project Cost		\$318,000,000





REMAINING BENEFIT-REMAINING COST RATIO: 3.1 to 1 at 7 percent

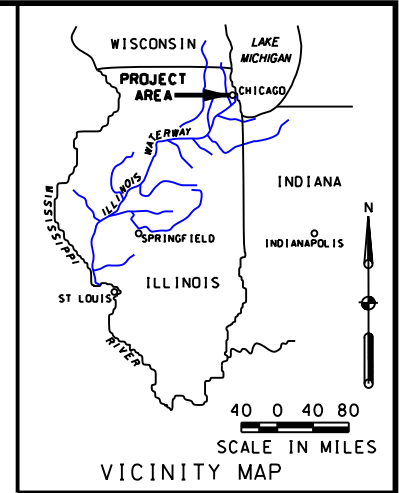
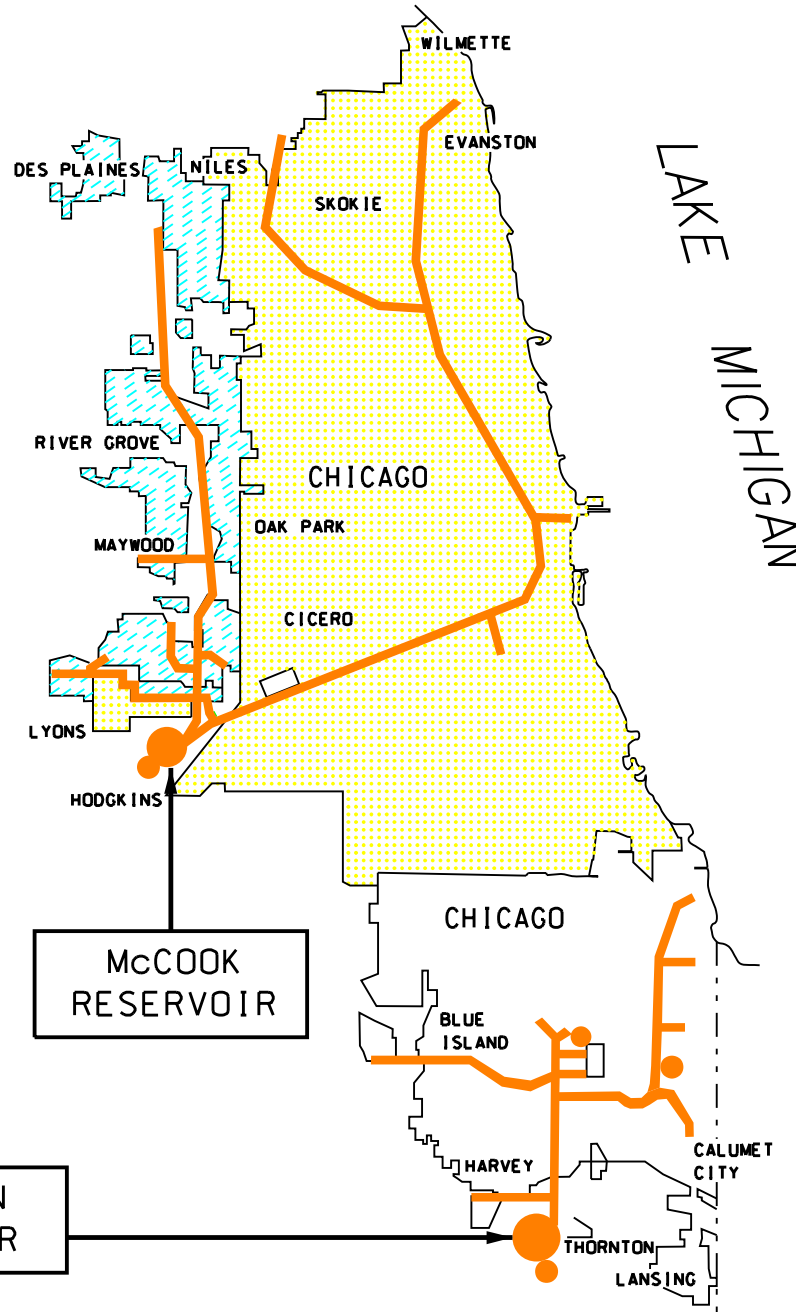
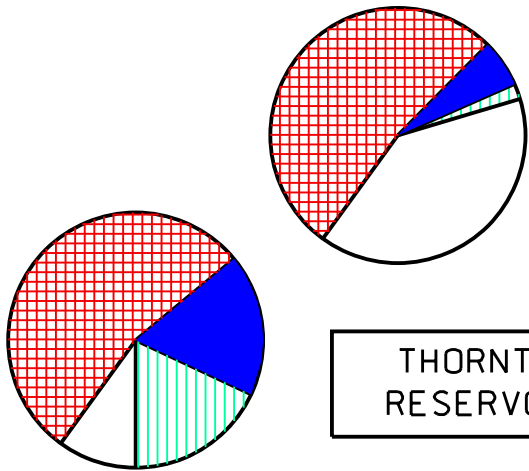
TOTAL BENEFIT-COST RATIO: 1.2 to 1 at 7 percent

SYMBOL LEGEND

-  DES PLAINES SYSTEM
-  MAINSTREAM SYSTEM
-  CALUMET SYSTEM
-  COMPLETED TUNNELS
-  STORAGE RESERVOIR
-  PUMPING STATIONS

LEGEND

-  WORK COMPLETED AS OF 30 SEPTEMBER 2010
-  WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2011
-  WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2012
-  WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2012



CHICAGOLAND UNDERFLOW PLAN
ILLINOIS
McCOOK & THORNTON RESERVOIRS

CHICAGO DISTRICT
GREAT LAKES AND
OHIO RIVER DIVISION

APPROPRIATION TITLE: Construction, Flood Risk Managemnet

PROJECT: Presque Isle Peninsula, Pennsylvania (Permanent) (Continuing)

LOCATION: Presque Isle Peninsula is located in the city of Erie, Erie County, PA, on the south shore of Lake Erie 78 miles southwest of Buffalo, NY and about 102 miles northeast of Cleveland, OH.

DESCRIPTION: The initial construction at Presque Isle State Park consisted of a system of 55 rubblemound breakwaters located offshore along the lakeward length of Presque Isle Peninsula and placement of approximately 560,000 tons of sand. Each breakwater is 150 feet long with a 350 foot gap between structures. The initial construction was completed in November 1992, but in order to maintain sand quantities, annual nourishment is required for 50 years following the initial project construction. FY12 annual sand nourishment will provide the annual nourishment for year 20 of 50. Funds to initiate preconstruction engineering and design were appropriated in FY 1988 and funds to initiate construction were appropriated in FY 1989.

AUTHORIZATION: Section 501 of Water Resources Development Act of 1986 (P.L. 99-662)

REMAINING BENEFIT-REMAINING COST RATIO: 12.33 to 1 at 7%

TOTAL BENEFIT-COST RATIO: 3.2 to 1 at 4.625%

INITIAL BENEFIT-COST RATIO: 2.53 to 1 at 8-7/8 percent (FY1986)

BASIS OF BENEFIT-COST RATIO: Benefits are based on a limited re-evaluation report dated April 1986.

Division: Great Lakes and Ohio River

District: Buffalo

Presque Isle Peninsula, PA

SUMMARIZED FINANCIAL DATA:

Estimated Federal Cost		\$ 56,000,000
Programmed Construction	56,000,000	
Unprogrammed Construction	0	
Estimated Non-Federal Cost	56,000,000	
Programmed Construction	56,000,000	
Cash Contributions	14,000,000	
Other Costs	0	
Facilities indicating mitigation		
Unprogrammed Construction		
Cash Contributions	42,000,000	
Other Costs	0	
Total Estimated Programmed Construction Cost Non-Federal		56,000,000
Total Estimated Unprogrammed Construction Cost		0
Total Estimated Project Cost		\$ 112,000,000

STATUS (1 JAN 2011)	PHYSICAL PCT COMPL	COMPLETION SCHEDULE
------------------------	--------------------------	------------------------

Initial Construction	100	Nov 1992
Periodic Nourishment	38	
Entire Project	38	TBD

Initial Construction:
The initial construction at Presque Isle State Park consisted of a system of 55 rubblemound breakwaters located offshore along the lakeward length of Presque Isle Peninsula and placement of approximately 560,000 tons of beach sand fill.

Division: Great Lakes and Ohio River

District: Buffalo

Presque Isle Peninsula, PA

SUMMARIZED FINANCIAL DATA: (Continued)

Allocations to 30 September 2008	\$7,376,036
Allocation for FY 2009	933,000
Allocation for FY 2010	945,000
President's Budget for FY 2011	1,000,000
Recovery Act Allocations as of 31 DEC 2010	0
Allocation for FY 2011	1,000,000
Allocations through FY 2011	10,254,036
Budget for FY 2012	1,500,000
Programmed Balance to Complete after FY 2012	44,245,964
Unprogrammed Balance to Complete after FY 2010	0

JUSTIFICATION: When the need for annual sand nourishment is not met, erosion of the shoreline occurs. Continued erosion will potentially lead to breaching of the Peninsula, increasing the wave climate in Presque Isle Bay, and impacting the navigation users of Erie Harbor. Damage to habitat critical to the breeding of the endangered Piping Plover and other species has already occurred. Damage to park infrastructure will occur next, leading to loss of roadways and a handicapped access area.

The annual benefits identified in the Design Memorandum updated to current price levels are as follows:

Annual Benefits	Amount
Decreased Maintenance Cost	\$167,000
Structural Damage Prevented	7,000
Land Loss Prevention	21,000
Decreased Dredging Costs	452,900
Decreased Nourishment Cost	3,959,300
Total	\$ 4,607,200

FISCAL YEAR 2011: The requested amount will be applied as follows:

Place sand (Annual Nourishment)	\$850,000
Planning, Engineering, Design and Monitoring	150,000
Total	\$1,000,000

Division: Great Lakes and Ohio River

District: Buffalo

Presque Isle Peninsula, PA

FISCAL YEAR 2012: The requested amount will be applied as follows:

Place sand (Annual Nourishment)	\$1,350,000
Planning, Engineering, Design and Monitoring	150,000
Total	\$1,500,000

NON-FEDERAL COST: In accordance with the cost-sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below.

The non-Federal sponsor has agreed to make all required payments concurrently with project construction and 50% of its share of periodic nourishment costs within the life of the project.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Pay one-half of the separable costs allocated to recreation, including periodic nourishment, and bear all costs of operation, maintenance, repair, rehabilitation, and replacement of breakwater features.	\$ 56,000,000	\$ 106,400
Total Non-Federal Costs	\$ 56,000,000	\$ 106,400

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction and, for general navigation, reimburse its share of construction costs within a period of 30 years following completion of construction.

STATUS OF LOCAL COOPERATION: Pennsylvania Department of Conservation and Natural Resources (DCNR) serves as the non-Federal sponsor. A Local Cooperation Agreement (LCA) is in place with the non-Federal sponsor to match 50% of any Federal funds received for the project.

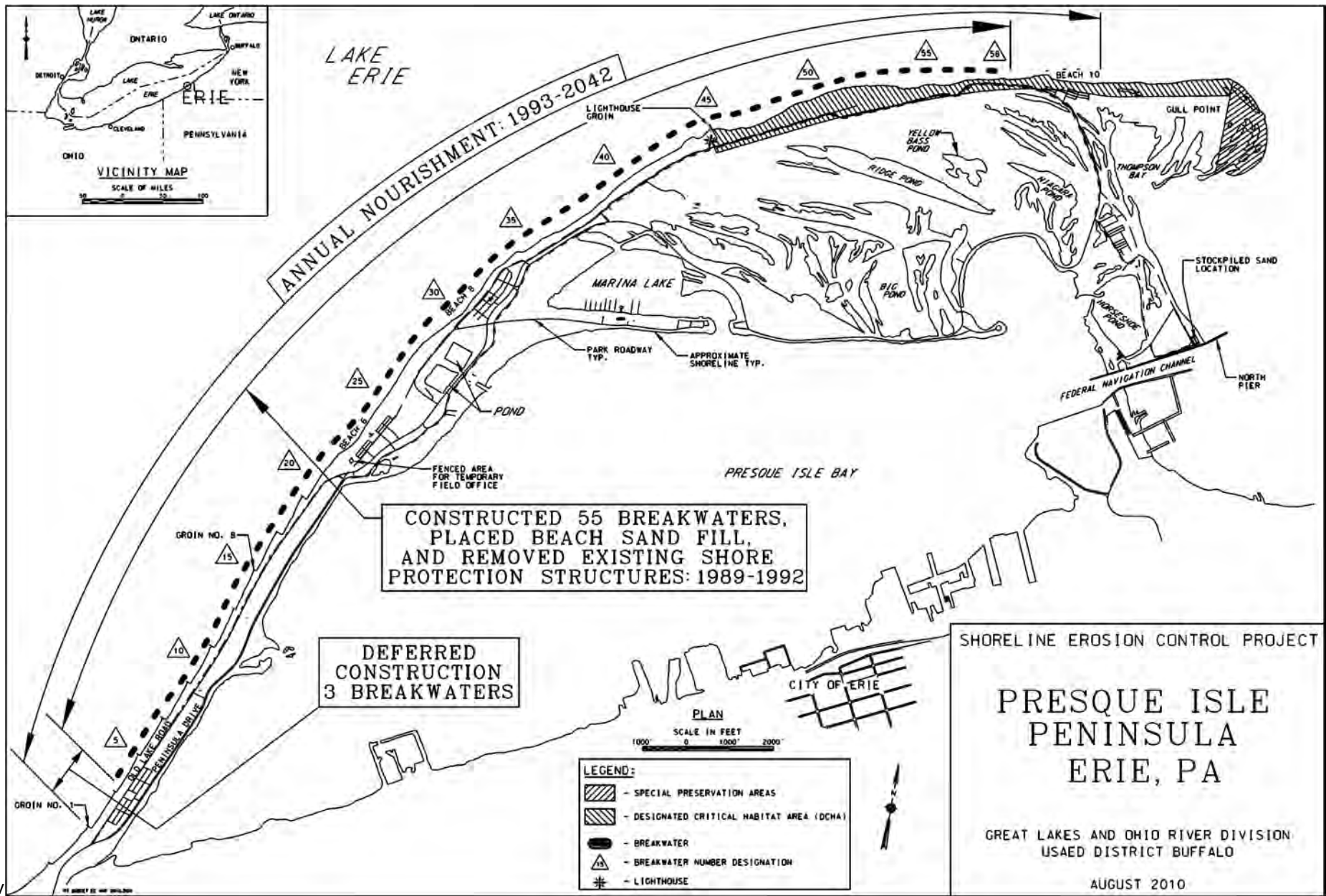
COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate is the same as the last cost estimate at \$112,000,000.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Final Environmental Impact Statement was filed with USEPA on 13 March 1981. The provisions of Section 404 of the Clean Water Act were met by the Public Notice issued on 9 October 1979, a Section 404(b)(1) Evaluation dated 21 December 1979, and a Section 401 Water Quality Certificate issued by the Commonwealth of Pennsylvania dated 8 August 1988. The Record of Decision which completed the NEPA process was signed by the Director of Civil Works on 2 November 1988.

Division: Great Lakes and Ohio River

District: Buffalo

Presque Isle Peninsula, PA



APPROPRIATION TITLE: Construction, Flood Risk Management

PROJECT: Wolf Creek Dam Safety Major Rehabilitation, Cumberland River, Kentucky (Continuing)

LOCATION: Wolf Creek Dam is on the Cumberland River at mile 460.9 in south central Kentucky near Jamestown, Kentucky.

DESCRIPTION: Wolf Creek Dam impounds Lake Cumberland, which is the Corps largest storage capacity reservoir east of the Mississippi River. Seepage problems currently threaten the stability of the dam. The Major Rehabilitation Evaluation Report dated July 11, 2005 was prepared in accordance with EP 1130-2-500 and evaluates several alternatives to improve the long term reliability of the dam by using a reliability analysis based on an analytical model built upon historical instrumentation data. From this analysis, the recommended alternative, which is also the National Economic Development alternative, is a new concrete diaphragm wall constructed using the secant pile method and supplemented with grouting. This new wall will start immediately upstream of the right most concrete monoliths and run the length of the embankment into the right abutment. The Major Rehabilitation Evaluation Report was approved July 25, 2005.

AUTHORIZATION: The Wolf Creek project was authorized by the Flood Control Act approved June 28, 1938 (Public Law No. 761, 75th Congress, 3rd session).

REMAINING BENEFIT-REMAINING COST RATIO: 6.4 at 7.0 percent

TOTAL BENEFIT-COST RATIO: 6.4 at 7.0 percent

INITIAL BENEFIT-COST RATIO: 7.1 at 5 3/8 percent (FY 2005)

BASIS OF BENEFIT COST RATIO: Benefits are from the latest available evaluation approved in July 2005 at FY05 price levels.

SUMMARIZED FINANCIAL DATA

		STATUS (1 Jan 2011)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	\$584,000,000			
Programmed Construction	584,000,000	Entire Project	45	TBD
Total Estimated Project Cost	\$584,000,000			

PHYSICAL DATA

Concrete Cutoff Wall and Foundation Grouting 4170' long x 350' max. depth

Division: Great Lakes and Ohio River

District:Nashville

Wolf Creek Dam Safety Major Rehab, KY

SUMMARIZED FINANCIAL DATA (Continued)

ACCUM
PCT OF EST
FED COST

Allocations to 30 September 2008	\$106,134,000	1/
Allocation for FY 2009	69,547,000	2/
Allocation for FY 2010	116,206,000	
Recovery Act Allocations as of 31 December 2010	18,000,000	
President's Budget for FY 2011	134,000,000	
Allocation for FY 2011	134,000,000	
Allocations through FY 2011	443,887,000	76
Budget for FY 2012	132,000,000	99
Programmed Balance to Complete after FY 2012	8,113,000	
Unprogrammed Balance to Complete after FY 2012	\$ 0	

1/ \$8,900,000 funded from Dam Safety and Seepage/Stability Correction Program.

2/ Reflects \$15M reprogrammed from Center Hill Dam Safety Major Rehabilitation project.

JUSTIFICATION: Worsening, chronic seepage problems originating from 1940's foundation construction methods currently threaten the stability of Wolf Creek Dam. Review of foundation construction data indicate the problems are due to the karst geology of the site characterized by an extensive interconnected network of solution channels in the limestone foundation. If the 60-year old dam should fail, loss of life is expected to exceed one-hundred lives. Inundation damages in the Nashville area alone are expected to exceed two billion dollars.

FISCAL YEAR 2011: The allocated amount will be applied as follows:

Continue Cutoff Wall Contract	\$125,900,000
Planning, Engineering, and Design	3,800,000
Construction Management	4,300,000
Total	\$134,000,000

FISCAL YEAR 2012: The requested amount will be applied as follows:

Continue Cutoff Wall Contract	\$ 124,300,000
Planning, Engineering, and Design	3,300,000
Construction Management	4,400,000
Total	\$132,000,000

Division: Great Lakes and Ohio River

District:Nashville

Wolf Creek Dam Safety Major Rehab, KY

STATUS OF LOCAL COOPERATION: The project is designed as a reliability-based improvement. There are no anticipated efficiency benefits. The project will require full initial federal funding. There are two classes of users that may be required to share in the final cost of this project, the water supply and hydropower customers. There are ten water supply users on Lake Cumberland, mostly small cities. There are no current water supply agreements. Any future water supply agreements will include their share of these project costs. The hydropower from Wolf Creek is marketed through the Southeastern Power Administration (SEPA). SEPA will repay their share of the costs by periodic direct payment to the U.S. Treasury.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$584,000,000 is the same as the last estimate presented to Congress (FY 2011).

STATUS OF ENVIRONMENTAL ASSESSMENT: An Environmental Assessment and signed Finding of No Significant Impact (FONSI) were included in the Major Rehabilitation Report approved July 14, 2005 by the Great Lakes and Ohio River Division and July 25, 2005 by HQUSACE. Wolf Creek Dam / Lake Cumberland Emergency Measures in Response to Seepage Final Environmental Impact Statement was circulated to the public in December 2007. Final comments and responses were resolved with US Fish and Wildlife Service and a Record of Decision was signed November 5, 2010.

OTHER INFORMATION: None

Wolf Creek Seepage Major Rehabilitation



Great Lakes &
Ohio River Division
Nashville District

4 – Gallery Grouting

3 – Barrier Wall

2 – Foundation Grouting

1 – Halcomb's Landing

Vicinity Map

Wolf Creek Dam



Legend – Status of Work by Major Construction Feature

- 1,2 – Work completed prior to FY2011
- 3,4 – Work continuing with funds received in FY2011
- 3 – Work proposed for funds requested in FY2012
- 3 – Work proposed after FY2012

NAVIGATION

INVESTIGATIONS

APPROPRIATIONS TITLE: Investigations, Navigation, Fiscal Year 2012

Division: Great Lakes and Ohio River

Study		Total Estimated Federal Cost \$	Allocation Prior to FY 2009 \$	Allocation FY 2009 \$	Allocation FY 2010 \$	Allocation FY 2011 \$	Tentative Allocation FY 2012 \$	Additional to Complete After FY 2012 \$
Upper Ohio Navigation Study, PA	Annual Allocations	15,215,821	7,094,483	4,015,000	1,405,000	749,000	1,363,000	0
	ARRA Allocations			514,338	75,000			
	Total Allocations	15,215,821	7,094,483	4,529,338	1,480,000	749,000	1,363,000	0

Pittsburgh District

The Upper Ohio Navigation Study, PA, Emsworth, Dashields and Montgomery Locks and Dams are the uppermost lock and dam structures on the Ohio River and are located at river miles 6.2, 13.3 and 31.7, respectively below the "Point" in Pittsburgh, PA. All three have dual lock chambers, 110'x600' and 56'x360', which are the smallest capacity chambers of the Ohio River navigation system. All three facilities are 70+ years of age and exhibit significant signs of structural and operational degradation, increasing the risk of failure which would halt navigation for up to one year. Navigation interests in the Pittsburgh area recognize the possibility that structural and/or operational failures at the Emsworth, Dashields and Montgomery Locks may soon reach unacceptable levels of risk. They support the efficient continuation of a feasibility level study to determine the most cost effective means to achieve safe and reliable navigation at these three facilities. The recently completed Ohio River Main Stem Systems Study, System Investment Plan (SIP) evaluated the need for reinvestments in the locks on the Ohio River, and Emsworth, Dashields, and Montgomery were identified as the highest priority. The SIP and the associated Environmental Cumulative Effects Assessment are being appended to the Upper Ohio Navigation, PA Feasibility Study.

FY 2011 President's Budget of \$749,000 will be used to finalize a draft Feasibility Report/NEPA documentation; to perform Agency technical review, independent external peer review, public review and policy compliance review; and, to initiate finalization of the Feasibility Report/NEPA documentation based on reviews.

FY 2012 budgeted funds will be used to finalize the Upper Ohio Study Feasibility Report, based on reviews and for submittal of the Chief of Engineers Report to Congress with the recommended plan for the best long-term reinvestment strategy for these three deteriorating facilities.

The Upper Ohio Navigation Study, PA, is a site-specific feasibility study recommendation of the Ohio River Mainstem System Study, System Investment Plan. Subject to efficient funding being received in FY 2011 and FY 2012, the study is expected to be completed in FY 2012 with submittal of a Chief's Report in February 2012. Pre-construction, Engineering, and Design would start in FY 2013.

Study Authority: Resolution adopted by the Committee on Public Works for the U.S. Senate dated 16 May 1955 and 20 March 1982, and by the U.S. House of Representatives Committee on Public Works and Transportation dated 11 March 1982.

CONSTRUCTION

APPROPRIATION TITLE: Construction – Locks and Dams (Replacement)(Navigation)

PROJECT: Emsworth Locks and Dams, Ohio River, Pennsylvania (Static Instability Correction) (Continuing)

LOCATION: Emsworth Locks and Dams are located on the Ohio River immediately downstream of the City of Pittsburgh in Allegheny County, Pennsylvania. The project includes two dams, one on either side of Neville Island. The main channel dam and locks are located at river mile 6.2 and the back channel dam is located at river mile 6.4. The project creates the navigation pool for the City of Pittsburgh. The pool includes the uppermost 6.2 miles of the Ohio River, the lower 11.2 miles of the Monongahela River, and the lower 6.7 miles of the Allegheny River.

DESCRIPTION: The structural components of the Emsworth Locks and Dams are the oldest of any project on the Ohio River, dating back to 1919-1922 when Emsworth was constructed. The main channel dam consists of eight 100 foot vertical lift gates and a 34 foot fixed crest weir. The back channel dam consists of five 100 foot vertical lift gates and a tainter-style gate commonly referred to as a "Sidney Gate". The proposed work addresses deficiencies with the dam gates (replacement), dam operating equipment and gate hoisting machinery, electrical power, and the scour protection downstream of the dams. The project also includes work to the dam service bridge and localized areas of dam concrete deterioration. Potential work at the Emsworth Locks is being evaluated separately and is not part of this project.

AUTHORIZATION: Rivers and Harbors Act, dated July 1918

REMAINING BENEFIT-REMAINING COST RATIO: 1.9 to 1 at 7 percent

TOTAL BENEFIT-COST RATIO: 1.1 to 1 at 7 percent

INITIAL BENEFIT-COST RATIO: 2.8 to 1 at 5 5/8 percent (FY 2004)

BASIS OF BENEFIT-COST RATIO: "EMSWORTH LOCKS AND DAMS, OHIO RIVER, MAJOR REHABILITATION EVALUATION REPORT" dated March 2001 is the basis for the initial benefit-cost ratio. The price level was March 2001. The initial rate is the rate for FY04 when CG funds were first expended.

Division: Great Lakes & Ohio River

District: Pittsburgh

Emsworth Locks and Dams, Ohio River, PA

SUMMARIZED FINANCIAL DATA	ACCM PCT OF EST FED COST	STATUS (1 JAN 2011)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
		Entire project	87	2014
Estimated Federal Cost	\$ 160,000,000			
Programmed Construction	160,000,000			
Unprogrammed Construction	0			
Estimated Non-Federal Cost	0			
Programmed Construction	0			
Cash Contributions	0			
Other Costs	0			
Total Estimated Programmed Construction Cost	160,000,000			
Total Estimated Unprogrammed Construction Cost	0			
Total Estimated Project Cost	\$ 160,000,000			

PHYSICAL DATA
13 Vertical Lift Gates
Emergency Bulkheads and Hoists
Vertical Lift Gate Machinery
Erosion Protection
Integral concrete repairs
Rehabilitation of Service Bridges

	GENERAL APPNS	INLAND WATERWAYS TRUST FUNDS	ACCUM PCT OF EST FED COST
Allocations thru 30 September 2010	\$64,633,500	\$41,368,500	66.3 /1
Recovery Act Allocations as of 31 Dec 2010	33,287,000	0	87.1
President's Budget for FY 2011	5,350,000	6,150,000	
Allocation for FY 2011	5,350,000	6,150,000 /2	
Allocations through FY 2011	103,270,500	47,518,500	94.2
Budget for FY 2012		3,000,000	96.1
Programmed Balance to Complete after FY 2012	0	9,211,000	
Unprogrammed Balance to Complete after FY 2012	\$ 0	\$ 0	

/1 In FY 2005, a total of \$3,500,000 of CG "wedge" funds was provided through the Dam Safety and Seepage / Stability Correction program to initiate the Emsworth Locks and Dams Major Rehabilitation Project, PA. FY 2009 Cost Share with Inland Water Trust Fund was not in effect from 1 Oct 08 thru 27 Oct 09. Obligations during this period were \$25,560,248.

/2 Anticipated allocation subject to availability of IWTF funds.

JUSTIFICATION: The dams are presently in an exigent situation and categorized as Dam Safety Action Class I – urgent and compelling. There are 10-foot deep scour holes and 65 percent of the erosion protection is missing downstream of the dams. Failure of any of the original lift gates would likely cause a portion of the stilling basin to fail and possibly undermine the dam. There is presently a 74 percent likelihood of failure of any of the dam gates. The systems are proven to be unreliable due to multiple failures within the past four years. Over 239 million tons of commodities are transported by barge annually on the Ohio River. The

annual tonnage through Emsworth is approximately 24 million tons with the principle commodity being coal destined for electric generating plants and the nation's largest coke plant. The total benefits of traffic through Emsworth reflect a yearly savings of \$300,000,000 over other modes of transportation. Gate failure during low flow conditions could lead to the loss of the Pittsburgh Pool, halting navigation. Gate failure during high flow conditions may cause upstream flooding or stilling basin and dam failure, halting navigation. If the Emsworth pool is lost, two major facilities dependent on river transportation are impacted – the US Steel Clairton Works, the largest coke plant in the US and the Bailey / Enlow Fork Complex owned by Consol Energy, the largest underground coal mine in the US. Disruption in coal supply and transportation would also impact steel plants and coal-fired electric power plants. The impact of the loss of Emsworth pool on the local economy and other communities would be substantial. Approximately 11,700 jobs are directly at risk due to loss of navigation and disruption to services and material. The loss in wages alone would range from \$1,500,000 to \$2,200,000 per day. The project is cost-effective and in accordance with current Administration policy for navigation.

FISCAL YEAR 2011:

Description	Amount
EDC and S&A for the main channel dam rehab, back channel service bridge, and main channel service bridges design.	\$ 1,500,000
Main channel service bridge contract.	10,000,000
Total	\$11,500,000

FISCAL YEAR 2012:

Description	Amount
EDC and S&A for the main channel dam rehab and Main channel service bridge contract	\$3,000,000
	0
Total	\$3,000,000

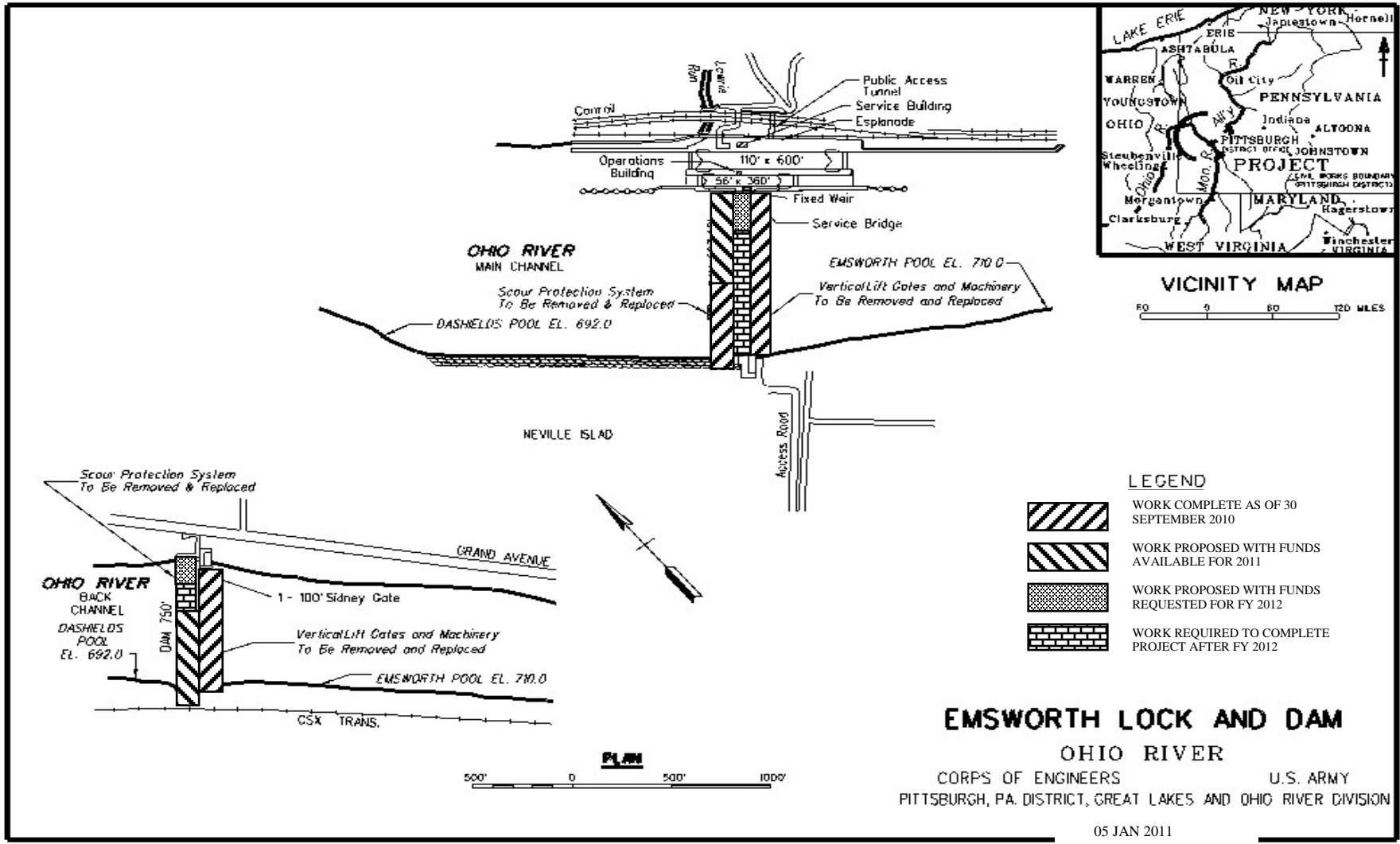
NON-FEDERAL COST: N/A

STATUS OF LOCAL COOPERATION: None Required

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$160,000,000 is the same as last presented to Congress for 2010.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT COMPLIANCE: An Environmental Assessment was completed during the Rehabilitation Evaluation study, and the Finding of No Significant Impacts (FONSI) was signed on 12 July 2001.

OTHER INFORMATION: The scheduled completion date is 2014.



Division: Great Lakes & Ohio River

District: Pittsburgh

Emsworth Locks and Dams, Ohio River, PA

14 FEBRUARY 2011

LRD - 57

APPROPRIATION TITLE: Construction – Locks and Dams (Navigation)

PROJECT: Locks and Dams 2, 3, and 4, Monongahela River, Pennsylvania (Continuing)

LOCATION: These three Navigation facilities are located on the lower portion of the Monongahela River near the city of Pittsburgh, Pennsylvania. They are part of the Allegheny-Monongahela system and are located in Allegheny, Washington, and Westmoreland Counties. Measured from the Point in Pittsburgh, Locks and Dam 2 (Braddock) is at river mile 11.2, Locks and Dam 3 (Elizabeth) is at river mile 23.8, and Locks and Dam 4 (Charleroi) is at river mile 41.5. Six other navigation facilities situated upstream of Locks and Dam 4 provide a navigable waterway extending to Fairmont, West Virginia. At the Point in Pittsburgh, the Monongahela and Allegheny Rivers join to form the Ohio River.

DESCRIPTION: The authorized projects consist of a new gated dam and a rehabilitated auxiliary chamber floodway bulkhead structure at Braddock; new twin 84 by 720 foot locks and below-dam scour protection at Charleroi; raising pool 2 by a nominal five feet and lowering pool 3 by a nominal 3.2 feet; removal of Locks and Dam 3; channel dredging; relocations; and bank stabilization. Construction began in FY 1995 with the upgrade of the Locks 2 auxiliary chamber floodway bulkhead and relocations. Replacement of the dam at Braddock began in 1999 and is complete. Only one operational lock remains at Charleroi L/D 4. Efforts are now focused on the new twin locks at Charleroi and remaining pool 2 relocations. All work is programmed. Existing Locks and Dams 2, 3, and 4 are the last of the old and undersized locks on the Monongahela River system and have components which have been in service for nearly 100 years. The existing Braddock facility consists of a main lock with chamber dimensions of 110 by 720 feet, an auxiliary lock with chamber dimensions of 56 by 360 feet, and a 748-foot fixed-crest dam. The existing Elizabeth facility consists of locks with chamber dimensions of 56 by 720 feet and 56 by 360 feet and a 670-foot fixed-crest dam. The existing Charleroi facility consists of locks with chamber dimensions of 56 by 720 feet and 56 by 360 feet and a gated dam consisting of five 84-foot gated sections and a 43-foot fixed weir section.

AUTHORIZATION: Section 101, Water Resources Development Act of 1992

REMAINING BENEFIT-REMAINING COST RATIO: 4.5 to 1 at 7 percent

TOTAL BENEFIT-COST RATIO: 1.8 to 1 at 7 percent

INITIAL BENEFIT-COST RATIO: 6.7 to 1 at 7 3/4 percent (FY 1995)

BASIS OF BENEFIT-COST RATIO: The initial Benefit-Cost ratio is based upon the benefits and costs listed in the Feasibility Report dated December 1991. The initial rate is the FY 1995 rate when CG funds were first expended.

Division: Great Lakes and Ohio River

District: Pittsburgh

Locks and Dams 2, 3, and 4, Monongahela River, PA

SUMMARIZED FINANCIAL DATA			STATUS (1 JAN 2011)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	\$ 845,000,000	/1	Renovation and extension of Locks 2 Upper Guard wall Bulkhead Structure L/D 2	100	Jan 98
Programmed Construction	845,000,000		Braddock Dam	100	Jul 04
Unprogrammed Construction	0		Remove L/D 3	0	To be determined
Estimated Non-Federal Cost	0		Raise and Lower Pool	0	To be determined
Total Estimated Programmed Construction Cost	845,000,000		Public Relocations	50	To be determined
Total Estimated Unprogrammed Construction Cost	0		Charleroi River Chamber Lock	19	To be determined
Total Estimated Project Cost	\$ 845,000,000		Charleroi Scour Protection	0	To be determined
			Charleroi Land Chamber Lock	0	To be determined
			Entire project	62 /2	To be determined

/1 Project cost being updated. Unapproved fully funded estimate is \$1,700,000,000. This project will require a Post Authorization Change Report when the allocated amount approaches the current estimated 902 Authorization Limit of \$1,100,000,000. Through December 2010, the project has been allocated \$522,947,733, including \$64,719,733 of ARRA funding, which is over \$500 million below the 902 Authorization Limit.

/2 Project completion percentage is based on the \$845,000,000 estimate and the \$522,947,733 received thru December 2010.

	GENERAL APPNS	INLAND WATERWAYS TRUST FUNDS	ACCUM PCT OF EST FED COST
Allocations to 30 September 2010	229,035,000	229,193,000	/1
Recovery Act Allocations as of 31 Dec 2010	64,719,733	0	
President's Budget for FY 2011	1,000,000	1,000,000	
Allocation for FY 2011	1,000,000	1,000,000	
Allocations through FY 2011	294,754,733	230,193,000	62.1%
Budget for FY 2012	500,000	500,000	62.1%
Programmed Balance to Complete after FY 2012	127,245,267	191,807,000	
Unprogrammed Balance to Complete after FY 2012	0	0	

/1 Includes \$12,542,300 of PED funds.

Division: Great Lakes and Ohio River

District: Pittsburgh

Locks and Dams 2, 3, and 4, Monongahela River, PA

JUSTIFICATION: The major risks associated with these facilities are their deteriorated structural condition and lock capacity. These risks are becoming increasingly severe as the facilities age and deteriorate. There is a significant probability of structural failure and loss of navigation on the Monongahela River. The extreme structural deterioration of Locks and Dam 3 and Locks 4 is of paramount concern. Replacement of Lock 4 and removal of Dam 3 are necessary because major repairs and rehabilitation will not prevent structural failure. The highest risks are at Elizabeth L/D 3 and at Charleroi L/D 4.

Lock 3 (Elizabeth) is highly unreliable. Dam 3 has been classified as a Dam Safety Action Class (DSAC) I navigation dam and has previously shown signs of active failure. Operation and Maintenance (O&M) funds were used in FY 2007 and FY 2008 to perform emergency stabilization work to the most critical portions of the 105 year old dam, providing a band-aid repair allowing the facility to operate for the next 5-10 years. Failure of Dam 3 would result in loss of navigation in pool 3, adverse impacts to multiple water intakes, and a potential failure of the only operational lock at Charleroi.

Lock 4 (Charleroi) is highly unreliable, over 75 years old and in poor condition. The Charleroi Dam was classified as a DSAC II dam in 2009. The District is focusing resources on completing the new Charleroi River Chamber. Loss of downstream pool, due to failure of Dam 3, would seriously affect the stability of the existing lock 4. Lock 4 has a 56 foot wide chamber which is a safety hazard to the navigation industry as well as a bottleneck to efficient navigation on the lower Monongahela River.

The continued viability of the Lower Monongahela River navigation system is vital to the economic well being of southwestern Pennsylvania, northeastern West Virginia, and the nation. Locks and Dam 2, 3, and 4 cumulatively provide over 14,000 direct jobs in the region. Loss of transportation on this river would have an extremely detrimental effect to the regional and local economy. Average annual benefits at 7 percent are as follows:

Annual Benefits	Amount
Commercial Navigation	\$ 39,729,000
Advanced replacement of shore side facilities	2,000,000
Eliminated cost of help boats	100,000
Flood damage reduction	500,000
Normal O&M reduction	1,000,000
Maintenance Savings	176,703,000
Total	\$ 220,032,000

FISCAL YEAR 2011:

Description	Amount
Continue prior year relocations	\$2,000,000
Total	\$2,000,000

FISCAL YEAR 2012: The requested amounts would be applied as follows:

Description	Amount
Continue prior year relocations	\$1,000,000
Total	\$1,000,000

Division: Great Lakes and Ohio River

District: Pittsburgh

Locks and Dams 2, 3, and 4, Monongahela River, PA

NON-FEDERAL COST: In accordance with the cost-sharing and financing concepts reflected in the Section 102, Water Resource Development Act of 1986, 50% of the total cost of construction will be derived from the Inland Waterways Trust Fund. Funds received under the ARRA of 2009 did not have a matching cost share from the IWTF.

Construction of this project requires modification to privately owned shore side facilities and submarine utility crossings, which were all constructed under Department of the Army permits pursuant to Section 10 of the Rivers and Harbors Act, approved March 3, 1899. The estimated cost to owners for adapting these facilities to new project conditions was \$111,000,000 in October 1992 dollars.

STATUS OF LOCAL COOPERATION: None required.

COMPARISON OF FEDERAL COST ESTIMATES: The most recent fully funded estimate for this project was \$845,000,000. The costs are being updated in FY2010 and FY2011. It is estimated that the revised fully funded project will be approximately \$1,700,000,000 (October 2010 dollars). The increase from \$845,000,000 to the unapproved estimate of \$1,700,000,000 reflects three major factors 1) funding significantly below the project capability level, 2) IWTF funding constraints beginning in FY2008 and extending indefinitely, 3) design modifications to assumptions made during the feasibility study in December 1991.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT COMPLIANCE: The final Environmental Impact Statement was filed with the Environmental Protection Agency on January 28, 1992. The Director of Civil Works signed the Record of Decision on December 17, 1992. A Supplemental Environmental Impact Statement on Project Disposal and various other Environmental Assessments, all resulting in Findings of No Significant Impact have been completed pursuant to the National Environmental Policy Act. Changes since the last supplemental have been captured through the issuance of Public Notices under the Clean Water Act.

OTHER INFORMATION: Funding for this project is severely constrained by the availability of Inland Waterways Trust (IWTF) funds. Funds to initiate preconstruction engineering and design were first appropriated in FY 1992. Funds to initiate construction were first appropriated in FY 1995. The original project was to be completed in FY 2004. Annual shortfalls in project funding have extended the project's schedule and escalated the estimated project cost to \$1,700,000,000 (unapproved). Further, due to IWTF funding constraints and the limited use of the continuing contracts clause, funding at the capability level is unexpected for the next several fiscal years, thereby extending project completion even further into the decade of 2030. Extensions of this project schedule directly affect the O&M funding needs on the Monongahela River. Funding the project at a capability level is highly unrealistic with the current funding constraints related to the IWTF. The actual scheduled project completion date cannot be determined until the funding stream is identified.

Division: Great Lakes and Ohio River

District: Pittsburgh

Locks and Dams 2, 3, and 4, Monongahela River, PA

APPROPRIATION TITLE: Construction - Locks and Dams (Navigation)

PROJECT: Olmsted Locks and Dam, Illinois and Kentucky (Continuing)

LOCATION: The project is located in Pulaski County, Illinois, and Ballard County, Kentucky, on the Ohio River near Olmsted, Illinois, approximately 964 miles downstream from Pittsburgh, Pennsylvania.

DESCRIPTION: The project will replace Ohio River Locks and Dams (L/D) 52 and 53. The new structure will consist of two 110' by 1200' locks adjacent to the Illinois shore and a dam comprised of tainter gates, navigable pass, and a fixed weir. All work is programmed.

AUTHORIZATION: Section 3(a) (6) of WRDA 1988 (P.L. 100-676)

REMAINING BENEFIT-REMAINING COST RATIO: 9.5 to 1 at 7 percent

TOTAL BENEFIT-COST RATIO: 11.6 to 1 at 7 percent

INITIAL BENEFIT-COST RATIO: 3.7 at 8 3/4 percent (FY 1991)

BASIS OF BENEFIT-COST RATIO: Benefits are based on the Olmsted Locks and Dam Post Authorization Change Report, dated May 2008.

SUMMARIZED FINANCIAL DATA		STATUS (1 Jan 2011)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	\$ 2,046,000,000	Entire Project	62	TBD
General Appropriations	\$ 1,037,655,500			
Inland Waterways Trust Fund	\$ 1,008,344,500			
Estimated Non-Federal Cost	0	PHYSICAL DATA		
Total Estimated Project Cost	\$ 2,046,000,000	Lock - 110 by 1,200 foot Chambers		2
		Dam - Navigable Pass		1,400 ft.
		Fixed Weir		561 ft.
		Tainter Gates		744 ft.
		Acres – Dam		123 acres
		Road		21 acres
		Disposal Area		114 acres

Division: Great Lakes & Ohio River

District: Louisville

Olmsted Locks & Dam, IL. & KY

SUMMARIZED FINANCIAL DATA (Continued)	GENERAL APPNS.	INLAND WATERWAYS TRUST FUNDS	ACCUM. PCT. OF EST. FED. COST
Allocations to 30 September 2008	\$496,473,500	\$496,473,500	49
Allocation for FY 2009	50,171,500	50,171,500	53
Allocation for FY 2010	55,136,000	55,136,000	59
Recovery Act Allocations as of 31 Dec 2010	29,311,000	0	60
President's Budget for FY 2011	68,000,000	68,000,000	
Allocation for FY 2011	68,000,000	68,000,000	67
Allocations through FY 2011	699,092,000	669,781,000	67
Budget for FY 2012	75,000,000	75,000,000	74
Programmed Balance to Complete after FY 2012	\$263,563,500	\$263,563,500	100
Unprogrammed Balance to Complete after FY 2012	0	0	

JUSTIFICATION: The project is in a strategic location on the inland waterway system. Virtually all waterway traffic moving between the Ohio River and tributaries and the Mississippi River and tributaries passes through the project area. Olmsted L/D will replace existing Ohio River L/D 52 and 53, which are over 80 years old. L/D 52 was rated F in its most recent condition assessment. Both projects have temporary lock chambers that are inefficient and neither project conforms to current design criteria for structural stability. Commercial navigation in 2009 was 80 million tons through Lock 52 and 68 million tons through Lock 53. Over the last five years, tonnage has been relatively constant, with the 5 year average of 90 million tons through Lock 52 and 79 million tons through Lock 53. The long term (2010-2030) average annual growth rate is projected to be between 0.9 and 1.1 percent. The value of the commodities through the project area in 2007 was estimated at \$14 billion. Coal comprises approximately 21% of the total tonnage, aggregates 18%, petroleum 11%, grain 13%, iron/steel 15%, chemicals 10% and ores / minerals and other 11%. The projected increases in waterway traffic demands in combination with the limited capacity of the existing locks will result in increased lockage delays, costing the industry \$488 million on an annual basis.

The following counties qualify as areas of "substantial and persistent" unemployment:

Illinois - Alexander, Johnson, Massac, Pope, Pulaski, and Union
Kentucky - Ballard, Carlisle, Graves, Livingston, and Marshall

Average annual benefits at 7 percent in 2008 price levels are as follows:

Annual Benefits	Amount
Navigation	\$ 488,074,515
Total	\$ 488,074,515

Division: Great Lakes & Ohio River

District: Louisville

Olmsted Locks & Dam, IL. & KY

FISCAL YEAR 2011: The current amount will be applied as follows:

Continue Dam Construction Contract	\$ 128,000,000
Mussel Monitoring	446,000
Planning, Engineering, and Design	1,234,000
Construction Management	5,856,000
Lock Operation during Construction (Hired Labor)	464,000
Total	\$ 136,000,000

FISCAL YEAR 2012: The requested amount will be applied as follows:

Continue Dam Construction Contract	\$ 140,530,000
Mussel Monitoring	467,000
Planning, Engineering, and Design	1,551,000
Construction Management	6,885,000
Lock Operation during Construction (Hired Labor)	567,000
Total	\$ 150,000,000

NON-FEDERAL COSTS: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act (WRDA) of 1986, 50% of the total cost of construction will be derived from the Inland Waterways Trust Fund. Funds allocated under the American Reinvestment and Recovery Act are not subject to the cost sharing provisions of WRDA 1986.

STATUS OF LOCAL COOPERATION: None required.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$2,046,000,000 is an increase of \$2,000,000 from the latest estimate (\$2,044,000,000) presented to Congress (FY 2011). The change includes the following item.

Item	Amount
Price Escalation on Construction Features	\$ 2,000,000

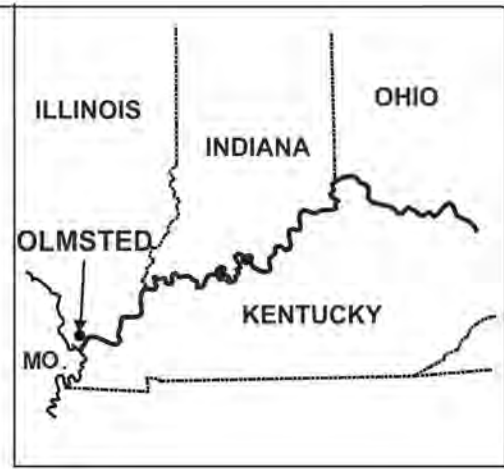
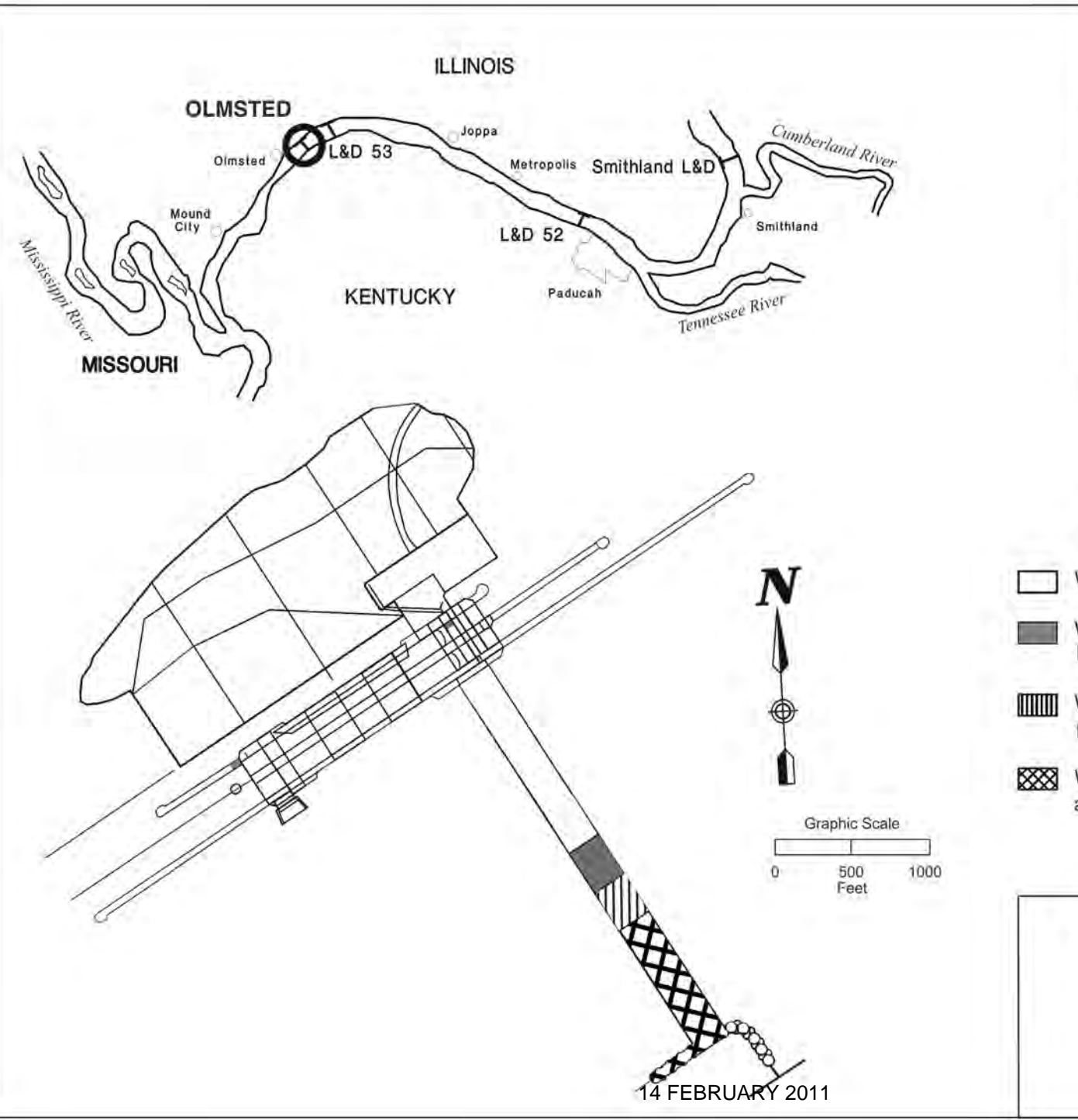
STATUS OF ENVIRONMENTAL IMPACT STATEMENT: A final Environmental Impact Statement (EIS) was filed with the Environmental Protection Agency on April 4, 1986. Due to project changes, a Draft Supplemental EIS was filed in November 1991. The Final Supplement to the EIS was filed on March 26, 1993, and the Record of Decision was signed on May 5, 1993.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1986. Funds to initiate construction were appropriated in FY 1991. The twin 110 x 1,200-foot locks were substantially completed in 2005. Dam construction was initiated in Jan 2004. Demolition of L/D 52 and 53 will follow completion of dam construction. The scheduled completion date has not changed from the latest presented to Congress (FY 2011) "To Be Determined".





Division: Great Lakes & Ohio River

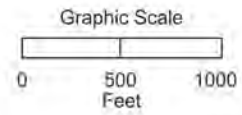
District: Louisville

Olmsted Locks & Dam, IL. & KY



Legend - Status of Work

-  Work completed as of September 2010
-  Work underway with funds available for FY11
-  Work proposed with funds requested for FY12
-  Work required to complete the project after FY12



OLMSTED LOCKS & DAM

LOUISVILLE DISTRICT
 GREAT LAKES AND
 OHIO RIVER DIVISION

ENVIRONMENT

INVESTIGATIONS

APPROPRIATION TITLE: Investigations, Environment, Fiscal Year 2012

Great Lakes and Ohio River Division

Study		Total Estimated Federal Cost \$	Allocation thru FY 2009 \$	Allocation FY 2010 \$	GLRI ¹ Allocation thru FY 2010 \$	Allocation FY 2011 \$	Tentative Allocation FY 2012 \$	Additional to Complete After FY 2012 \$
PRECONSTRUCTION ENGINEERING AND DESIGN (PED) ACTIVITIES								
Indiana Harbor, IN	Annual Allocations	3,555,000	478,000	500,000	0	300,000	300,000	1,977,000
(Grand Calumet River	ARRA Allocations							
Environmental Dredging)	Total Allocations	3,555,000	478,000	500,000	0	300,000	300,000	1,977,000
Chicago District								

The project area is located in northwest Indiana in the communities of Gary, East Chicago, and Hammond, Indiana. Water Resources Development Act of 1990, Section, P. L. Number 101-640, § 312, 104 Stat. 4639; and Water Resources Development Act of 1996, Pub. L. No. 104-303, Section 205, 110 Stat. 3679. The project area covers 15.4 miles of river and adjacent wetlands, including the Indiana portion of the Grand Calumet River (GCR) with the exception of an area cleaned up by United States Steel, and the portions of the Lake George Canal and the Indiana Harbor Canal that are not part of the federal navigation channel. This project will remove up to 2,000,000 cubic yards of sediments that are highly contaminated with PAHs, metals, and PCB's (below the Toxic Substance Control Act level), causing it to be designated an Area of Concern (AOC) in the Great Lakes Water Quality Agreement. The GCR fails all fourteen beneficial uses and is ranked as the most impaired of all 43 AOCs. Contaminated sediments discharged from the GCR put the potable water supply for 223,000 people at risk. Modeling the movement of discharged GCR contaminated sediments identified over 900,000 acres along the eastern shore of Lake Michigan where bioaccumulation of contaminants can occur. The project will also isolate any remaining in-situ river contaminants with the placement of an engineered cap that will provide suitable substrate for habitat restoration. The GCR is a high priority area for the Indiana Department of Environment Management and the Indiana Department of Natural Resources, the non-Federal sponsors, the U.S. Fish and Wildlife Service and the U.S. Environmental Protection Agency. The purpose of this PED phase is to design the recommended alternatives for management of the contaminated sediment including sediment removal, stabilization of embankments, and other features within the Ordinary High Water Mark for the GCR. Contaminated sediment is the primary source of contamination and ecological degradation, and environmental restoration cannot occur without removal or management of the contaminated sediment. The locally preferred plan is likely to be the recommended plan with an estimated total project cost of approximately \$150,000,000, over a 20-year construction period. The 20 year construction period is based upon anticipated annual Federal appropriations. PED will ultimately be cost shared at 35% non-Federal, but will be financed through the PED phase at 25% non-Federal. Any adjustments that may be necessary to bring the non-Federal contribution in line with the project cost sharing will be accomplished in the first year of construction.

Total Estimated Preconstruction Engineering and Design Costs	\$4,740,000
Initial Federal Share	3,555,000
Initial Non-Federal Share	1,185,000

Total Estimated Preconstruction Engineering and Design Costs	\$4,740,000
Ultimate Federal Share	3,080,000
Ultimate Non-Federal Share	1,660,000

FY 2010 carryover funds will be used to continue work on the Feasibility Study, Environmental Impact Statement in FY 2011. Carryover funds from FY 2010 along with FY 2011 are being used to complete Feasibility Study and initiate PED. FY 2012 funds will be used to continue work on PED. PED completion date is "To Be Determined".

¹ Great Lakes Restoration Initiative

Study		Total Estimated Federal Cost \$	Allocation thru FY 2009 \$	Allocation FY 2010 \$	GLRI ¹ Allocation FY2010 \$	Allocation FY 2011 \$	Tentative Allocation FY 2012 \$	Additional to Complete After FY2012 \$
Interbasin Control of Great Lakes- Mississippi River Aquatic Nuisance Species, IL, IN, OH, & WI Chicago District	Annual Allocations	25,500,000	287,000	269,000	3,650,000	400,000	3,000,000	17,894,000
	ARRA Allocations			0				
	Total Allocations	25,500,000	287,000	269,000	3,650,000	400,000	3,000,000	17,894,000

The Chicago Area Waterway System (CAWS) is a series of man-made and natural waterways that connect the Great Lakes and Mississippi River basins. This study is authorized by Water Resources Development Act of 2007, Pub. L. No. 110-114, Section 3061(d), 121 Stat. 1121. The CAWS provides a potential pathway for aquatic nuisance species (ANS) to spread. Since 2002, an electric dispersal barrier system has been operating in the Chicago Sanitary Ship Canal (CSSC), one of the man-made waterways within the CAWS. The first barrier, Barrier I, was built as a temporary demonstration barrier and continues to operate. A second more permanent and powerful electric barrier (Barrier IIA), began operating in 2009. Barrier IIB will be completed in 2011. These barriers are designed to stop the movement of Asian carp, an ANS of significant concern to Great Lakes states, but do not protect against the full range of potential ANS that could transfer between the two basins.

The Great Lakes Mississippi River Interbasin Study (GLMRIS) is necessary to examine the full range of options and technologies available to prevent the spread of all aquatic nuisance species at all life stages between the Great Lakes and Mississippi River basins through the CAWS, as well as other aquatic pathways between the basins. The implementation of this study is anticipated to 1) identify potential hydraulic connections, in addition to the CSSC, that may exist between the Great Lakes and Mississippi River basins; 2) identify potential aquatic nuisance species; 3) analyze possible options and technologies to prevent ANS transfer; 4) complete a thorough and comprehensive analysis of the gathered data; and 5) develop, evaluate and recommend alternatives to prevent ANS transfer between the basins.

GLMRIS is currently being conducted in two Focus Areas. Focus Area I will concentrate on the potential threat of ANS transfer between the basins using Chicago Area Waterway System and will include the evaluation of long-term measures, including potential hydraulic separation, to prevent the spread of aquatic nuisance species via this system. Focus Area II of GLMRIS includes a comprehensive inventory and characterization of additional surface water connections between the Great Lakes and Mississippi River basins. The purpose of ongoing reconnaissance-level investigation is to characterize each potential connection relative to ANS inter-basin transfer consequences, and provide a basis for prioritizing and scoping a path forward at each connection.

This study will be thoroughly coordinated with other federal agencies, states, local governments, international organizations and regional stakeholders. The preliminary estimated cost of the feasibility phase is \$25,500,000. This study is authorized to be 100 percent Federally-funded. FY 2011 funds are being used to continue collection of economic, environmental, and social data to adequately inform a risk-based analysis of alternatives for ecological separation of the basins. The study team is working with other Federal, state, and regional agencies to identify areas where efficiencies can be gained during the study and plan to deliver interim study products to help inform decision makers on the most appropriate courses of action to minimize the risk of aquatic nuisance species transfer between the basins.

FY 2012 funds will also be used to continue Feasibility Study efforts, which will include additional technical efforts including data gap analysis and data collection, and initiation of analyses. The Feasibility completion date for Focus Area I is "To be determined".

¹ Great Lakes Restoration Initiative

CONSTRUCTION

APPROPRIATION TITLE: Construction - (Environmental Mitigation, Restoration and Protection)

PROJECT: Chicago Sanitary & Ship Canal Dispersal Barriers, Illinois (Continuing)

LOCATION: The Dispersal Barriers are near River Mile 296.5 in Romeoville, IL in Cook County.

DESCRIPTION: The Chicago Sanitary and Ship Canal (CSSC) is a man-made waterway that connects the Chicago River and Des Plaines River, creating the only continuous waterway connection between the Great Lakes and Mississippi River basins. The dispersal barrier system was developed to prevent the spread of invasive fish species between these watersheds. It includes the construction and operation of a set of three electrical barriers, known as Barriers I, IIA, and IIB. A temporary Demonstration Dispersal Barrier (Barrier I) was constructed and has been operating in the CSSC since 2002. A permanent electric barrier (Barrier II), with a design life of 20 years, is being implemented in two independent stages (A & B). Barrier IIA is constructed and has been operational since April 2009. Barrier IIB is in construction and will be operational in FY 2011. When both stages of Barrier II are operational, Barrier I will be upgraded to a permanent facility.

Barrier I and Barrier II were authorized as separate projects. Section 3061 of WRDA 2007 reauthorized the barriers as a single project at Federal expense. WRDA 2007 also authorized USACE to upgrade and make permanent Barrier I; complete Barrier II; operate and maintain both barriers as a system; conduct a study of a range of options and technologies for reducing impacts of hazards that may reduce the efficacy of the barriers (Efficacy Study); and provide to each state a credit in an amount equal to the amount of funds the state contributed toward Barrier II. Section 126 of the Energy & Water Appropriations Act of 2010 provided authority for the implementation of recommendations from the Efficacy Study. Three Efficacy Study interim reports have been completed. The Interim I report showed that during flood events, flows from the neighboring Des Plaines River and Illinois & Michigan Canal could provide fish a bypass route around the barriers. Construction of measures to reduce the risk of these bypasses was completed in October 2010 with funding from the Great Lakes Restoration Initiative. The Interim III report recommended installation of screens on sluice gates at the O'Brien Lock & Dam. These screens were installed in December 2010. The Interim IIIA report identified a demonstration acoustic bubble strobe dispersal barrier as another possible tool for preventing Asian carp from establishing in the Great Lakes.

AUTHORIZATION: Section 126, Energy & Water Development Appropriations Act of 2010 (P.L. 111-85). Section 3061, Water Resources Development Act 2007. (P.L. 110-114). Barrier I: Section 1202, Non-indigenous Aquatic Nuisance Prevention and Control Act of 1990, as amended (P.L. 101-636), Section 2309, Emergency Supplemental Appropriations Act for Defense, the Global War on Terror, and Hurricane Recovery 2006 (P.L. 109-234). Barrier II: Section 1135, Water Resources Development Act 1986 (P.L. 99-662) (Continuing Authority Program), Section 345, FY 2005 DC Appropriations Act (P.L. 108-335).

REMAINING BENEFIT-REMAINING COST RATIO: N/A

TOTAL BENEFIT-COST RATIO: N/A

INITIAL BENEFIT-COST RATIO: N/A

BASIS OF BENEFIT-COST RATIO: N/A

SUMMARIZED FINANCIAL DATA

PHYSICAL PERCENT COMPLETION

Division: Great Lakes and Ohio River

District: Chicago

Chicago Sanitary and Ship Canal Dispersal Barrier, IL

	<u>Demo Barrier I</u>	<u>Other Barriers</u> ^{1/}	STATUS (1 Jan 2011)	COMPLETE	SCHEDULE
Estimated Federal Cost	\$5,808,000	\$94,467,000	Barrier I	40	To be determined
Estimated Non-Federal Cost	0	0	Barrier II	90	Mar 2011
Cash Contributions		2,275,000 ^{2/}	ABS Barrier	0	To be determined
Other Costs		0	4 th Electrical Barrier	0	To be determined
Physical Data					
Project Cost Subtotals	\$5,808,000	\$96,742,000	Barrier I: currently 12 160-ft steel cable electrodes over 54 ft of the CSSC + control building, permanent not yet designed.		
Total Estimated Project Cost buildings.		\$102,550,000	Barrier II: 84 160-ft steel billet electrodes over 480 ft of the CSSC + 2 control buildings.		
			4 th Electric Barrier: Not yet designed.		

^{1/} Includes Barrier II, Permanent Barrier I, and risk reduction measures recommended in the Efficacy Study.

^{2/} Non-federal cash contributions for which a credit is to be provided.

SUMMARIZED FINANCIAL DATA

	<u>Demo Barrier I</u>	<u>Barrier II & Perm. Barrier I</u>	<u>Total</u>	ACCUM. PCT. OF EST. FED. COST
Allocations to 30 September 2008	\$5,308,000	\$14,697,000 ^{3/}	\$20,005,000	
Allocations for FY 2009	500,000	7,857,347	8,357,347	
Allocation for FY 2010	0	5,826,000	5,826,000	
Conference Allowance for FY 2011	0	TBD	TBD	
Recovery Act Allocations as of 31 Dec 2010	0	19,000,000	19,000,000	
Allocation for FY 2011	0	12,650,000 ^{4/}	12,650,000	
Allocations thru FY 2011	5,808,000	60,030,347	65,838,347	64
Great Lakes Restoration Initiative Allocation for FY 2010	0	7,435,000	7,435,000	
Budget for FY 2012	0	13,500,000	13,500,000	85
Programmed Balance to Complete after FY 2012	0	21,584,653	21,584,653	
Unprogrammed Balance to Complete after FY 2012	0	0	0	

^{3/} Includes CAP Section 1135 allocations of \$3,702,000.

^{4/} Assumes CG allocation of \$12,650,000 in FY2011 under a year long CR.

JUSTIFICATION: The Chicago Sanitary and Ship Canal is the only continuous waterway link between the Great Lakes and Mississippi River watersheds.

Division: Great Lakes and Ohio River

District: Chicago

Chicago Sanitary and Ship Canal Dispersal Barrier, IL

Therefore, it is the primary potential hydraulic corridor for migration of aquatic nuisance species between these two major basins. The adverse economic and ecological effects of invasive species can be highly significant, as evidenced by the Zebra Mussel and Sea Lamprey infestations of the Great Lakes. Asian carp are currently the primary concern and are now present downstream of the barriers. Ongoing laboratory research and field monitoring indicate that the barriers provide an effective deterrent to Asian carp migration. Implementation of the Efficacy Study recommendations will further improve the effectiveness of the barriers.

FISCAL YEAR 2010: Great Lakes Restoration Initiative funding was applied as follows:

Construct Interim Solutions for Potential Barrier Bypasses	\$6,000,000
Design, Construction Management, & Maintenance Activities for Interim Solutions	1,435,000
Total	7,435,000

FISCAL YEAR 2011: The allocation amount of \$12,650,000 will be applied as follows:

Complete Construction of Barrier IIB	\$2,000,000
Safety Testing for Barrier IIB	750,000
Operate and Maintain Barriers	\$6,800,000
Initiate Design of Permanent Barrier I	1,050,000
Perform Asian carp Location Monitoring	1,050,000
Complete the Efficacy Study	1,000,000
Total	\$12,650,000

FISCAL YEAR 2012: The requested amount of \$13,500,000 will be applied as follows:

Complete Design & Begin Construction of Permanent Barrier I	\$10,500,000
Complete Improvements at Barrier IIA	3,000,000
Total	\$13,500,000

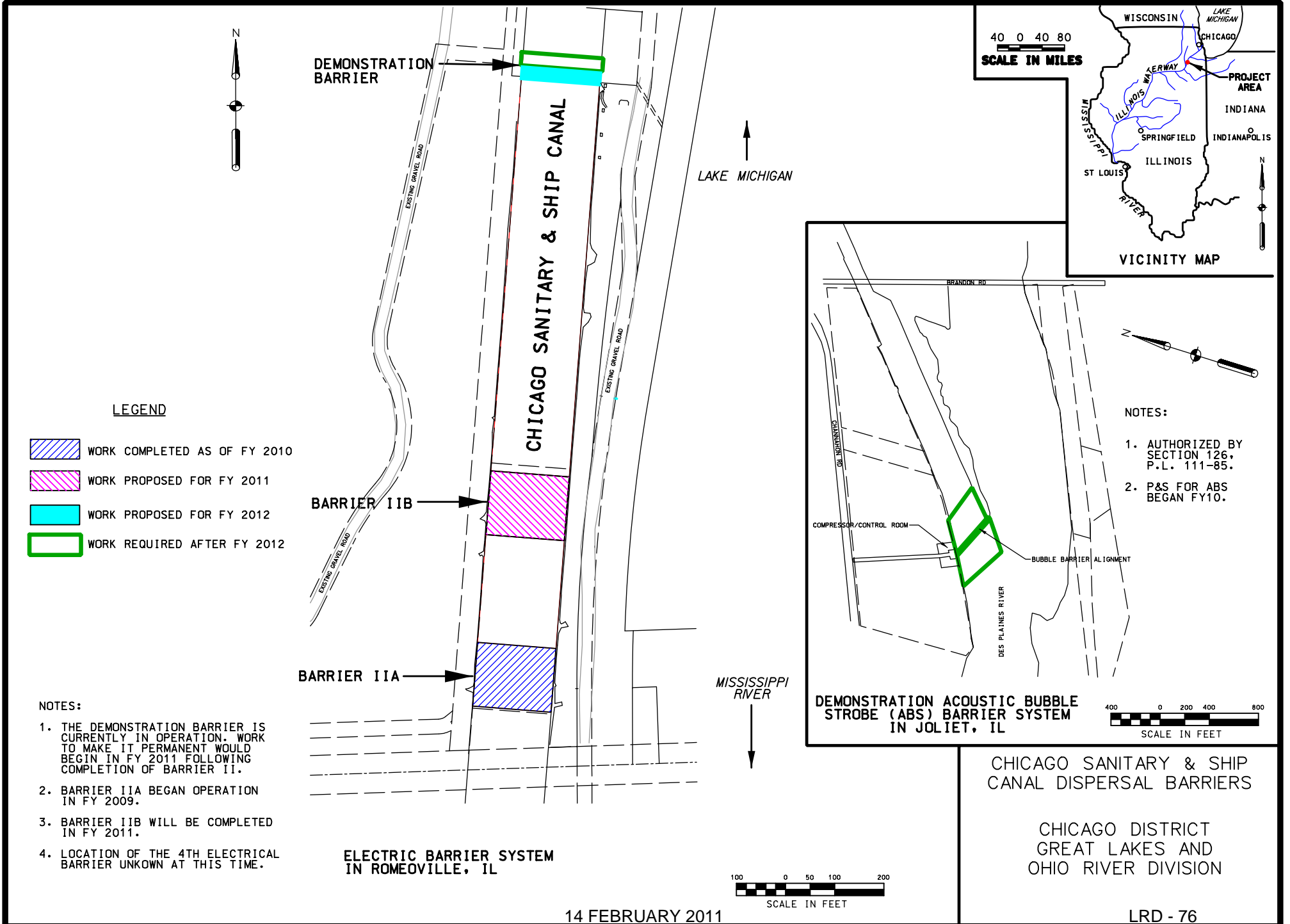
NON-FEDERAL COST: The non-Federal contribution to the project through FY07 was \$2,275,000. WRDA 2007 made the remainder of the project, including future operation and maintenance, a full Federal responsibility and provides the states that previously contributed to the project a credit on future work with the Corps for the funds they contributed.

STATUS OF LOCAL COOPERATION: As a result of WRDA 2007, the barrier project is 100% Federal. The State of Illinois was the local sponsor for the Barrier II project. The Project Cooperation Agreement was executed on 21 November 2003 and amended on 14 July 2005.





COMPARISON OF FEDERAL COST ESTIMATE: The current Federal cost estimate is \$102,550,000. The Federal cost estimate reported for the FY 2011 budget was \$91,000,000. The increase of \$11,550,000 is primarily due to increased construction costs for Barrier IIB and an assumed FY2011 CG allocation in the amount of \$12,650,000. Project costs may further increase due to the implementation of risk reduction measures recommended in the Efficacy Study.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Environmental Assessment was issued in August 1999. A Finding of No Significant Impact was signed 28 December 1999.

OTHER INFORMATION: Funds to initiate construction for Barrier I were first appropriated in FY 1998. Barrier II was initiated under Section 1135, WRDA 1986. After Section 345 was enacted, funds specifically for Barrier II were appropriated in FY 2005. Authorization to implement temporary solutions to the potential bypasses was contained in Section 126 of the FY 2010 Energy & Water Appropriations Act. Funding (\$7,435,000) to construct measures to prevent bypassing of the barriers was provided in FY 2010 through the Great Lakes Restoration Initiative.

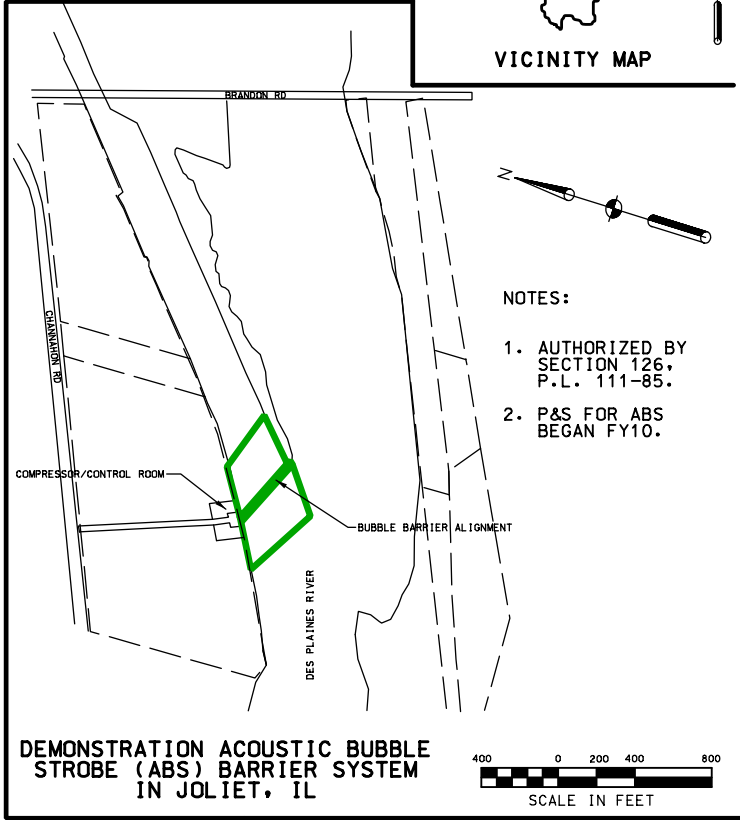
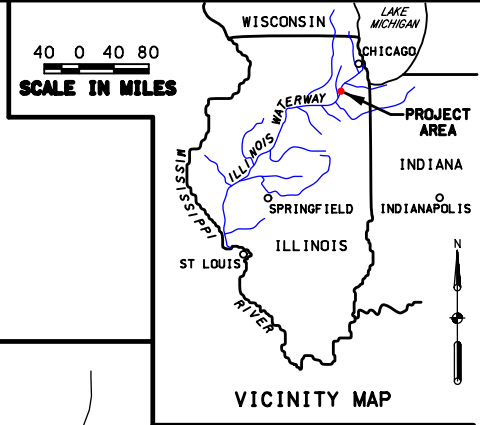


LEGEND

-  WORK COMPLETED AS OF FY 2010
-  WORK PROPOSED FOR FY 2011
-  WORK PROPOSED FOR FY 2012
-  WORK REQUIRED AFTER FY 2012

- NOTES:**
1. THE DEMONSTRATION BARRIER IS CURRENTLY IN OPERATION. WORK TO MAKE IT PERMANENT WOULD BEGIN IN FY 2011 FOLLOWING COMPLETION OF BARRIER II.
 2. BARRIER IIA BEGAN OPERATION IN FY 2009.
 3. BARRIER IIB WILL BE COMPLETED IN FY 2011.
 4. LOCATION OF THE 4TH ELECTRICAL BARRIER UNKNOWN AT THIS TIME.

ELECTRIC BARRIER SYSTEM IN ROMEOVILLE, IL



CHICAGO SANITARY & SHIP CANAL DISPERSAL BARRIERS

CHICAGO DISTRICT GREAT LAKES AND OHIO RIVER DIVISION

14 FEBRUARY 2011

LRD - 76

OPERATION AND MAINTENANCE

Key to Abbreviations:

N=Navigation

FRM=Flood Risk Management

REC=Recreation

HYDRO=Hydropower

ES=Environmental Stewardship

WS=Water Supply

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Allegheny River, PA

AUTHORIZATION: Rivers and Harbors Act 1912 and 1935; Emergency Relief Administration program 1935

LOCATION AND DESCRIPTION: Project consists of the navigable portion of the Allegheny River which extends 72 miles from the point in Pittsburgh, PA to East Brady, PA. Commercial and recreational navigation is provided from eight locks and dams which are Locks and Dams 2 thru 9 within the 72 mile reach of river, including the CW Bill Young Lock and Dam (formerly Lock and Dam 3).

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$ 5,511,238

ALLOCATION FOR FY2011: \$ 8,456,000

BUDGET FOR FY2012: M: \$ 0 O: \$ 4,000,000 T: \$ 4,000,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$4,000,000 – Operate and maintain eight navigation locks and dams. Locks 2, CW Bill Young and 4 will be operated 24 hours per day, 365 days per year for single lockage; double and triple lockage will be prohibited. Locks 5, 6, 7, 8 and 9 will only be available for commercial navigation lockages by appointment and will be closed for all recreation traffic. Project provides approximately 118 miles of navigable river including eight navigation facilities.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: The Allegheny River navigation system serviced 2,490,000 tons of cargo in 2008. The lower Allegheny River (L/Ds 2-4) has higher use navigation facilities. The upper Allegheny River (L/Ds 5-9) has very limited commercial traffic and mostly serves recreational river traffic.

Division: Great Lakes and Ohio River District: Pittsburgh

Allegheny River, PA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Alum Creek Lake, OH

AUTHORIZATION: Section 203 of Flood Control Act of 1962 (P.L. 87-874)

LOCATION AND DESCRIPTION: Alum Creek Lake is located in Delaware County, OH, on a tributary of the Scioto River. It is 26 miles above the mouth of Alum Creek and 157 miles above the mouth of the Scioto River. Alum Creek is impounded by a rolled earth fill dam with a gated concrete spillway. The crest length of the dam is 10,200 feet. The dam was completed in August 1974.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$1,921,000

ALLOCATION FOR FY 2011: \$1,435,000

BUDGET FOR FY 2012: M: \$16,000 O: \$1,446,000 T: \$1,462,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: \$1,003,000 – Funding provides for routine operations and maintenance for flood and coastal storm damage reduction, including required inspections to enhance the quality of American life by reducing flood risk to both life and property, providing benefits to individuals, communities, and the national economy.

Rec: \$237,000 – Funding provides for routine operations and maintenance to provide recreational opportunities to the public to enhance the quality of American life by providing benefits to individuals, communities, the national economy, and the environment.

Hydro: N/A

ES: \$72,000 – Funding provides for routine operations and maintenance for environmental stewardship to provide management of natural and cultural resources to achieve healthy, sustainable conditions, and foster healthy lands and waters by balancing public uses and needs.

WS: \$150,000 – Funding provides for routine operations and maintenance for water supply to provide an estimated 35 million gallon per day of water supply for the health, safety and economy of approximately 100,000 citizens in the Columbus, OH metro area.

OTHER INFORMATION: Alum Creek Lake has prevented over \$148,000,000 in damages over the course of its operation. Project visitation for FY 2010 totaled 3,797,430.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Barkley Dam & Lake Barkley, KY & TN

AUTHORIZATION: River and Harbor Act 1946

LOCATION AND DESCRIPTION: Barkley Dam and Lake Barkley is located in southwestern Kentucky near Paducah, KY. Project consists of a 110' x 800' lock, earth & concrete gravity-type dam, hydropower plant & a flood storage reservoir with recreation & stewardship areas.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$4,587,800

ALLOCATION FOR FY 2011: \$10,025,000

BUDGET FOR FY 2012: M: \$2,269,000 O: \$7,822,000 T: \$10,091,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$5,028,000- Funding provides for routine operations & maintenance for navigation; critical fleet maintenance; continued development of upland disposal area for dredged material; navigation joint costs for data acquisition for dam safety, FDR operations and Real Estate to resolve encroachments. Funds would improve navigation performance by providing maintenance of locks and channels, thus reducing industry delays.

FRM: \$326,000 - Funding provides for routine operations & maintenance at minimum levels. Joint operations are necessary to maintain flood control operation of the river.

Rec: \$1,284,000 - Funding provides for critical health and safety maintenance and services at minimally acceptable levels for designated recreation areas, including access points, overlooks, day use areas and campgrounds.

Hydro: \$2,890,000 - Funding provides for routine operations and maintenance for hydroelectric power plant and hydropower joint costs for operation and maintenance of the dam. Funds would allow power plant to accomplish assigned missions of providing low cost reliable electric power by maintaining optimum availability and peak availability and maintain control of the river.

ES: \$545,000 - Funding provides for the management of natural resources including operation, safety, environmental compliance, maintenance of the project boundary line, shoreline management, and cultural resources. Funding assures sustainability of natural resources in accordance with the Corps Environmental Operating Principles and stewardship policies and prevents loss and degradation of more than 108,000 acres of project lands and water.

WS: \$18,000 - Funding provides for evaluating all new intake requests' impacts to navigation. System wide operation of Cumberland River requires maintaining a water supply database.

OTHER INFORMATION: Steady and reliable movement of coal and aggregate is vital to the Tennessee Valley Authority due to limited storage at their fossil fuel power plants. Shippers relying on Barkley Lock realized average annual transportation cost savings of more than \$49,000,000. Hydropower plant generates 690,000 MWH of energy annually, enough supply for 58,000 homes. Ranks #22 in the USACE for recreation with 3,300,000 project visits in FY09 with \$70,000,000 in trip spending.

Division: Great Lakes and Ohio River

District: Nashville

Barkley Dam and Lake Barkley, KY & TN

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Barren River Lake, KY

AUTHORIZATION: Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Barren River Lake is located in south-central Kentucky approx 95 miles south of Louisville and about 16 miles southwest of Glasgow, Kentucky. The dam site is at mile 79.2 on Barren River. The dam is rolled earth and rockfill, 146 ft high and 3,970 ft long. The lake area lies in Allen and Barren Counties with a small portion located in Monroe County. The project was authorized as a multi-purpose flood control project with additional authorized responsibilities for recreation management, environmental stewardship, water supply and water quality.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$2,617,000

ALLOCATION FOR FY2011: \$3,454,000

BUDGET FOR FY2012: M: \$20,000 **O:** \$2,342,000 **T:** \$2,362,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2012:

N: \$0 - N/A

FRM: \$1,549,000 – Funding provides for routine operation and maintenance of the dam, outlet works and related infrastructure. These funds support execution of our mission to prevent damages to flood-prone areas, property and communities in the floodway, as well as the destructive impacts of floods on human activities within those areas. Critical dam safety programs and activities are also supported with these funds.

Rec: \$595,000 – Funding provides for routine operation and maintenance of day-use and overnight recreation areas, facilities and features. These funds support management of the recreation program and public visitation by providing safe recreation facilities, healthy recreation experiences, and visitor assistance and protection, as well as for real estate functions to support recreation management by other lessees, agencies and partners.

Hydro: \$0 - N/A

ES: \$206,000 – Funding provides for performance of environmental stewardship activities which protects the health, sustainability and integrity of the public lands associated with this project. Activities include natural resource management practices, environmental evaluations and reviews, shoreline protection, cultural resource investigations, water quality control, boundary line inspection, and encroachment resolution.

WS: \$12,000 – Funding provides for performance of annual activities required to support the negotiation, revision and/or coordination of water supply contracts, and addresses local and congressional interests and concerns for water needs affecting public health and welfare.

OTHER INFORMATION: FY2009 flood damages prevented were \$5.38M, FY2009 recreation visits were 1.2M, and FY2009 visitor expenditures were \$33.48M.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Beech Fork Lake, WV

AUTHORIZATION: Section 203 of Flood Control Act of 1962 (P.L. 87-874)

LOCATION AND DESCRIPTION: Beech Fork Lake is located in Wayne County, WV on Twelvepole Creek. It is 3.7 miles above the mouth and 2 miles southeast of Lavalette, WV. The lake is impounded by a rolled earth fill dam with a maximum height of 86 feet and a crest length of 1,080 feet. The dam was completed in February 1977.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$1,731,000

ALLOCATION FOR FY 2011: \$1,377,000

BUDGET FOR FY 2012: M: \$0 O: \$1,366,000 T: \$1,366,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: \$868,000 – Funding provides for routine operations and maintenance for flood and coastal storm damage reduction to enhance the quality of American life by reducing flood risk to both life and property, providing benefits to individuals, communities, and the national economy.

Rec: \$451,000 – Funding provides for routine operations and maintenance to provide recreational opportunities to the public to enhance the quality of American life by providing benefits to individuals, communities, the national economy, and the environment.

Hydro: N/A

ES: \$47,000 – Funding provides for routine operations and maintenance for environmental stewardship to provide management of natural and cultural resources to achieve healthy, sustainable conditions, and foster healthy lands and waters by balancing public uses and needs.

WS: N/A

OTHER INFORMATION: Beech Fork Lake has prevented over \$20,000,000 in damages over the course of its operation. Project visitation for FY 2010 totaled 1,337,664.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Berlin Lake, OH

AUTHORIZATION: Flood Control Act of 28 June 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Berlin Lake Dam is located on the Mahoning River in Mahoning and Portage Counties, OH, about 10 miles upstream from Milton Dam (Non-Federal Project) and about 35 miles upstream from Warren, OH. The lake is located in Mahoning, Portage and Stark Counties, OH. Berlin Lake is a multi-purpose reservoir.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$ 3,576,357

ALLOCATION FOR FY2011: \$ 2,347,000

BUDGET FOR FY2012: M: \$ 23,000 O: \$2,590,000 T: \$ 2,613,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: \$1,823,000 – Accomplish flood reduction mission by operation of the dam, water control management, dam safety inspections, required safety related analysis and studies, and real estate outgrant management.

Rec: \$648,000 – Operate and maintain recreation facilities, including the largest campground in the District with 348 campsites. The lake has four boat launch ramps. Also fulfills Corps requirements for visitor health and safety.

Hydro: N/A

ES: \$57,000 – Accomplish shoreline management, threatened/endangered species surveillance, cultural resource protection/preservation, invasive species eradication, and protection of natural resources. These funds will assure sustainability of natural resources in accordance with the Corps Environmental Operating Principles and stewardship policies and prevent loss and degradation to project lands and water.

WS: \$85,000 – Negotiate and implement a water supply contract with the Mahoning Valley Sanitary District.

OTHER INFORMATION: This project supports approximately 210 jobs, and has prevented more than \$1,386,497,000 in damage since its completion in 1943. Additionally, the lake historically served as a water supply for the Mahoning Valley Sanitary District, and there is interest in renewing a water supply contract. Average recreational visitors from 2005 through 2010 were 552,279 annually.

Division: Great Lakes and Ohio River District: Pittsburgh

Berlin Lake, OH

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Big Sandy Harbor, KY

AUTHORIZATION: River and Harbor Act of 1910 (P.L. 61-264)

LOCATION AND DESCRIPTION: Big Sandy Harbor consists of the lower 9.0 miles of the Big Sandy River, starting at its confluence with the Ohio River. The Big Sandy Harbor requires dredging for portions of the lower 9.0 miles of the Big Sandy River annually.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$35,000

ALLOCATION FOR FY 2011: \$1,600,000

BUDGET FOR FY 2012: M: \$1,655,000 O: \$0 T: \$1,655,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$1,655,000 – Funding provides for routine operations and maintenance for navigation to maintain the minimum project dimensions.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: If the harbor is not dredged annually, it will silt in and commercial traffic would be drastically impacted. This would have a detrimental impact on the commercial and navigation industry. The average tonnage of commodities transported on this waterway exceeds 20,000,000. This is a critical waterway for the region primarily supporting energy related cargo.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Black Rock Channel and Tonawanda Harbor, NY

AUTHORIZATION: River and Harbor Acts of 1888, 1916 (P.L. 63-291), 1919 (P.L. 65-200), 1922 (P.L. 67-362), 1925 (P.L. 68-585), 1935 (P.L. 74-409) & 1945 (P.L. 79-14) and the Flood Control Act of 1954 (P.L. 83-780)

LOCATION AND DESCRIPTION: Black Rock Channel and Tonawanda Harbor is located on Niagara River in the city of Buffalo, Erie County, NY. It provides for vessels of all types a protected waterway around the reefs, rapids, and fast currents that exist in the upstream portions of the Niagara River. The lock and channel permit pleasure craft and commercial vessels to travel between Buffalo Harbor and Tonawanda Harbor. In combination with the New York Erie Canal, they provide vessels an inland water route between Lake Erie and the Atlantic Ocean. Major stakeholders include U.S. Coast Guard, Marathon Ashland Petroleum, NOCO Energy Corp., United Refining Co., and NRG Huntley Power Plant.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$1,284,377

ALLOCATION FOR FY2011: \$1,552,000

BUDGET FOR FY2012: M: \$0 **O:** \$1,324,000 **T:** \$1,324,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2012:

N: \$1,304,000 - Funding provides for routine operations and maintenance for navigation, including lock functions and water control. These funds would improve navigation performance by providing for continued operation and maintenance of the lock to ensure availability for commercial and recreational users. The project condition surveys will determine the condition of the Federal navigation channel. The surveys will be used to plan and schedule maintenance activities and communicate the condition of Federal channels to navigation interests.

FRM: N/A

Rec: \$5,000 – Funding provides for public visitation tracking at Bird Island Pier. These funds will be used to monitor and evaluate the public use of the Bird Island Pier in Buffalo, NY. The data collected will be used to justify future recreation funding to improve public access and recreation features and/or operations and maintenance funding to operate, maintain and repair the navigation structure.

Hydro: N/A

ES: \$15,000 – Funding will provide for preparation of a Historic Properties Management Plan.

WS: N/A

OTHER INFORMATION: The lock provides the only means for deep draft commercial vessels to reach delivery ports on the upper Niagara River; including a major coal power generation plant, fuel storage facilities and a refinery. With 1,261 lockages in 2009, the lock provided safe passage for 1,736 vessels (344 commercial and 1,392 recreational).

Division: Great Lakes and Ohio River

District: Buffalo

Black Rock Channel and
Tonawanda Harbor, NY

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Bluestone Lake, WV

AUTHORIZATION: Section 5 of the Flood Control Act (FCA) of 1936 (P.L. 74-738) as amended by Section 4 of the FCA 1938 (P.L. 75-761) incorporating the Executive Order of the President 7183A, September 12, 1935

LOCATION AND DESCRIPTION: Bluestone Lake is located in Summers County, WV on the New River, a tributary of the Kanawha River; 64.8 miles above the mouth of the New River. The lake is impounded by a concrete gravity dam with a gated spillway. The top length of the dam is 2,048 feet with a maximum height of 165 feet. The dam was completed in December 1947.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$1,081,000

ALLOCATION FOR FY 2011: \$1,700,000

BUDGET FOR FY 2012: M: \$340,000 O: \$1,699,000 T: \$2,039,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: \$1,668,000 – Funding provides for routine operations and maintenance for flood and coastal storm damage reduction, including required inspections to enhance the quality of American life by reducing flood risk to both life and property, providing benefits to individuals, communities, and the national economy; initiating a major rehabilitation report for the electrical components on the dam; and Interim Risk Reduction Measures including reestablishing destroyed alignments and settlement pins, establishing new sawcuts across monoliths, and installing new uplift cell gages

Rec: \$315,000 – Funding provides for routine operations and maintenance to provide recreational opportunities to the public to enhance the quality of American life by providing benefits to individuals, communities, the national economy, and the environment.

Hydro: N/A

ES: \$56,000 – Funding provides for routine operations and maintenance for environmental stewardship to provide management of natural and cultural resources to achieve healthy, sustainable conditions, and foster healthy lands and waters by balancing public uses and needs.

WS: N/A

OTHER INFORMATION: Bluestone Lake has prevented over \$2,000,000,000 in damages over the course of its operation. Project visitation for FY 2010 totaled 1,672,951.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Brookville Lake, IN

AUTHORIZATION: Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Brookville Lake is located in Franklin and Union counties on the East Fork of the Whitewater River. The dam is about ½ mile above Brookville, Indiana. The dam is earthfill, 181 ft high and 2,800 ft long. The project was authorized as a multi-purpose flood control project with additional authorized responsibilities for recreation management, environmental stewardship, water supply and water quality.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$162,000

ALLOCATION FOR FY2011: \$1,141,000

BUDGET FOR FY2012: M: \$3,000 **O:** \$1,152,000 **T:** \$1,155,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2012:

N: \$0 - N/A

FRM: \$1,017,000 – Funding provides for routine operation and maintenance of the dam, outlet works and related infrastructure. These funds support execution of our mission to prevent damages to flood-prone areas, property and communities in the floodway, as well as the destructive impacts of floods on human activities within those areas. Critical dam safety programs and activities are also supported with these funds.

Rec: \$75,000 – Funding provides for routine operation and maintenance of day-use recreation areas, facilities and features. These funds support management of the recreation program and public visitation by providing safe recreation facilities, healthy recreation experiences, and visitor assistance and protection, as well as for real estate functions to support recreation management by other lessees, agencies and partners.

Hydro: \$0 - N/A

ES: \$57,000 – Funding provides for performance of environmental stewardship activities which protects the health, sustainability and integrity of the public lands associated with this project. Activities include natural resource management practices, environmental evaluations and reviews, shoreline protection, cultural resource investigations, water quality control, boundary line inspection, and encroachment resolution.

WS: \$6,000 – Funding provides for performance of annual activities required to support the negotiation, revision and/or coordination of water supply contracts, and addresses local and congressional interests and concerns for water needs affecting public health and welfare.

OTHER INFORMATION: FY2009 flood damages prevented were \$1.76M, FY2009 recreation visits were 643K, and FY2009 visitor expenditures were \$19.3M.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Buckhorn Lake, KY

AUTHORIZATION: Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Buckhorn Lake is located in southeastern Kentucky, 43.3 river miles upstream from Beattyville, KY, where the Middle Fork and the North Fork of the Kentucky River converge. The dam site is 0.5 miles upstream from the community of Buckhorn. The dam is earth and rockfill with gate controlled outlet works as well as a gate controlled spillway and is 160 ft high and 1,020 ft long. The project was authorized as a multi-purpose flood control project with additional authorized responsibilities for recreation management, environmental stewardship, and water quality.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$821,000

ALLOCATION FOR FY2011: \$1,655,000

BUDGET FOR FY2012: M: \$5,000 O: \$1,610,000 T: \$1,615,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2012:

N: \$0 - N/A

FRM: \$1,013,000 – Funding provides for routine operation and maintenance of the dam, outlet works and related infrastructure. These funds support execution of our mission to prevent damages to flood-prone areas, property and communities in the floodway, as well as the destructive impacts of floods on human activities within those areas. Critical dam safety programs and activities are also supported with these funds.

Rec: \$433,000 – Funding provides for routine operation and maintenance of day-use and overnight recreation areas, facilities and features. These funds support management of the recreation program and public visitation by providing safe recreation facilities, healthy recreation experiences, and visitor assistance and protection, as well as for real estate functions to support recreation management by other lessees, agencies and partners.

Hydro: \$0 - N/A

ES: \$169,000 – Funding provides for performance of environmental stewardship activities which protects the health, sustainability and integrity of the public lands associated with this project. Activities include natural resource management practices, environmental evaluations and reviews, shoreline protection, cultural resource investigations, water quality control, boundary line inspection, and encroachment resolution.

WS: \$0 - N/A

OTHER INFORMATION: FY2009 flood damages prevented were \$551K, FY2009 recreation visits were 327K, and FY2009 visitor expenditures were \$9.44M.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Buffalo Harbor, NY

AUTHORIZATION: River and Harbor Acts of 1826, 1866, 1874, 1900, 1910 (P.L. 60-317), 1912 (P.L. 61-425), 1919 (P.L. 65-200), 1930 (P.L. 71-520), 1935 (P.L. 74-409), 1945 (P.L. 79-14), 1960 (P.L. 86-645) and 1962 (P.L. 87-874). WRDA of 1986 (P.L. 99-662), 1988 (P.L. 100-676) and 2007 (P.L. 110-114)

LOCATION AND DESCRIPTION: Buffalo Harbor is a deep draft commercial harbor, located on Lake Erie in the city of Buffalo, Erie County, NY whose authorized depths are 23-30 feet in the outer harbor and 22 feet in the river.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$570,212

ALLOCATION FOR FY2011: \$1,165,000

BUDGET FOR FY2012: M: \$950,000 **O:** \$0 **T:** \$950,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2012:

N: \$950,000 - Funding provides for routine operations and maintenance for navigation including structure repair and snagging and clearing. The structure repair work will repair approximately 120 linear feet of a deteriorated section of the south breakwater and remove isolated snags from the channel thereby improving the condition and reliability of the harbor. These funds will also improve navigation performance by reducing unsafe navigation conditions within the harbor, vessel delays and transportation costs.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: The project provides maintained deep draft navigation channels that facilitate the movement of goods and materials to and from commercial docks on the Buffalo River and Buffalo Outer Harbor. Buffalo Harbor is the 125th leading U.S. port with 1,620,000 tons of material shipped or received in 2008 and is ranked 28th among the Great Lakes Ports. Major stakeholders include the Port of Buffalo, U.S. Coast Guard, General Mills, Exxon-Mobil, Lafarge Cement and Founders Supplies, Incorporated. Bulk commodities that pass through Buffalo Harbor generate approximately \$16,842,000 annually in direct revenue.

Division: Great Lakes and Ohio River

District: Buffalo

Buffalo Harbor, NY

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Burns Waterway Harbor, IN

AUTHORIZATION: Rivers and Harbors Act of 1965 (P.L. 89 -298); Sec 121 of Energy and Water Development Appropriations Act, 2005 (P.L. 108-447)

LOCATION AND DESCRIPTION: Burns Waterway Harbor is in northwestern Indiana on the southern shore of Lake Michigan in Porter County, 28 miles southeast of Chicago Harbor. The project consists of a north breakwater (4,630 feet of rubblemound structure); a west breakwater (1,200 feet of rubblemound structure); an approach channel (400 feet wide and 30 feet deep); Outer Harbor Basin (28 feet deep); and East and West Harbor Arms (each 27 feet deep and 620 feet wide).

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$ 0

ALLOCATION FOR FY 2011: \$171,000

BUDGET FOR FY2012: M: \$ 0 O: \$176,000 T: \$176,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$176,000 – Funds regular operations, navigation channel and structures' inspections, safety signage, and responsiveness to customers.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Burnsville Lake, WV

AUTHORIZATION: Section 4 of Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Burnsville Lake is located in Braxton County, WV on the Little Kanawha River. It is 124.2 miles above its confluence with the Ohio River and approximately 3 miles above the town of Burnsville, WV. The lake is impounded by a rockfill embankment with impervious core dam with a gated spillway. The crest length of the dam is 1,400 feet. The dam was completed in January 1976.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$1,801,000

ALLOCATION FOR FY 2011: \$3,049,000

BUDGET FOR FY 2012: M: \$11,000 O: \$2,684,000 T: \$2,695,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: \$1,625,000 – Funding provides for routine operations and maintenance for flood and coastal storm damage reduction, including required inspections to enhance the quality of American life by reducing flood risk to both life and property, providing benefits to individuals, communities, and the national economy.

Rec: \$959,000 – Funding provides for routine operations and maintenance to provide recreational opportunities to the public to enhance the quality of American life by providing benefits to individuals, communities, the national economy, and the environment.

Hydro: N/A

ES: \$111,000 – Funding provides for routine operations and maintenance for environmental stewardship to provide management of natural and cultural resources to achieve healthy, sustainable conditions, and foster healthy lands and waters by balancing public uses and needs.

WS: N/A

OTHER INFORMATION: Burnsville Lake has prevented over \$144,000,000 in damages over the course of its operation. Project visitation for FY 2010 totaled 654,037.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Caesar Creek Lake, OH

AUTHORIZATION: Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Caesar Creek Lake is located in Warren, Clinton and Greene Counties in Ohio. The dam is earth and rockfill with four saddle dams, outlet works and spillway. The dam is 165 ft high and 2,650 ft long. It is the site of a class "A" visitor center and world renowned for its 450 million year old Ordovician fossil beds exposed by the projects emergency spillway. The project was authorized as a multi-purpose flood control project with additional authorized responsibilities for recreation management, environmental stewardship, water supply and water quality.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$2,738,300

ALLOCATION FOR FY2011: \$1,559,000

BUDGET FOR FY2012: M: \$2,000 **O:** \$1,597,000 **T:** \$1,599,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2012:

N: \$0 - N/A

FRM: \$1,223,000 – Funding provides for routine operation and maintenance of the dam, outlet works and related infrastructure. These funds support execution of our mission to prevent damages to flood-prone areas, property and communities in the floodway, as well as the destructive impacts of floods on human activities within those areas. Critical dam safety programs and activities are also supported with these funds.

Rec: \$282,000 – Funding provides for routine operation and maintenance of day-use recreation areas, facilities and features. These funds support management of the recreation program and public visitation by providing safe recreation facilities, healthy recreation experiences, and visitor assistance and protection, as well as for real estate functions to support recreation management by other lessees, agencies and partners.

Hydro: \$0 - N/A

ES: \$88,000 – Funding provides for performance of environmental stewardship activities which protects the health, sustainability and integrity of the public lands associated with this project. Activities include natural resource management practices, environmental evaluations and reviews, shoreline protection, cultural resource investigations, water quality control, boundary line inspection, and encroachment resolution.

WS: \$6,000 – Funding provides for performance of annual activities required to support the negotiation, revision and/or coordination of water supply contracts, and addresses local and congressional interests and concerns for water needs affecting public health and welfare.

OTHER INFORMATION: FY2009 flood damages prevented were \$27.66M, FY2009 recreation visits were 1.1M, and FY2009 visitor expenditures were \$35.81M.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Cagles Mill Lake, IN

AUTHORIZATION: Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Cagles Mill Lake lies in Owen and Putnam Counties in south-central Indiana near Poland, Indiana, approximately midway between Indianapolis and Terre Haute. The dam is located on Mill Creek, 2.8 miles above its confluence with Big Walnut Creek, forming the Eel River. The dam is earth and rockfill with gate controlled outlet works and uncontrolled open spillway and is 150 ft high and 900 ft long. The project was authorized as a multi-purpose flood control project with additional authorized responsibilities for recreation management, environmental stewardship, and water quality.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$39,600

ALLOCATION FOR FY2011: \$1,030,000

BUDGET FOR FY2012: M: \$14,000 **O:** \$1,073,000 **T:** \$1,087,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2012:

N: \$0 - N/A

FRM: \$1,012,000 – Funding provides for routine operation and maintenance of the dam, outlet works and related infrastructure. These funds support execution of our mission to prevent damages to flood-prone areas, property and communities in the floodway, as well as the destructive impacts of floods on human activities within those areas. Critical dam safety programs and activities are also supported with these funds.

Rec: \$30,000 – Funding provides for routine operation and maintenance of day-use recreation areas, facilities and features. These funds support management of the recreation program and public visitation by providing safe recreation facilities, healthy recreation experiences, and visitor assistance and protection, as well as for real estate functions to support recreation management by other lessees, agencies and partners.

Hydro: \$0 - N/A

ES: \$45,000 – Funding provides for performance of environmental stewardship activities which protects the health, sustainability and integrity of the public lands associated with this project. Activities include natural resource management practices, environmental evaluations and reviews, shoreline protection, cultural resource investigations, water quality control, boundary line inspection, and encroachment resolution.

WS: \$0 - N/A

OTHER INFORMATION: FY2009 flood damages prevented were \$29.69M, FY2009 recreation visits were 393K, and FY2009 visitor expenditures were \$11.66M.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Calumet Harbor and River, IL & IN

AUTHORIZATION: Rivers and Harbors Acts of 1899, 1902, 1935, 1960, 1962, and 1965 (P.L. 89-209)

LOCATION AND DESCRIPTION: Calumet Harbor and River is in northeastern Illinois, on the southwest shore of Lake Michigan in Cook County, 15 miles south of Chicago Harbor, within the corporate limits of the City of Chicago, except for breakwaters, approach channel and an anchorage area which are in Indiana. The project consists of two miles of breakwater (6,714 feet concrete capped timber crib structures, 5,007 feet of stone-filled sheetpile cell structures), an approach channel (3,200 feet wide, 1.8 miles long and 29 feet deep); a harbor channel (3,000 feet wide, two miles long and 28 feet deep); a river navigation channel (8 miles long and 27 feet deep); three turning basins; a confined disposal facility (CDF) with a design storage capacity of 1,400,000 cubic yards; a boat shed facility; and a stone dock.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$ 1,100,000

ALLOCATION FOR FY2011: \$4,238,000

BUDGET FOR FY2012: M: \$ 3,070,000 O: \$913,000 T: \$3,983,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$3,983,000 – \$90,000 funds CDF water quality monitoring to meet State of Illinois CDF permit requirements. \$370,000 completes time critical Dredged Material Management Plan in a major commercial deep draft port with contaminated sediments in all channels. \$355,000 funds regular operations, navigation channel and structures' inspections, safety signs, annual safety inspections, and responsiveness to customers. \$1,088,000 funds primary dredging of high use commercial deep draft narrow river channel to restore port to fully functional width. \$210,000 funds the management (grading) of the existing stored sediment to placement of dredged material to continue. \$1,870,000 funds repair of a 700-ft section of the failing harbor entrance breakwater.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: The 131 stone-filled steel sheetpile cells that form the detached breakwater require annual maintenance to prevent cell failures and the propagation of further cell breaches. This protection of this breakwater is critical for the safe towing of river barges between Calumet Harbor and the 3 Indiana ports, Burns Harbor, Calumet Harbor, and Indiana Harbor. Transportation cost savings from this project are \$783,129.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Carr Creek Lake, KY

AUTHORIZATION: Flood Control Act of 1962 (P.L. 87-874)

LOCATION AND DESCRIPTION: Carr Creek Lake is located in the mountainous region of southeastern Kentucky, about 12 miles south of Hazard, Kentucky. The dam is located on Carr Fork, 8.8 miles above the confluence with the North Fork of the Kentucky River, approximately 16 miles upstream from Hazard. The entire project lies in Knott County. The dam is rock and earthfill, 130 ft high and 720 ft long. The project was authorized as a multi-purpose flood control project with additional authorized responsibilities for recreation management, environmental stewardship, water supply and water quality.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$407,400

ALLOCATION FOR FY2011: \$1,882,000

BUDGET FOR FY2012: M: \$18,000 **O:** \$1,747,000 **T:** \$1,765,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2012:

N: \$0 - N/A

FRM: \$1,084,000 – Funding provides for routine operation and maintenance of the dam, outlet works and related infrastructure. These funds support execution of our mission to prevent damages to flood-prone areas, property and communities in the floodway, as well as the destructive impacts of floods on human activities within those areas. Critical dam safety programs and activities are also supported with these funds.

Rec: \$543,000 – Funding provides for routine operation and maintenance of day-use and overnight recreation areas, facilities and features. These funds support management of the recreation program and public visitation by providing safe recreation facilities, healthy recreation experiences, and visitor assistance and protection, as well as for real estate functions to support recreation management by other lessees, agencies and partners.

Hydro: \$0 - N/A

ES: \$132,000 – Funding provides for performance of environmental stewardship activities which protects the health, sustainability and integrity of the public lands associated with this project. Activities include natural resource management practices, environmental evaluations and reviews, shoreline protection, cultural resource investigations, water quality control, boundary line inspection, and encroachment resolution.

WS: \$6,000 – Funding provides for performance of annual activities required to support the negotiation, revision and/or coordination of water supply contracts, and addresses local and congressional interests and concerns for water needs affecting public health and welfare.

OTHER INFORMATION: FY2009 flood damages prevented were \$573K, FY2009 recreation visits were 609K, and FY2009 visitor expenditures were \$11.86M.

Division: Great Lakes and Ohio River

District: Louisville

Carr Creek Lake, KY

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Cave Run Lake, KY

AUTHORIZATION: Flood Control Act of 1936 & 1938 (P.L. 74-738 & 75-761)

LOCATION AND DESCRIPTION: Cave Run Lake is located in northeastern Kentucky, about 12 miles south of Morehead, Kentucky. The dam site is at mile 173.6 of the Licking River. The dam is rolled earth and rockfill with gate controlled outlet works and is 148 ft high and 2,700 ft long. The lake is confined within Bath, Menifee, Morgan and Rowan Counties and within the proclamation boundary of the Daniel Boone National Forest. The project was authorized as a multi-purpose flood control project with additional authorized responsibilities for recreation management, environmental stewardship, water supply and water quality.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$75,000

ALLOCATION FOR FY2011: \$965,000

BUDGET FOR FY2012: M: \$0 **O:** \$990,000 **T:** \$990,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2012:

N: \$0 - N/A

FRM: \$749,000 – Funding provides for routine operation and daily maintenance of the dam, outlet works and related infrastructure. These funds support execution of our mission to prevent damages to flood-prone areas, property and communities in the floodway, as well as the destructive impacts of floods on human activities within those areas. Critical dam safety programs and activities are also supported with these funds.

Rec: \$145,000 – Funding provides for routine operation and maintenance of day-use recreation areas, facilities and features. These funds support management of the recreation program and public visitation by providing safe recreation facilities, healthy recreation experiences, and visitor assistance and protection, as well as for real estate functions to support recreation management by other lessees, agencies and partners.

Hydro: \$0 - N/A

ES: \$84,000 – Funding provides for performance of environmental stewardship activities which protects the health, sustainability and integrity of the public lands associated with this project. Activities include natural resource management practices, environmental evaluations and reviews, shoreline protection, cultural resource investigations, water quality control, boundary line inspection, and encroachment resolution.

WS: \$12,000 – Funding provides for performance of annual activities required to support the negotiation, revision and/or coordination of water supply contracts, and addresses local and congressional interests and concerns for water needs affecting public health and welfare.

OTHER INFORMATION: FY2009 flood damages prevented were \$4.376M, FY2009 recreation visits were 411K, and FY2009 visitor expenditures were \$8.24M.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Cecil M. Harden Lake, IN

AUTHORIZATION: Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Cecil M. Harden Lake lies in Parke and Putnam Counties near Ferndale, Indiana. It is located in west-central Indiana about 50 miles west of Indianapolis. The dam is located on Big Raccoon Creek approximately 33 miles upstream of its confluence with the Wabash River. The dam is rolled earth with gate controlled outlet works and uncontrolled open spillway and is 119 ft high and 1,860 ft long. The project was authorized as a multi-purpose flood control project with additional authorized responsibilities for recreation management, environmental stewardship, and water quality.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$49,300

ALLOCATION FOR FY2011: \$1,013,000

BUDGET FOR FY2012: M: \$38,000 **O:** \$1,140,000 **T:** \$1,178,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2012:

N: \$0 - N/A

FRM: \$1,078,000 – Funding provides for routine operation and maintenance of the dam, outlet works and related infrastructure. These funds support execution of our mission to prevent damages to flood-prone areas, property and communities in the floodway, as well as the destructive impacts of floods on human activities within those areas. Critical dam safety programs and activities are also supported with these funds.

Rec: \$40,000 – Funding provides for routine operation and maintenance of day-use recreation areas, facilities and features. These funds support management of the recreation program and public visitation by providing safe recreation facilities, healthy recreation experiences, and visitor assistance and protection, as well as for real estate functions to support recreation management by other lessees, agencies and partners.

Hydro: \$0 - N/A

ES: \$60,000 – Funding provides for performance of environmental stewardship activities which protects the health, sustainability and integrity of the public lands associated with this project. Activities include natural resource management practices, environmental evaluations and reviews, shoreline protection, cultural resource investigations, water quality control, boundary line inspection, and encroachment resolution.

WS: \$0 - N/A

OTHER INFORMATION: FY2009 flood damages prevented were \$7.34M, FY2009 recreation visits were 1.1M, and FY2009 visitor expenditures were \$26.35M.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Center Hill Lake, TN

AUTHORIZATION: River and Harbor Act 1946

LOCATION AND DESCRIPTION: Center Hill Lake is located in eastern Middle Tennessee, about 80 miles east of Nashville, TN. The project consists of a combination earth and concrete gravity-type dam, a hydropower plant and a flood storage reservoir with recreation and stewardship areas.

RECOVERY ACT ALLOCATIONS AS OF 31 DECEMBER 2010: \$7,263,467

ALLOCATION FOR FY 2011: \$5,067,000

BUDGET FOR FY 2012: M: \$1,230,000 O \$4,790,000 T: \$6,020,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: \$641,000 - funding provides for routine operations & maintenance at minimum levels. Joint operations are necessary to maintain flood control operation of the river.

Rec: \$1,014,000- funding provides critical health and safety maintenance and services at minimally acceptable levels for designated recreation areas, including access points, overlooks, day use areas and campgrounds.

Hydro: \$4,106,000 - funding provides for routine operations and maintenance for hydroelectric power plant and hydropower joint costs for operation and maintenance of the dam, including replacing generator coolers and piping. Funds would allow power plant and dam to accomplish assigned missions of providing low cost reliable electric power by maintaining optimum availability and peak availability and maintain control of the river.

ES: \$217,000 - funding provides for the management of natural resources including operation, safety, environmental compliance, maintenance of the project boundary line, shoreline management, and cultural resources. These funds will assure sustainability of natural resources in accordance with the Corps Environmental Operating Principles and stewardship policies and prevent loss and degradation of more than 39,000 acres of project lands and water.

WS: \$42,000 - funding provides for vital coordination with all water supply users for continuing major rehabilitation work, to include a determination of annual operations and maintenance costs as well as repair, rehabilitation and replacement costs for ongoing major rehabilitation work.

OTHER INFORMATION: Hydropower plant generates 381,000 MWH of energy annually, which is enough supply for 32,000 homes. Center Hill Lake ranks #25 in the USACE for recreation with 3,160,000 project visits in FY09 with an associated \$71,340,000 in trip spending.

Division: Great Lakes and Ohio River

District: Nashville

Center Hill Lake, TN

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Channels in Lake St. Clair, MI

AUTHORIZATION: Rivers and Harbors Acts of 1886, 1892, 1902, 1919, 1930, 1945, 1956

LOCATION AND DESCRIPTION: Lake St. Clair is located in southeast Michigan with the northwest portion of the lake lying within the United States and the southeast portion of the lake lying within Canada. Lake St. Clair is an expansive shallow basin containing one of the Great Lakes connecting channels running from the mouth of the St. Clair River to the head of the Detroit River. The channels in Lake St. Clair provide for an improved channel 800 feet wide and 14.5 miles long to a depth of 27.5 feet. Maintenance dredging is required in the upper end of the channels on a five to ten year cycle and was last completed in 2009. Dredged material is placed in the Dickinson Island Disposal Facility.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$0

ALLOCATION FOR FY 2011: \$1,117,000

BUDGET FOR FY 2012: M: \$550,000 O: \$172,000 T: \$722,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$722,000 – Funding provides for routine operations and maintenance for navigation, including project condition surveys and dredging by contract to provide minimum functional depth at the most critical reaches of the navigation channel. Annual shoaling can result in a loss of available channel depth between one and two feet which results in increased transportation costs between \$6.9 million and \$23.7 million.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Charlevoix Harbor, MI

AUTHORIZATION: Rivers and Harbors Act of 1876, as amended

LOCATION AND DESCRIPTION: Charlevoix Harbor is located on the east shore of Lake Michigan, 276 miles northeast of Chicago, IL and 75 miles northeast of Frankfort, MI. It is a deep draft commercial harbor with project depths of 18 feet in Lake Michigan and 18 feet in the inner channels to Lake Charlevoix. Charlevoix Harbor has over 4,100 feet of structures including piers and revetments. Approximately one mile of the channel is maintained. Maintenance dredging is typically required on a 10 to 15 year cycle. The harbor was last dredged in 1984. Obstruction removal by Government floating plant is required annually in the entrance channel.

RECOVERY ACT ALLOCATIONS AS OF 31 DECEMBER 2010: \$0

ALLOCATION FOR FY 2011: \$208,000

BUDGET FOR FY 2012: M: \$300,000 O: \$25,000 T: \$325,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$325,000 – Funding provides for routine operations and maintenance for navigation, including project condition surveys and strike removal/minor structure repair by Government floating plant. Commercial vessel operations and/or wave and ice action annually dislodge scour stone from the navigation structures resulting in movement of stones into the adjacent channel which creates unsafe channel conditions for vessel movements.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Cheatham Lock and Dam, TN

AUTHORIZATION: River and Harbor Act 1946

LOCATION AND DESCRIPTION: Cheatham Lake is located in middle Tennessee, 42 river miles downstream of Nashville, TN. The project consists of a 110' x 800' lock, concrete gravity-type dam, hydropower plant and recreation and stewardship areas.

RECOVERY ACT ALLOCATIONS AS OF 31 DECEMBER 2010: \$1,700,040

ALLOCATION FOR FY 2011: \$6,358,000

BUDGET FOR FY 2012: M: \$ 622,000 O: \$5,724,000 T: \$6,346,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$3,098,000 funding provides for routine operations and maintenance for navigation; critical fleet maintenance support service; navigation portion of joints costs for data acquisition for dam safety, FRM operations & Real Estate costs to resolve encroachments. These funds would improve navigation performance by providing maintenance of locks & channels. No alternate navigation route is available. Approx 3,500,000 tons coal shipped thru lock providing 4,700,000,000 KWH to electrical grid. Nashville industries depend on bulk commodity delivery for raw materials.

FRM: N/A.

Rec: \$843,000 - funding provides critical health & safety maintenance and services at minimally acceptable levels for designated recreation areas, including access points, overlooks, day use areas and campgrounds.

Hydro: \$2,184,000 - funding provides for routine operations & maintenance for hydroelectric power plant. These funds would allow power plant to accomplish assigned mission of providing low cost reliable electric power by maintaining high availability and peak availability.

ES: \$203,000 - funding provides for management of natural resources including operation, safety, environmental compliance, maintenance of the project boundary line, shoreline management, & cultural resources. These funds will assure sustainability of natural resources in accordance with the Corps Environmental Operating Principles & stewardship policies and prevent loss & degradation of more than 10,000 acres to project lands & water.

WS: \$18,000 - funding provides for evaluating all new intake requests impacts to navigation. System wide operation of Cumberland River requires maintaining water supply data base.

OTHER INFORMATION: Cheatham Lock processed an average of 9,600,000 tons waterborne commerce annually from 2000 to 2005. Coal and aggregates are dominant commodities. Electric utilities serving the Southeast move coal from mines in Wyoming & Kentucky through Cheatham. Construction companies move cement & aggregates and steel fabricators move iron & steel products into the Cumberland Valley. These & other shippers realize average annual transportation cost savings of more than \$82,000,000. Hydropower plant generates 153,000 MWH of energy annually, enough supply for 13,000 homes. Cheatham Lake ranks #41 in USACE for recreation with 2,100,000 project visits in FY09 with \$43,570,000 in trip spending.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Chicago Harbor, IL

AUTHORIZATION: The Rivers and Harbors Acts of 1870, 1880, 1912, 1919, and 1962 (P.L. 87-874)

LOCATION AND DESCRIPTION: Chicago Harbor is in Northeastern Illinois on the southwest shore of Lake Michigan in Cook County, within the corporate limits of the City of Chicago. The project consists of Chicago Lock facilities, four outer breakwater reaches (2,250 feet of uncapped timber crib structures, 5,321 feet of concrete capped timber crib structures, 3,759 feet of laid-up stone structures, and 1,185 feet of concrete caisson structures) and two inner breakwater reaches (6,882 feet of concrete capped timber crib structures) that protect Navy Pier, Chicago Lock, Chicago Water Filtration Plant, Monroe St. Harbor, Grant Park and other facilities from damage due to storms. It includes an entrance channel (800 ft. wide and 29 feet deep), and an outer harbor area (28 feet deep). The channel to the mouth of the Chicago River is at a depth of 21 feet.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$ 22,580,000

ALLOCATION FOR FY2011: \$2,064,000

BUDGET FOR FY2012: M: \$0 O: \$2,158,000 T: \$2,158,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$2,158,000 - \$1,909,000 funds minimal routine operation of the Chicago Lock, with 100% availability to commercial tow boats and deep draft barges; government, passenger and recreational vessels. \$249,000 funds minimal routine maintenance of the Chicago Lock.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Installation of new lock gates funded under American Recovery and Reinvestment Act will be completed during lock shutdown, November 2010 to April 2011.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Chicago River, IL

AUTHORIZATION: Rivers and Harbors Acts of 1899, 1902, 1907, and 1946 (P.L. 79-525)

LOCATION AND DESCRIPTION: Chicago River is in Northeastern Illinois, in Cook County within the corporate limits of the City of Chicago. The project consists of a river navigation channel that is 2.97 miles long and 21 feet deep from Michigan Avenue to North Avenue. A navigation channel approximately 3.7 miles long and 9 feet deep from North Avenue to Addison Street has also been authorized, but not constructed. The project also includes a perpetual responsibility for water control, and routine and emergency monitoring of the waterways within the Chicago District.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$ 0

ALLOCATION FOR FY2011: \$510,000

BUDGET FOR FY2012: M: \$ 0 O: \$ 523,000 T: \$523,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: \$523,000 – Funding will be used for water control to collect precipitation and streamgage data for use by District teams to perform flood surveillance. River operations are in a major metropolitan area. Water control and streamgage network are essential elements to prevent catastrophic property and life losses in the Metropolitan Chicago area.

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Chicago Sanitary and Ship Canal (CSSC) Aquatic Nuisance Species Dispersal Barriers

AUTHORIZATION: Section 3061, Water Resources Development Act 2007 (P.L. 110-114)

LOCATION AND DESCRIPTION: The Chicago Sanitary and Ship Canal (CSSC) is a man-made waterway that connects the Chicago River and the Des Plaines River, which creates a connection between Lake Michigan and the Mississippi River basin. A system of three barriers is being developed to prevent the migration of aquatic nuisance species between the watersheds. A temporary Demonstration Dispersal Barrier (Barrier I) has been operating in the CSSC since 2002. The first permanent dispersal barrier (Barrier IIA) has been constructed and is also in operation. A second permanent barrier, Barrier IIB is under construction. Upon completion of Barrier IIB, Barrier I will be reconstructed as a permanent facility.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$ 0

ALLOCATION FOR FY2011: \$7,450,000

BUDGET FOR FY 2012: M: \$ 3,565,000 O: \$7,000,000 T: \$10,565,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: N/A

Rec: N/A

Hydro: N/A

ES: \$10,565,000 –\$5,475,000 funds operation of Barriers I, IIA and IIB including safety testing. \$1,525,000 funds Asian Carp location monitoring. \$3,500,000 funds maintenance of barriers I, IIA, IIB and interim solutions to potential bypasses. \$65,000 funds maintenance of screens placed on TJ O'Brien L&D sluice gates as part of the implementation of Efficacy Interim 3 report.

WS: N/A

OTHER INFORMATION: Construction of interim solutions to potential barrier bypasses was completed in October 2010. Installation of screens on TJ O'Brien sluice gates was completed in December 2010.

Division: Great Lakes and Ohio River

District: Chicago

CSSC Barriers, IL

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Chickamauga Lock, TN

AUTHORIZATION: River and Harbor Act 1946

LOCATION AND DESCRIPTION: Chickamauga Lock is located at Mile 471.0 on Tennessee River in Chattanooga, Tennessee. Chickamauga Lock (360' x 60') was completed in 1940. Concrete expansion from alkali aggregate reaction will eventually require lock closure. Aggressive maintenance is required until the new 110' x 600' lock is completed. Lock closure before new lock is in place will shut off 318 miles of river above Chattanooga, including river access to Knoxville and Oak Ridge, TN.

RECOVERY ACT ALLOCATIONS AS OF 31 DECEMBER 2010: \$1,337,000

ALLOCATION FOR FY2011: \$3,500,000

BUDGET FOR FY 2012: M: \$3,098,000 **O:** \$0 **T:** \$3,098,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: 3,098,000 – Keep lock operational: Update Finite Element Analysis, Post Tensioning Blocks 47 and 48, Upstream Guide Wall, Anchor testing, Dive Inspection, Upstream gate anchor design and purchase. Every year's aggressive maintenance work is critical to ensuring success to keep Chickamauga Lock open.

FRM: N/A.

Rec: N/A

Hydro: N/A

ES: N/A.

WS: N/A.

OTHER INFORMATION: Reliability problems from concrete growth is causing lock failure. Existing lock closure before new lock is constructed will shut off 318 miles of river above Chattanooga, including river access to Knoxville and Oak Ridge, TN. Considerable river use for military and rocket booster shipments expected to increase. Oversized nuclear steam generators and components of \$1.7 billion dollar Spallation Neutron Source Program at Oak Ridge National Laboratory moved by water transportation. Boeing Plant shipments have national security impacts. The Tennessee Valley Authority heavily uses barge transportation to service hydroelectric, coal, steam and nuclear plants.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Clarence J. Brown Dam & Reservoir, OH

AUTHORIZATION: Flood Control Act of 1962 (P.L. 87-874)

LOCATION AND DESCRIPTION: Clarence J. Brown Dam & Reservoir is located in the northeastern corner of Clark County near Springfield, Ohio. The project is on Buck Creek, about 7 miles above the confluence with the Mad River, a tributary of the Great Miami River. The dam is earthfill with gated controlled outlet works and uncontrolled open spillway and is 72 ft high and 6,620 ft long. It is the site of a class "B" visitor center. The project was authorized as a multi-purpose flood control project with additional authorized responsibilities for recreation management, environmental stewardship, and water quality.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$94,000

ALLOCATION FOR FY2011: \$1,190,000

BUDGET FOR FY2012: M: \$7,000 **O:** \$1,267,000 **T:** \$1,274,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2012:

N: \$0 - N/A

FRM: \$1,058,000 – Funding provides for routine operation and maintenance of the dam, outlet works and related infrastructure. These funds support execution of our mission to prevent damages to flood-prone areas, property and communities in the floodway, as well as the destructive impacts of floods on human activities within those areas. Critical dam safety programs and activities are also supported with these funds.

Rec: \$138,000 – Funding provides for routine operation and maintenance of day-use recreation areas, facilities and features. These funds support management of the recreation program and public visitation by providing safe recreation facilities, healthy recreation experiences, and visitor assistance and protection, as well as for real estate functions to support recreation management by other lessees, agencies and partners.

Hydro: \$0 - N/A

ES: \$78,000 – Funding provides for performance of environmental stewardship activities which protects the health, sustainability and integrity of the public lands associated with this project. Activities include natural resource management practices, environmental evaluations and reviews, shoreline protection, cultural resource investigations, water quality control, boundary line inspection, and encroachment resolution.

WS: \$0 - N/A

OTHER INFORMATION: FY2009 flood damages prevented were \$490K, FY2009 recreation visits were 1.1M, and FY2009 visitor expenditures were \$24.74M.

Division: Great Lakes and Ohio River

District: Louisville

Clarence J. Brown Dam &
Reservoir, OH

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Cleveland Harbor, OH

AUTHORIZATION: River and Harbor Acts of 1875 (18 Stat 456), 1888 (25 Stat 400), 1903 (P.L. 57-154), 1910 (P.L. 60-317), 1917 (P.L. 64-108), 1935 (P.L. 74-409), 1945 (P.L. 79-14), 1958 (P.L. 85-500), 1960 (P.L. 86-645) and 1962 (P.L. 87-874). Flood Control Acts of 1937 (P.L. 75-406), 1946 (P.L. 79-526) and 1962 (P.L. 87-874). WRDA 1976 (P.L. 94-587) and 1986 (P.L. 99-662)

LOCATION AND DESCRIPTION: Cleveland Harbor is a deep draft commercial harbor located on Lake Erie in the city of Cleveland, OH, whose authorized depths 28 feet in the outer harbor and 23 feet in the river.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$6,910,550

ALLOCATION FOR FY2011: \$10,680,000

BUDGET FOR FY2012: M: \$8,710,000 **O:** \$955,000 **T:** \$9,665,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2012:

N: \$9,665,000 - Funding provides for routine operations and maintenance for navigation including project condition surveys, dredging, structure repair and snagging and clearing, fill management activities/beneficial use activities, engineering and design of new CDF measures, and regional economic data collection. These funds would improve navigation performance by reducing unsafe navigation conditions within the harbor, vessel delays, transportation costs and potential damage to shoreline structures. The project condition surveys will determine the condition of the Federal navigation channel. The dredging will remove approximately 225,000 cubic yards of sediment, improving the availability and reliability of the navigation channels. The structure repair work will repair approximately 120 linear feet of a deteriorated section of the east arrowhead breakwater and remove isolated snags from the channel thereby improving the condition and reliability of the harbor. The CDFs are at or past their original design capacity. The interim and long term measures that will be implemented are necessary to extend capacity until a new long term measure is available.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Cleveland is the 51th leading U.S. port with 10.6M tons of material shipped or received in 2008 and is ranked 7th among the Great Lakes Ports. Engineering, design, and construction of the Dredged Material Management Plan selected alternative and critical interim measures must be completed in FY2011-FY2014 to foster continued dredging.

Division: Great Lakes and Ohio River

District: Buffalo

Cleveland Harbor, OH

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Conemaugh River Lake, PA

AUTHORIZATION: Flood Control Act of 22 June 1936 (P.L. 74-738), as amended by the Flood Control Act of 28 June 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Conemaugh Dam is located on the Conemaugh River, in Indiana and Westmoreland Counties, PA, 7.5 miles upstream from Saltsburg, PA where the Conemaugh River and Loyalhanna Creek join to form the Kiskiminetas River. The reservoir is located in Indiana and Westmoreland Counties, PA. Conemaugh River Lake is a multi-purpose reservoir.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$ 295,949

ALLOCATION FOR FY2011: \$ 1,351,000

BUDGET FOR FY2012: M: \$ 0 **O:** \$ 1,356,000 **T:** \$ 1,356,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: \$1,188,000 - Accomplish flood reduction mission by operation of the dam, water control management, dam safety inspections, required safety related analysis and studies, and real estate outgrant management.

Rec: \$78,000 – Operate and maintain recreation facilities, including a picnic area with two pavilions, playground, visitor information center, nature and hiking trails. Also fulfills Corps requirements for visitor health and safety.

Hydro: N/A

ES: \$90,000 - Accomplish shoreline management, threatened/endangered species surveillance, and cultural resource protection/preservation, invasive species eradication, and protection of natural resources. These funds will assure sustainability of natural resources in accordance with the Corps Environmental Operating Principles and stewardship policies and prevent loss and degradation to project lands and water.

WS: N/A

OTHER INFORMATION: This project supports approximately 48 jobs and has prevented more than \$2,157,007,000 in damages since its completion in 1953. Average recreational visitors from 2005 through 2010 were 101,674 annually.

Division: Great Lakes and Ohio River District: Pittsburgh Conemaugh River Lake, PA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Cordell Hull Dam and Reservoir, TN

AUTHORIZATION: River and Harbor Act 1946

LOCATION AND DESCRIPTION: Cordell Hull Dam & Reservoir is located on the Cumberland River at river mile 313.5. The project consists of an 84' x 400' lock, concrete gravity and earth fill dam, hydropower plant and recreation and stewardship areas.

RECOVERY ACT ALLOCATIONS AS OF 31 DECEMBER 2010: \$5,141,100

ALLOCATION FOR FY 2011: \$6,429,000

BUDGET FOR FY 2012: M: \$272,000 O: \$6,086,000 T: \$6,358,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$645,000 funding provides for routine operations and maintenance at minimum levels for navigation. Joint operations are necessary to maintain flood control operation of the river. Lock must remain operational for maintenance of dam & hydroelectric facility.

FRM: N/A.

Rec: \$2,553,000 funding provides critical health and safety maintenance and services at minimally acceptable levels for designated recreation areas, including access points, overlooks, day use areas and campgrounds; as well as joint costs associated with operation of the dam structure, spillway gates, intake and outlet works for reservoir regulation; removal and disposal of trash and debris on or in vicinity of dam structures; dam safety/failure training and contingency plans, etc.

Hydro: \$2,912,000 funding provides for routine operations and maintenance for hydroelectric power plant and hydropower's part of joint costs for operation and maintenance of the dam. Funds would allow power plant and dam to accomplish assigned missions of providing low cost reliable electric power by maintaining high availability and peak availability and to maintain control of the river.

ES: \$237,000 funding provides for the management of natural resources including operation, safety, environmental compliance, maintenance of the project boundary line, shoreline management, and cultural resources. These funds will assure sustainability of natural resources in accordance with the Corps Environmental Operating Principles and stewardship policies and prevent loss and degradation of more than 25,000 acres of project lands and water.

WS: \$11,000 funding provides for evaluating all new intake requests' impacts to navigation. System wide operation of Cumberland River requires maintaining a water supply database.

OTHER INFORMATION: Hydropower plant generates 363,000 MWH of energy annually, which is enough supply for 30,250 homes. Cordell Hull Reservoir ranks #34 in USACE for recreation with 2,700,000 project visits in FY09 with an associated \$54,570,000 in trip spending.

Division: Great Lakes and Ohio River

District: Nashville

Cordell Hull Dam and Reservoir, TN

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Crooked Creek Lake, PA

AUTHORIZATION: Flood Control Act of 22 June 1936 (P.L. 74-738), as amended by the Flood Control Act of 28 June 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Crooked Creek Dam is located on Crooked Creek, in Armstrong County, PA, 7.2 miles above the junction of the creek with the Allegheny River near Ford City, PA. Crooked Creek Lake is a multi-purpose reservoir.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$ 381,860

ALLOCATION FOR FY2011: \$ 2,039,000

BUDGET FOR FY2012: M: \$ 289,000 O: \$ 1,797,000 T: \$ 2,086,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: \$1,726,000 - Accomplish flood reduction mission by operation of the dam, water control management, dam safety inspections, required safety related analysis and studies, and real estate outgrant management. Repair two service gates to restore structural integrity of gate seals and ensure safe and reliable use of gates.

Rec: \$335,000 – Operate and maintain recreation facilities, including tent, trailer, and group camping, swimming, sheltered picnicking, hiking, snowmobile, and horseback riding trails. One boat launch ramp for fishing and water skiing. Also fulfills Corps requirements for visitor health and safety.

Hydro: N/A

ES: \$25,000 - Accomplish shoreline management, threatened/endangered species, surveillance, cultural resource protection/preservation, invasive species eradication, and protection of natural resources. These funds will assure sustainability of natural resources in accordance with the Corps Environmental Operating Principles and stewardship policies and prevent loss and degradation to project lands and water.

WS: N/A

OTHER INFORMATION: This project supports approximately 110 jobs, and has prevented more than \$539,629,000 in damage since its completion in 1940. In addition to flood control, Crooked Creek also stores water and releases it downstream during dry periods to improve water quality and quantity for domestic and industrial use, navigation, recreation, aesthetics and aquatic life. Average recreational visitors from 2005 through 2010 were 329,877 annually.

Division: Great Lakes and Ohio River District: Pittsburgh Crooked Creek Lake, PA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Dale Hollow Lake, Tennessee

AUTHORIZATION: River and Harbor Act 1946

LOCATION AND DESCRIPTION: Dale Hollow Lake, TN project is located in northeastern middle Tennessee, near Celina, TN. The project consists of a concrete gravity dam, a hydropower plant and a flood storage reservoir with recreation and stewardship areas.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$3,489,218

ALLOCATION FOR FY 2011: \$6,219,000

BUDGET FOR FY 2012: M: \$243,000 O: \$5,682,000 T: \$5,925,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: \$515,000 - Funding provides for routine operations & maintenance at minimum levels. Joint operations are necessary to maintain flood control operation of the river.

Rec: \$1,706,000 - Funding provides critical health and safety maintenance and services at minimally acceptable levels for designated recreation areas, including access points, overlooks, day use areas and campgrounds.

Hydro: \$3,443,000 - Funding provides for routine operations and maintenance for hydroelectric power plant and hydropower's part of joint costs for operation and maintenance of the dam. Funds allow power plant and dam to accomplish assigned missions of providing low cost reliable electric power by maintaining high availability and peak availability and to maintain control of the river.

ES: \$232,000 - Funding provides for the management of natural resources including operation, safety, environmental compliance, maintenance of the project boundary line, and cultural resources. These funds will assure sustainability of natural resources in accordance with the Corps Environmental Operating Principles and stewardship policies and prevent loss and degradation of more than 52,000 acres of project lands and water.

WS: \$29,000 - Funding provides for evaluating all new intake requests. System wide operation of Cumberland River requires maintaining a water supply database.

OTHER INFORMATION: Hydropower plant generates 126,000 MWH of energy annually, which is enough supply for 10,500 homes. Dale Hollow Lake ranks #23 in USACE for recreation with 3,230,000 project visits in FY09 with an associated \$77,150,000 in trip spending.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Deer Creek Lake, OH

AUTHORIZATION: Section 4 of Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Deer Creek Lake is located in Pickaway County, OH, on Deer Creek which is a tributary of the Scioto River, 21 miles above the mouth of Deer Creek and 105.8 miles above the mouth of the Scioto River. The lake is approximately 7 miles south-southwest of the town of Mount Sterling. Deer Creek Lake is impounded by a rolled earthfill dam with concrete gravity channel section that has a maximum height of 93 feet and a total crest length of 3,800 feet. The dam was completed in 1968.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$547,000

ALLOCATION FOR FY 2011: \$1,323,000

BUDGET FOR FY 2012: M: \$0 O: \$1,275,000 T: \$1,275,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: \$966,000 – Funding provides for routine operations and maintenance for flood and coastal storm damage reduction to enhance the quality of American life by reducing flood risk to both life and property, providing benefits to individuals, communities, and the national economy.

Rec: \$257,000 – Funding provides for routine operations and maintenance to provide recreational opportunities to the public to enhance the quality of American life by providing benefits to individuals, communities, the national economy, and the environment.

Hydro: N/A

ES: \$52,000 – Funding provides for routine operations and maintenance for environmental stewardship to provide management of natural and cultural resources to achieve healthy, sustainable conditions, and foster healthy lands and waters by balancing public uses and needs.

WS: N/A

OTHER INFORMATION: Deer Creek Lake has prevented over \$75,000,000 in damages over the course of its operation. Project visitation for FY 2010 totaled 4,105,100.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Delaware Lake, OH

AUTHORIZATION: Section 4 of Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Delaware Lake is located in central OH, situated along U.S. Route 23 and within Delaware, Marion, and Morrow Counties. Delaware Lake is located on the Olentangy River, a tributary of the Scioto River, 32 miles above the mouth of the Olentangy River, 164.4 miles above the mouth of the Scioto River, and 3 miles above Delaware city limits. The project was completed in July 1948, consists of an 18,600 foot long and 92 foot high embankment dam with a gated control concrete gravity spillway, including a 6,500 foot long embankment levee with two pump station works to protect the Village of Waldo and vicinity located 9 miles upstream from the dam. The outlet works consist of five gated tunnels which discharge into a concrete stilling basin. The spillway consists of six tainter gates and hoist machinery that operates to release excess storage to prevent overtopping and dam failure.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$1,908,000

ALLOCATION FOR FY 2011: \$1,362,000

BUDGET FOR FY 2012: M: \$993,000 O: \$1,370,000 T: \$2,363,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: \$2,100,000 – Funding provides for routine operations and maintenance for flood and coastal storm damage reduction, including required inspections to enhance the quality of American life by reducing flood risk to both life and property, providing benefits to individuals, communities, and the national economy; and Interim Risk Reduction Measures including adding foundation drains and uplift cells, testing the crest gate anchors, performing a dam safety exercise, sealing an abandoned relief well, sealing both approach slab joints to the spillway structure, cleaning the stilling basin and apron drains, and removing trees.

Rec: \$231,000 – Funding provides for routine operations and maintenance to provide recreational opportunities to the public to enhance the quality of American life by providing benefits to individuals, communities, the national economy, and the environment.

Hydro: N/A

ES: \$32,000 – Funding provides for routine operations and maintenance for environmental stewardship to provide management of natural and cultural resources to achieve healthy, sustainable conditions, and foster healthy lands and waters by balancing public uses and needs.

WS: N/A

OTHER INFORMATION: Delaware Lake has prevented over \$133,000,000 in damages over the course of its operation. Project visitation for FY 2010 totaled 839,422.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Detroit River, MI

AUTHORIZATION: Rivers and Harbors Act of 1902

LOCATION AND DESCRIPTION: The Detroit River is one of the Great Lakes connecting channels, flowing south from Lake St. Clair to Lake Erie. A total of 76 miles of Federal channels are maintained, including up-bound and down-bound lanes. It also contains various water level and compensating dikes and structures. This river requires maintenance dredging on a one to two year cycle and was last dredged in 2009. The project also requires obstruction removal in the hard bottom channels on a yearly basis.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$0

ALLOCATION FOR FY 2011: \$5,218,000

BUDGET FOR FY 2012: M: \$4,794,000 O: \$1,023,000 T: \$5,817,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$5,777,000 – Funding provides for routine operations and maintenance for navigation, including project condition surveys, strike removal by Government floating plant, and maintenance dredging by contract to provide minimum functional depth at the most critical portions of this Federal channel. Annual shoaling can result in a loss of available channel depth between one and two feet which results in increased transportation costs of between \$7 million and \$25 million. Commercial vessel operations and/or wave and ice action annually result in movement of adjacent stone or dislodging of rock from channel bottoms that result in unsafe channel conditions for vessel movements.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: \$40,000 – Funding provides for maintaining compliance with the National Historic Preservation Act and with the Historic Management Plan.

WS: N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Dewey Lake, KY

AUTHORIZATION: Section 4 of Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Dewey Lake is located in Floyd County, KY, on Johns Creek of the Levisa Fork, a tributary of the Big Sandy River. It is 5.4 miles above the mouth of Johns Creek and 79.4 miles above the mouth of the Big Sandy River. The lake is impounded by a rolled earth fill dam with an uncontrolled spillway. The crest length of the dam is 913 feet. The dam was completed in July 1949.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$365,000

ALLOCATION FOR FY 2011: \$1,762,000

BUDGET FOR FY 2012: M: \$24,000 O: \$1,768,000 T: \$1,792,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: \$1,130,000 – Funding provides for routine operations and maintenance for flood and coastal storm damage reduction to enhance the quality of American life by reducing flood risk to both life and property, providing benefits to individuals, communities, and the national economy.

Rec: \$610,000 – Funding provides for routine operations and maintenance to provide recreational opportunities to the public to enhance the quality of American life by providing benefits to individuals, communities, the national economy, and the environment.

Hydro: N/A

ES: \$52,000 – Funding provides for routine operations and maintenance for environmental stewardship to provide management of natural and cultural resources to achieve healthy, sustainable conditions, and foster healthy lands and waters by balancing public uses and needs.

WS: N/A

OTHER INFORMATION: Dewey Lake has prevented over \$91,000,000 in damages over the course of its operation. Project visitation for FY 2010 totaled 1,328,011.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Dillon Lake, OH

AUTHORIZATION: Section 4 of the Flood Control Act (FCA) of 1938 (P.L. 75-761) as amended by Section 4 of FCA 1939 (P.L. 76-396)

LOCATION AND DESCRIPTION: Dillon Lake is located in Muskingum County, OH on the Licking River, a tributary of the Muskingum River. It is 5.8 miles above the mouth of the Licking River and 83.4 miles above the mouth of the Muskingum River. The lake is impounded by a rolled earth fill dam with impervious core and an uncontrolled partially concrete lined spillway. The top length of the dam is 1,400 feet. The dam was completed in July 1959.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$307,000

ALLOCATION FOR FY 2011: \$1,260,000

BUDGET FOR FY 2012: M: \$10,000 O: \$1,344,000 T: \$1,354,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: \$1,194,000 – Funding provides for routine operations and maintenance for flood and coastal storm damage reduction, including required inspections to enhance the quality of American life by reducing flood risk to both life and property, providing benefits to individuals, communities, and the national economy.

Rec: \$126,000 – Funding provides for routine operations and maintenance to provide recreational opportunities to the public to enhance the quality of American life by providing benefits to individuals, communities, the national economy, and the environment.

Hydro: N/A

ES: \$34,000 – Funding provides for routine operations and maintenance for environmental stewardship to provide management of natural and cultural resources to achieve healthy, sustainable conditions, and foster healthy lands and waters by balancing public uses and needs.

WS: N/A

OTHER INFORMATION: Dillon Lake has prevented over \$640,000,000 in damages over the course of its operation. Project visitation for FY 2010 totaled 1,151,454.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Duluth-Superior Harbor, MN, WI

AUTHORIZATION: Rivers and Harbors Act of 1896

LOCATION AND DESCRIPTION: Located on the western end of Lake Superior. Duluth-Superior Harbor is a deep draft commercial harbor with over 18 miles of maintained channel. Maintenance dredging is required on an annual basis, with the project last dredged in 2009. Dredged material is currently placed in the Erie Pier Confined Disposal Facility (CDF). The project also includes over 10,000 feet of structures including breakwaters, piers and revetments.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$0

ALLOCATION FOR FY 2011: \$7,237,000

BUDGET FOR FY 2012: M: \$6,126,000 O: \$1,455,000 T: \$7,581,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$7,047,000 – Funding provides for routine operations and maintenance for navigation, including project condition surveys, navigation breakwater repairs by Government floating plant, maintenance dredging by contract to provide minimum functional depth at the most critical portions of this Federal channel, critical fill management activities at the Erie Pier CDF, continuing efforts on development of dredged material management plans, and coastal structure asset management/risk assessment efforts. Funding ensures fully functional channels are maintained within the harbor, and that adequate capacity will be available at Erie Pier CDF for annual dredged material disposal. Duluth-Superior harbor handles over 45 million tons annually, and a loss of two feet of channel depth due to annual shoaling or deteriorated wave climate can result in increased transportation costs up to \$6.9 million.

FRM: N/A

Rec: \$519,000 – Funding provides for routine operation and maintenance of the project's Class A visitor center and Lake Superior maritime museum. These funds provide for operation of the visitor center and park that has annual visitation in excess of 275,000 people and provides educational opportunities related to commercial navigation and overall Corps of Engineers missions.

Hydro: N/A

ES: \$15,000 – Funding provides for annual activities associated with compliance with State and Federal historic preservation requirements, including investigation and coordination of operation and maintenance activities and document preservation.

WS: N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: East Branch Clarion River Lake, PA

AUTHORIZATION: Flood Control Acts of 1938 (P.L. 75-761) and 1944 (P.L. 78-534)

LOCATION AND DESCRIPTION: East Branch Dam is on the East Branch of the Clarion River, 7.5 miles upstream from its junction with the West Branch of the Clarion River at Johnsonburg, PA. The reservoir is located entirely in Elk County PA. East Branch Clarion River Lake is a multi-purpose reservoir.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$ 211,209

ALLOCATION FOR FY2011: \$ 1,671,000

BUDGET FOR FY2012: M: \$ 40,000 O: \$ 1,620,000 T: \$ 1,660,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: \$1,465,000 – Accomplish flood reduction mission by operation of the dam, water control management, dam safety inspections, required safety related analysis and studies, and real estate outgrant management.

Rec: \$181,000 – Operate and maintain recreation facilities for camping, picnicking on interpretive trail, and boating access for fishing and water skiing. Also fulfills Corps requirements for visitor health and safety.

Hydro: N/A

ES: \$14,000 – Accomplish shoreline management, threatened/endangered species surveillance, cultural resource protection/preservation, invasive species eradication, and protection of natural resources. These funds will assure sustainability of natural resources in accordance with the Corps Environmental Operating Principles and stewardship policies and prevent loss and degradation to project lands and water.

WS: N/A

OTHER INFORMATION: This project supports approximately 94 jobs and has prevented more than \$85,376,000 in damages since its completion in 1951. Average recreational visitors from 2005 through 2010 were 210,331 annually.

Division: Great Lakes and Ohio River

District: Pittsburgh

East Branch Clarion River, Lake, PA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: East Lynn Lake, WV

AUTHORIZATION: Section 4 of Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: East Lynn Lake is located on the East Fork of Twelvepole Creek, 10 miles above the mouth of East Fork and 42 miles above the mouth of Twelvepole Creek. The lake is impounded by a rolled earth fill dam with an uncontrolled saddle spillway. The top length of the dam is 652 feet. The dam was completed in April 1971.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$1,607,000

ALLOCATION FOR FY 2011: \$2,215,000

BUDGET FOR FY 2012: M: \$45,000 O: \$2,071,000 T: \$2,116,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: \$1,357,000 – Funding provides for routine operations and maintenance for flood and coastal storm damage reduction, including required inspections to enhance the quality of American life by reducing flood risk to both life and property, providing benefits to individuals, communities, and the national economy.

Rec: \$651,000 – Funding provides for routine operations and maintenance to provide recreational opportunities to the public to enhance the quality of American life by providing benefits to individuals, communities, the national economy, and the environment.

Hydro: N/A

ES: \$108,000 – Funding provides for routine operations and maintenance for environmental stewardship to provide management of natural and cultural resources to achieve healthy, sustainable conditions, and foster healthy lands and waters by balancing public uses and needs.

WS: N/A

OTHER INFORMATION: East Lynn Lake has prevented over \$84,000,000 in damages over the course of its operation. Project visitation for FY 2010 totaled 443,994.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Elkins, WV

AUTHORIZATION: Section 4 of the Flood Control Act of 1938 (P.L 75-761)

LOCATION AND DESCRIPTION: The project is located on the Tygart River at Elkins, Randolph County, West Virginia. Elkins, WV is a local flood protection project.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$ 0

ALLOCATION FOR FY2011: \$ 15,000

BUDGET FOR FY2012: M: \$ 0 O: \$ 60,000 T: \$ 60,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: \$60,000 - Assure safety, structure, integrity and operational adequacy through inspection of the project.

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: This project has prevented more than \$23,936,000 in damage since its completion in 1949.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Fairport Harbor, OH

AUTHORIZATION: River & Harbor Acts of 1825, 1896, 1905, 1919, 1927, 1930, 1935, 1937 and 1946

LOCATION AND DESCRIPTION: Fairport Harbor is a deep draft commercial harbor located on Lake Erie in the city of Fairport, Lake County, OH, whose authorized depths are 25 feet in the Outer Harbor and 21-24 feet in the river.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$919,868

ALLOCATION FOR FY2011: \$1,572,000

BUDGET FOR FY2012: M: \$1,000,000 O: \$0 T: \$1,000,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2012:

N: \$1,000,000 - Funding provides for routine operations and maintenance for navigation including structure repair and snagging and clearing. The structure repair work will repair approximately 120 linear feet of a deteriorated section of the east breakwater and remove isolated snags from the channel thereby improving the condition and reliability of the harbor. These funds will also improve navigation performance by reducing unsafe navigation conditions within the harbor, vessel delays and transportation costs.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Fairport Harbor is the 118th leading U.S. port with 1.8M tons of material shipped or received in 2008. It is ranked 27th among the Great Lakes ports. The project provides maintained deep draft navigation channels that facilitate the movement of goods and materials to and from commercial docks. Major stakeholders include the Fairport Harbor Port Authority, U.S. Coast Guard, Carmuse Lime, Morton International, Incorporated, Northeastern Road Improvement Company, Osborne Concrete & Stone, and Sidley Stone Products. Bulk commodities that pass through Fairport Harbor generate approximately \$34,195,000 annually in direct revenue.

Division: Great Lakes and Ohio River

District: Buffalo

Fairport Harbor, OH

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Falls of the Ohio National Wildlife Conservation Area, IN & KY

AUTHORIZATION: Act of December 29, 1981, established the 1,000-acre Falls of the Ohio National Wildlife Conservation Area, at a cost not to exceed \$300,000. (H.R. 2241, PL 97-137, Title II, 95 Stat 1710). Act of November 28, 1990, modified PL 97-137 by authorizing an interpretive center at Falls of the Ohio National Wildlife Conservation Area, at an estimated total cost of \$3,200,000. (P.L. 101-640, 101st Cong., 2nd Session.)

LOCATION AND DESCRIPTION: Falls of the Ohio National Wildlife Conservation Area is located in Clark and Floyd Counties in Indiana and Jefferson County (Louisville) in Kentucky. It consists of the land area in and along the Ohio River in the states of Indiana and Kentucky. Lands lie along the shoreline of the Ohio River, as well as within the river in areas known as Sand and Shippingport Islands. Existing within the area is part of the Ohio River and the Falls of the Ohio. The "Falls" is in fact not a falls but a series of rapids. The area contains exposed limestone fossil beds during normal and low river flows. These fossil beds are the only location in the entire 981 mile length of the Ohio River where bedrock is exposed.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$0

ALLOCATION FOR FY2011: \$0

BUDGET FOR FY2012: M: \$0 **O:** \$21,000 **T:** \$21,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2012:

N: \$0 - N/A

FRM: \$0 - N/A

Rec: \$0 - N/A

Hydro: \$0 - N/A

ES: \$21,000 – Funding provides for performance of environmental stewardship activities which protects the health, sustainability and integrity of the public lands associated with this project. Activities include natural resource management practices, environmental evaluations and reviews, shoreline protection, cultural resource investigations, water quality control, boundary line inspection, and encroachment resolution.

WS: \$0 - N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Fishtrap Lake, KY

AUTHORIZATION: Section 4 of Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Fishtrap Lake is located in Pike County, KY, on the Levisa Fork of the Big Sandy River. It is 103.3 miles above the mouth of the Levisa Fork and 130.1 miles above the mouth of the Big Sandy River. The lake is impounded by a rolled rock dam with impervious core and a controlled spillway. The top length of the dam is 1,100 feet. The dam was completed in February 1969.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$1,423,000

ALLOCATION FOR FY 2011: \$1,942,000

BUDGET FOR FY 2012: M: \$14,000 O: \$1,955,000 T: \$1,969,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: \$1,479,000 – Funding provides for routine operations and maintenance for flood and coastal storm damage reduction, including required inspections to enhance the quality of American life by reducing flood risk to both life and property, providing benefits to individuals, communities, and the national economy.

Rec: \$445,000 –Funding provides for routine operations and maintenance to provide recreational opportunities to the public to enhance the quality of American life by providing benefits to individuals, communities, the national economy, and the environment.

Hydro: N/A

ES: \$45,000 – Funding provides for routine operations and maintenance for environmental stewardship to provide management of natural and cultural resources to achieve healthy, sustainable conditions, and foster healthy lands and waters by balancing public uses and needs.

WS: N/A

OTHER INFORMATION: Fishtrap Lake has prevented over \$605,000,000 in damages over the course of its operation. Project visitation for FY 2010 totaled 486,286.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Fox River, WI

AUTHORIZATION: Rivers and Harbors Act of 1886 (24 Stat. 310), as amended: and Section 332, WRDA 1992 (PL 102-580)

LOCATION AND DESCRIPTION: The project is located on the Lower Fox River from Lake Winnebago to Green Bay, Wisconsin. The project includes nine dams consisting of concrete gravity spillways and tainter gate structures operated by lift machinery. The project is primarily operated for flood control.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$10,076,836

ALLOCATION FOR FY 2011: \$2,402,000

BUDGET FOR FY 2012: M: \$1,100,000 O: \$1,789,000 T: \$2,889,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: \$2,830,000 – Funding provides for collection of water level data, routine operation of the dams to regulate pools for multiple uses (flood risk management, and supply of water to private hydropower, paper mills and municipal uses), and critical maintenance actions including replacement of deteriorated dam service walkways. Without continued dam operations the risk of flooding increases, the State owned locks cannot operate and power plants/paper mills would lose pool and not be able to function. There are a total of 24 paper and pulp plants located along the Fox River that draw water from the river for use in processing and power production.

Rec: N/A

Hydro: N/A

ES: \$59,000 – Funding provides for annual activities that are associated with compliance with State and Federal historic preservation requirements, including investigation and coordination of operation and maintenance activities and document preservation.

WS: N/A

OTHER INFORMATION: The project originally included 17 navigation locks which were transferred to the State of Wisconsin in FY2004. The Fox River Navigational System Authority is the state entity responsible for restoration, maintenance and operation of the transferred Fox River lock system. A Memorandum of Agreement (MOA) signed in 2000 between the Department of the Army and the State of Wisconsin for transfer of the locks provides for the Government to provide funding to the State to match State funding for repairs to the locks. As of December 2010, a balance of \$2,102,879 remained to be provided to the State (amount identified in the MOA indexed to current cost levels less funding provided to date).

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Grand Haven Harbor and Grand River, MI

AUTHORIZATION: Rivers and Harbors Act of 1866, as amended

LOCATION AND DESCRIPTION: The harbor is located on the east shore of Lake Michigan, 108 miles northeast of Chicago, IL, and 23 miles north of Holland, MI at the mouth of the Grand River. Grand Haven Harbor is a deep draft commercial port with the primary commodities being coal and aggregates. Approximately 40,000 cubic yards are dredged from the outer channel each year while the inner channel requires dredging on a two to four year cycle, and was last dredged in 2009. The outer harbor material is placed on the beach and the Inner harbor material requires upland placement.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$2,778,768

ALLOCATION FOR FY 2011: \$722,000

BUDGET FOR FY 2012: M: \$525,000 **O:** \$218,000 **T:** \$743,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$733,000 – Funding provides for routine operations and maintenance for navigation; project condition surveys; and maintenance dredging by contract to provide minimum function at the most critical portions of this Federal channel. These funds will be used to maintain this important Great Lakes port. Loss of available channel depth due to annual shoaling typically averages between four and five feet which results in increased transportation costs of between \$3.6 million and \$5.1million.

FRM: N/A

Rec: \$10,000 – Funding provides for improved monitoring of project use and enhancing access and educational opportunities for project visitors.

Hydro: N/A

ES: N/A.

WS: N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Grayson Lake, KY

AUTHORIZATION: Section 203 of Flood Control Act of 1960 (P.L. 86-645)

LOCATION AND DESCRIPTION: Grayson Lake is located in Carter County KY, on the Little Sandy River, 51.2 miles above the mouth of the stream. The lake is impounded by an earthen dam with a central impervious core, with a maximum height of 120 feet, and a top length of 1,460 feet. The spillway is an uncontrolled, broad crested, saddle spillway at the left abutment. The dam was completed in 1968.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$629,000

ALLOCATION FOR FY 2011: \$1,434,000

BUDGET FOR FY 2012: M: \$7,000 O: \$1,508,000 T: \$1,515,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: \$1,021,000 – Funding provides for routine operations and maintenance for flood and coastal storm damage reduction to enhance the quality of American life by reducing flood risk to both life and property, providing benefits to individuals, communities, and the national economy.

Rec: \$436,000 – Funding provides for routine operations and maintenance to provide recreational opportunities to the public to enhance the quality of American life by providing benefits to individuals, communities, the national economy, and the environment.

Hydro: N/A

ES: \$27,000 – Funding provides for routine operations and maintenance for environmental stewardship to provide management of natural and cultural resources to achieve healthy, sustainable conditions, and foster healthy lands and waters by balancing public uses and needs.

WS: \$31,000 – Funding provides for routine operations and maintenance for water supply to provide an estimated 1.5 million gallons per day of water supply for the health, safety and economy of approximately 10,000 citizens in Carter and Elliott Counties, KY.

OTHER INFORMATION: Grayson Lake has prevented over \$109,000,000 in damages over the course of its operation. Project visitation for FY 2010 totaled 1,262,443.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Green & Barren Rivers, KY

AUTHORIZATION: Rivers & Harbors Appropriation Act of 1888; 1909 Act (P.L. 60-317)

LOCATION AND DESCRIPTION: Six lock and dams on the Green River and one on the Barren River were constructed under the project authority, however only two remain operational for navigation. Green River Lock and Dam No. 1 is located on the Green River at river mile 9.1, at Spotsville, Kentucky. The project consists of a fixed crest dam, which is navigable at high river stages, and a single 84' x 600' lock chamber. Green River Lock and Dam No. 2 is located on the Green River at river mile 63.1, at Calhoun, Kentucky. The project consists of a fixed crest dam, which is navigable at high river stages, and a single 84' x 600' lock chamber.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$583,500

ALLOCATION FOR FY2011: \$2,100,000

BUDGET FOR FY2012: M: \$0 O: \$2,280,000 T: \$2,280,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2012:

N: \$2,264,000 – Funding provides for basic operation and daily maintenance of the two Green River projects.

FRM: \$0 - N/A

Rec: \$0 - N/A

Hydro: \$0 - N/A

ES: \$16,000 – Funding provides for the performance of the water quality analysis and endangered species studies required for navigable waters.

WS: \$0 - N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Green Bay Harbor, WI

AUTHORIZATION: Rivers and Harbors Act of 1866

LOCATION AND DESCRIPTION: Located at the mouth of the Fox River at the head of Green Bay in Lake Michigan. Green Bay Harbor is a deep draft commercial harbor of over 14 miles of maintained channel. Dredged material is currently placed in the Bay Port disposal facility under an agreement with the Brown County Port Authority, since the Green Bay Confined Disposal Facility at Renard Island is currently at capacity.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$0

ALLOCATION FOR FY 2011: \$2,698,000

BUDGET FOR FY 2012: M: \$3,045,000 **O:** \$361,000 **T:** \$3,406,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$3,406,000 – Funding provides for routine operations and maintenance for navigation, including project condition surveys and maintenance dredging by contract to provide minimum functional depth at the most critical portions of this Federal channel. Shoaling results in a need to remove upwards of 190,000 cubic yards of material annually in order to maintain channel functionality and avoid increased transportation costs.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Green River Lake, KY

AUTHORIZATION: Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Green River Lake lies in Taylor and Adair counties. The lake is located in south central Kentucky. It is approximately 90 miles south-southeast of Louisville and about 8 miles south of Campbellsville. The dam site is at mile 305.7 on Green River. The dam is earth and rockfill with gate controlled outlet works and uncontrolled open spillway and is 143 ft high and 2,350 ft long. The project also includes an earth filled dike, 105 ft high and 1,952 ft long. It is the site of a class "B" visitor center. The project was authorized as a multi-purpose flood control project with additional authorized responsibilities for recreation management, environmental stewardship, water supply and water quality.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$2,738,300

ALLOCATION FOR FY2011: \$2,242,000

BUDGET FOR FY2012: M: \$15,000 **O:** \$2,207,000 **T:** \$2,222,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2012:

N: \$0 - N/A

FRM: \$1,462,000 – Funding provides for routine operation and maintenance of the dam, outlet works and related infrastructure. These funds support execution of our mission to prevent damages to flood-prone areas, property and communities in the floodway, as well as the destructive impacts of floods on human activities within those areas. Critical dam safety programs and activities are also supported with these funds.

Rec: \$596,000 – Funding provides for routine operation and maintenance of day-use and overnight recreation areas, facilities and features. These funds support management of the recreation program and public visitation by providing safe recreation facilities, healthy recreation experiences, and visitor assistance and protection, as well as for real estate functions to support recreation management by other lessees, agencies and partners.

Hydro: \$0 - N/A

ES: \$152,000 – Funding provides for performance of environmental stewardship activities which protects the health, sustainability and integrity of the public lands associated with this project. Activities include natural resource management practices, environmental evaluations and reviews, shoreline protection, cultural resource investigations, water quality control, boundary line inspection, and encroachment resolution.

WS: \$12,000 – Funding provides for performance of annual activities required to support the negotiation, revision and/or coordination of water supply contracts, and addresses local and congressional interests and concerns for water needs affecting public health and welfare.

OTHER INFORMATION: FY2009 flood damages prevented were \$6.61M, FY2009 recreation visits were 1.3M, and FY2009 visitor expenditures were \$38.12M.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Holland Harbor, MI

AUTHORIZATION: Rivers and Harbors Act of 1852

LOCATION AND DESCRIPTION: Holland Harbor is located on the east shore of Lake Michigan 95 miles northeast of Chicago, IL and 23 miles south of Grand Haven, MI. It is a deep draft commercial harbor with project depths of 23 feet in the entrance and 21 feet in the inner channel and Lake Macatawa. There are approximately 5,500 feet of structures including breakwaters, piers, and revetments and approximately six miles of maintained channel. Maintenance dredging is required on an annual basis, with the harbor last dredged in 2009. Outer harbor dredged material is used for shoreline nourishment.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$115,930

ALLOCATION FOR FY 2011: \$655,000

BUDGET FOR FY 2012: M: \$0 **O:** \$10,000 **T:** \$10,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: N/A

Rec: \$10,000 – Funding provides for improved monitoring of project use and enhancing access and educational opportunities for project visitors.

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Indiana Harbor, IN

AUTHORIZATION: Rivers and Harbors Act of 1910, 1913, 1919, 1922, 1930, 1935, 1937 and 1960 (P.L. 86-645)

LOCATION AND DESCRIPTION: Indiana Harbor is in northwestern Indiana, on the southwest shore of Lake Michigan in Lake County, 19 miles southeast of Chicago Harbor. The project consists of a north breakwater (1,120 feet of rubblemound structure); an easterly breakwater (2,524 feet rubblemound structure); an approach channel (29 feet deep and 800 feet wide); an anchorage and maneuver basin (28 feet deep); a harbor entrance (27 feet deep and 280 feet wide); and a main canal (22 feet deep).

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$ 0

ALLOCATION FOR FY2011: \$5,700,000

BUDGET FOR FY2012: M: \$4,175,000 O: \$2,500,000 T: \$6,675,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$6.675,000 – \$178,000 funds regular harbor operations, navigation channel and structures' inspections, safety signage, and responsiveness to customers. \$4,400,000 funds annual CDF site operations: continual air-quality monitoring and equipment maintenance, sample collection and testing, and data reporting; groundwater inward gradient pumping and water treatment; site facility maintenance and inspection, sediment emissions control, wildlife exclusion, and security. \$2,097,000 funds the second dredging contract within Indiana Harbor, and begins the restoration of Federal navigation channel dimensions. The dredged material will be placed in the Indiana Harbor Confined Disposal Facility.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: The manner of operation of the Confined Disposal Facility, and the handling of the contaminated dredged material, is of great concern to the community, regulatory agencies and occupational health agencies.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: J Percy Priest Dam & Reservoir, TN

AUTHORIZATION: River and Harbor Act 1946

LOCATION AND DESCRIPTION: J Percy Priest Dam & Reservoir, TN is located on the Stones River, 6.8 miles above its confluence with Cumberland River (mile 205.9), Davidson County, TN. The project consists of a combination earth and concrete gravity dam, a hydropower plant and a flood storage reservoir with recreation and stewardship areas

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$5,000,840

ALLOCATION FOR FY 2011: \$4,608,000

BUDGET FOR FY 2012: M: \$339,000 O: \$4,041,000 T: \$4,380,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: \$519,000 - Funding provides for routine operations & maintenance at minimum levels. Joint operations are necessary to maintain flood control operation of the river.

Rec: \$2,834,000 - Funding provides critical health and safety maintenance and services at minimally acceptable levels for designated recreation areas, including access points, overlooks, day use areas and campgrounds and also provides for joint costs associated with operation of dam structure, spillway gates, intake and outlet works for reservoir regulation; removal and disposal of trash and debris on or in vicinity of dam structures; dam safety/failure training and contingency plans, etc.

Hydro: \$778,000 - Funding provides for routine operations and maintenance for hydroelectric power plant and hydropower joint costs for operation and maintenance of dam. Funds would allow power plant and dam to accomplish missions of providing low cost reliable electric power by maintaining high availability and peak availability and to maintain control of the river.

ES: \$182,000 - Funding provides for the management of natural resources including operation, safety, environmental compliance, maintenance of the project boundary line, and cultural resources. These funds will assure sustainability of natural resources in accordance with the Corps Environmental Operating Principles and stewardship policies and prevent loss and degradation of more than 33,000 acres of project lands and water.

WS: \$67,000 – A water supply reallocation study is currently underway per terms of settlement agreement with the town of Smyrna. System wide operation of Cumberland River requires maintaining a water supply data base. Existing water supply agreements require determining the O&M costs each fiscal year and coordinating with users for payment.

OTHER INFORMATION: Hydropower plant generates 75,000 MWH of energy annually, which is enough supply for 6,250 homes. J. Percy Priest ranks #7 in USACE for recreation with 6,170,000 project visits in FY09 with an associated \$123,980,000 in trip spending.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: J. Edward Roush Lake, IN

AUTHORIZATION: Flood Control Act of 1958 (P.L. 85-500)

LOCATION AND DESCRIPTION: J. Edward Roush Lake is located on the Wabash River in northeastern Indiana about 20 miles southwest of Ft. Wayne and 80 miles northeast of Indianapolis. The dam site is at mile 411.4 of the Wabash River and lies in Huntington and Wells counties. The dam is rolled earth fill with a concrete center section containing the emergency spillway with three crest gates and has a Corps operated and maintained levee and pump plant that protects the town of Markle, approximately seven miles upstream from the dam. The dam is 91 ft high and 6,500 ft long. The project was authorized as a multi-purpose flood control project with additional authorized responsibilities for recreation management, environmental stewardship, and water quality.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$60,600

ALLOCATION FOR FY2011: \$1,793,000

BUDGET FOR FY2012: M: \$1,129,000 **O:** \$1,141,000 **T:** \$2,270,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2012:

N: \$0 - N/A

FRM: \$2,174,000 – Funding provides for routine operation and maintenance of the dam, outlet works and related infrastructure. These funds support execution of our mission to prevent damages to flood-prone areas, property and communities in the floodway, as well as the destructive impacts of floods on human activities within those areas. Critical dam safety programs and activities are also supported with these funds.

Rec: \$40,000 – Funding provides for routine operation and maintenance of day-use recreation areas, facilities and features. These funds support management of the recreation program and public visitation by providing safe recreation facilities, healthy recreation experiences, and visitor assistance and protection, as well as for real estate functions to support recreation management by other lessees, agencies and partners.

Hydro: \$0 - N/A

ES: \$56,000 – Funding provides for performance of environmental stewardship activities which protects the health, sustainability and integrity of the public lands associated with this project. Activities include natural resource management practices, environmental evaluations and reviews, shoreline protection, cultural resource investigations, water quality control, boundary line inspection, and encroachment resolution.

WS: \$0 - N/A

OTHER INFORMATION: FY2009 flood damages prevented were \$12.59M, FY2009 recreation visits were 292K, and FY2009 visitor expenditures were \$5.74M.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: John W. Flannagan Dam and Reservoir, VA

AUTHORIZATION: Section 4 of Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: John W. Flannagan Dam and Reservoir, is located in Dickenson County, VA and situated on the Pound River, a tributary of the Russell Fork of the Levisa Fork of the Big Sandy River. It is 1.8 miles above the mouth of Pound River and 150.0 miles above the mouth of the Big Sandy River. The lake is impounded by a rockfill dam with a central impervious core, with a maximum height of 250 feet, and a top length of 916 feet. The dam was completed in 1964.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$1,005,000

ALLOCATION FOR FY 2011: \$2,230,000

BUDGET FOR FY 2012: M: \$28,000 O: \$2,313,000 T: \$2,341,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: \$1,570,000 – Funding provides for routine operations and maintenance for flood and coastal storm damage reduction to enhance the quality of American life by reducing flood risk to both life and property, providing benefits to individuals, communities, and the national economy.

Rec: \$665,000 – Funding provides for routine operations and maintenance to provide recreational opportunities to the public to enhance the quality of American life by providing benefits to individuals, communities, the national economy, and the environment.

Hydro: N/A

ES: \$75,000 – Funding provides for routine operations and maintenance for environmental stewardship to provide management of natural and cultural resources to achieve healthy, sustainable conditions, and foster healthy lands and waters by balancing public uses and needs.

WS: \$31,000 – Funding provides for routine operations and maintenance for water supply to provide an estimated 10 million gallons per day of water supply for the health, safety and economy of approximately 30,000 citizens in Dickenson, Wise, and Buchanan Counties, Virginia.

OTHER INFORMATION: John W. Flannagan Dam and Reservoir has prevented over \$284,000,000 in damages over the course of its operation. Project visitation for FY 2010 totaled 404,940.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Johnstown, PA

AUTHORIZATION: Flood Control Acts of 1936 (P.L. 74-738) and 1937

LOCATION AND DESCRIPTION: The project is located along the Conemaugh River, Little Conemaugh River, and Stonycreek River at Johnstown, in Cambria County, PA. Johnstown, PA is a Local Flood Protection Project. The major rehabilitation of the nine mile long local flood protection project along the three rivers in Johnstown, PA was authorized in 1991. The approved rehabilitation report included operation and maintenance funded repairs. These repairs mainly consist of sediment removal, channel clearing, concrete slope lining and toe repairs, and repairs to safety railing.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$ 0

ALLOCATION FOR FY2011: \$ 36,000

BUDGET FOR FY2012: M: \$ 0 O: \$ 80,000 T: \$ 80,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: \$80,000 – Assure safety, structure, integrity and operational adequacy through inspection of the project.

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: This project has prevented more than \$814,620,000 in damage since its completion in 1939.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Kanawha River Locks and Dams, WV

AUTHORIZATION: River and Harbor Acts of 1930 (P.L. 71-520) and 1935 (P.L. 74-409)

LOCATION AND DESCRIPTION: Kanawha River Locks and Dams is located in WV, begins at the mouth of the Kanawha River and encompasses 90.6 miles upstream of its confluence with the Ohio River. The Locks and Dams located along this stretch include London, Marmet and Winfield.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$1,927,000

ALLOCATION FOR FY 2011: \$9,791,000

BUDGET FOR FY 2012: M: \$4,265,000 O: \$8,136,000 T: \$12,401,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$12,244,000 –Funding provides for routine operations and maintenance for navigation; critical fleet maintenance to accomplish the replacement of the roller gate chain and handrailing and rehabilitating the miter gate machinery and gate anchorage components for the auxiliary locks at Marmet L&D; and dredging to maintain the navigation channel. These efforts will ensure that failed and inadequate components are restored and maintained at an adequate level of operation.

FRM: N/A

Rec: \$130,000 – Funding provides for routine operations and maintenance to provide recreational opportunities to the public to enhance the quality of American life by providing benefits to individuals, communities, the national economy, and the environment.

Hydro: N/A

ES: \$27,000 – Funding provides for routine operations and maintenance for environmental stewardship to provide management of natural and cultural resources to achieve healthy, sustainable conditions, and foster healthy lands and waters by balancing public uses and needs.

WS: N/A

OTHER INFORMATION: The 5 year average tonnage of commodities transported on the Kanawha River Locks and Dams exceeds 20,000,000. Project visitation for FY 2010 totaled 245,680.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Kentucky River, KY

AUTHORIZATION: Rivers and Harbors Act of 1879.

LOCATION AND DESCRIPTION: Located in east central Kentucky, the authorization provided for 14 locks and fixed dams on the Kentucky River for navigation from the confluence with the Ohio River at Carrollton, Kentucky to Beattyville, Kentucky. Kentucky Locks 5-14 have been transferred from the Corps to the Commonwealth of Kentucky. Kentucky Locks 1-4 are leased to the Commonwealth of Kentucky for Public Park and Recreation.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$0

ALLOCATION FOR FY2011: \$10,000

BUDGET FOR FY2012: M: \$0 **O:** \$10,000 **T:** \$10,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2012:

N: \$10,000 – Funding provides for annual review of the Commonwealth's lease and to respond to requests and questions from the Commonwealth. The Navigation line item covers the cost for Real Estate Division to process the transfer of the property to the Commonwealth of Kentucky.

FRM: \$0 - N/A

Rec: \$0 - N/A

Hydro: \$0 - N/A

ES: \$0 - N/A

WS: \$0 - N/A

OTHER INFORMATION: Since the locks are no longer operated by the Corps they are considered excess property. A disposition study is planned to initiate transfer of the 4 remaining locks if and when funding is made available.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Keweenaw Waterway, MI

AUTHORIZATION: Rivers and Harbors Act of 1865

LOCATION AND DESCRIPTION: The Keweenaw Waterway is located in the Keweenaw Peninsula of the upper peninsula of Michigan, between Keweenaw Bay and Lake Superior. The west, upper entrance is 169 miles east of Duluth, MN and the east, lower entrance is approximately 60 miles west of Marquette, MI. It is a deep draft commercial waterway with a project depth of 32 feet in the upper entrance channel, 28 feet in the lower entrance channel, and 25 feet in the interior channel. There are approximately 24,300 feet of structures including breakwaters, piers, and revetments and over 18 miles of maintained channels.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$0

ALLOCATION FOR FY 2011: \$12,000

BUDGET FOR FY 2012: M: \$0 **O:** \$12,000 **T:** \$12,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: N/A

Rec: \$12,000 – Funding provides for operational maintenance of recreational features of this project, thereby ensuring access to parking areas and trails.

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Kinzua Dam and Allegheny Reservoir, PA

AUTHORIZATION: Flood Control Act of 1936 (P.L. 74-738), as amended by the Flood Control Act of 28 June 1938 (P.L. 75-761) and 18 August 1941

LOCATION AND DESCRIPTION: Kinzua Dam is located on the Allegheny River in Warren County, PA, approximately 198 miles above the mouth of the river at Pittsburgh, PA. The reservoir is located in Warren and McKean Counties, PA, and Cattaraugus County, NY Kinzua Dam and Allegheny Reservoir, PA is a multi-purpose reservoir.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$ 269,430

ALLOCATION FOR FY2011: \$ 1,469,000

BUDGET FOR FY2012: M: \$ 157,000 O: \$1,408,000 T: \$ 1,565,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: \$1,320,000 - Accomplish flood reduction mission by operation of the dam, water control management, dam safety inspections, required safety related analysis and studies, and real estate outgrant management. Repairs to the dam electrical and control systems.

Rec: \$225,000 – Operate and maintain recreation facilities; the lake has nine boat ramps, numerous campgrounds, extensive trails, picnic areas, and a visitor information center. Also fulfills Corps requirements for visitor health and safety.

Hydro: N/A

ES: \$20,000 - Accomplish shoreline management, threatened/endangered species surveillance, cultural resource protection/preservation, invasive species eradication, and protection of natural resources. These funds will assure sustainability of natural resources in accordance with the Corps Environmental Operating Principles and stewardship policies and prevent loss and degradation to project lands and water.

WS: N/A

OTHER INFORMATION: This project supports approximately 85 jobs, and has prevented more than \$1,208,314,000 in damage since its completion in 1965. The project also houses a hydroelectric power plant operated by the First Energy Corporation. Its peak capacity is 400,000 kilowatts per hour. The reservoir also provides water to be released during dry periods. These releases have the effect of reducing pollution and improving the quality and quantity of water for domestic, industrial and recreation uses. Flow regulation also helps to maintain navigable depths for commercial traffic on the Allegheny and upper Ohio Rivers. Average recreational visitors from 2005 through 2010 were 257,575 annually.

Division: Great Lakes and Ohio River District: Pittsburgh Kinzua Dam and Allegheny Reservoir, PA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Lake Michigan Diversion, IL

AUTHORIZATION: Water Resources Development Act 1986 (P.L. 99-662)

LOCATION AND DESCRIPTION: Lake Michigan Diversion is in Illinois on the southwest shore of Lake Michigan in Cook County, within the corporate limits of the City of Chicago. Concern by Great Lakes States about the diversions of Lake Michigan water out of the basin led to several U.S. Supreme Court Decrees. The latest, modified in 1980, specifies the allowable diversion at 3,200 cubic feet per second. The work on this project involves flow measurement near Lemont, hydrologic modeling of the basin, hydraulic modeling of the combined sewer and Tunnel and Reservoir Plan systems and diversion accounting computations.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$ 0

ALLOCATION FOR FY2011: \$710,000

BUDGET FOR FY2012: M: \$0 O: \$725,000 T: \$725,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$725,000 - \$143,000 funds Lake Michigan water diversion data analysis, reporting efforts, and diversion accounting modeling activities. \$582,000 funds Lake Michigan water diversion data collection and flow measurements.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Beginning with the State of Illinois' reversal of the flow of the Chicago River in 1900, the other Great Lakes states (Indiana, Michigan, Minnesota, New York, Ohio, Pennsylvania and Wisconsin) have been concerned about the diversions of Lake Michigan water out of the basin. Their concern has led to litigation and a series of U.S. Supreme Court Decrees, which have regulated the diversion since 1925. The 1967 Decree, modified in 1980, specifies the allowable diversion at 3,200 cubic feet per second. The Corps of Engineers, who is responsible for measuring the diversion, reported during recent years that Illinois had been diverting in excess of the amount provided in the Decree. Measurements are presently taken on the Chicago Sanitary and Ship Canal near Lemont, which is approximately six miles upstream from Romeoville. In accordance with the U.S. Supreme Court Decree modified in 1980, and WRDA 1986, the District continues to hold the responsibilities of diversion accounting computations and diversion certification.

Division: Great Lakes and Ohio River

District: Chicago

Lake Michigan Diversion, IL

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Laurel River Lake, KY

AUTHORIZATION: River and Harbor Act 1946

LOCATION AND DESCRIPTION: Laurel River Lake is located in southeastern Kentucky, near Corbin, KY. Project consists of a rock fill dam, hydropower plant and a flood storage reservoir with recreation and stewardship areas.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$940,000

ALLOCATION FOR FY 2011: \$1,646,000

BUDGET FOR FY 2012: M: \$169,000: O: \$1,420,000 T: \$1,589,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: N/A

Rec: \$312,000 - \$178,000 funding provides critical health and safety maintenance and services at minimally acceptable levels for designated recreation areas, including access points, overlooks, and day use areas and \$251,000 funding provides for joint costs associated with operation of the dam structure, spillway gates, intake and outlet works for reservoir regulation; removal and disposal of trash and debris on or in vicinity of dam structures; dam safety/failure training and contingency plans, etc.

Hydro: \$1,167,000 - Funding provides for routine operations and maintenance for hydroelectric power plant and hydropower's part of joint costs for operation and maintenance of the dam. Funds would allow power plant and dam to accomplish assigned missions of providing low cost reliable electric power by maintaining high availability and peak availability and to maintain control of the river.

ES: \$59,000 - Funding provides for the management of natural resources including operation, safety, environmental compliance, maintenance of the project boundary line, and cultural resources. These funds will assure sustainability of natural resources in accordance with the Corps Environmental Operating Principles and stewardship policies and prevent loss and degradation of more than 1,200 acres of project lands and water.

WS: \$51,000 - Existing water supply agreements require determining the O&M costs each fiscal year and coordinating with users for payment. Increased costs are due to instances of non-compliance.

OTHER INFORMATION: Hydropower plant generates 66,000 MWH of energy annually, which is enough supply for 5,500 homes. Laurel River Lake had 355,000 project visits in FY09 with an associated \$6,770,000 in trip spending.

Division: Great Lakes and Ohio River

District: Nashville

Laurel River Lake, KY

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Little Sodus Bay Harbor, NY

AUTHORIZATION: River and Harbor Acts of 1852, 1866, 1871, 1881 (21 Stat. 468) and 1902

LOCATION AND DESCRIPTION: Little Sodus Bay Harbor is a deep draft recreational harbor, located on Lake Erie, in the town of Fair Haven, Cayuga County, NY, whose authorized depth is 15.5 feet in the entrance channel. The current maintenance depth is 8 feet.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$0

ALLOCATION FOR FY2011: \$6,000

BUDGET FOR FY2012: M: \$0 O: \$5,000 T: \$5,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2012:

N: N/A

FRM: N/A

Rec: \$5,000 – Funding provides for public visitation tracking at Little Sodus Bay Harbor. These funds will be used to monitor and evaluate the public use of the Little Sodus Bay Harbor East Pier. The data collected will be used to justify future recreation funding to improve public access and recreation features and/or operations and maintenance funding to operate, maintain and repair the navigation structure.

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: This Harbor of Refuge is protected by east and west piers and an east breakwater with a total length of 5,237 feet. Major stakeholders include commercial fishing interests and the recreational boating community. Navigation structures with recreation features (i.e. walkway) are often heavily used by the public for a variety of reasons, including: access to the waterfront, fishing, and/or location next to an existing public park. The east pier is connected to land by the east breakwater and can be accessed from the adjacent Fair Haven Beach State Park.

Division: Great Lakes and Ohio River

District: Buffalo

Little Sodus Bay Harbor, NY

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Lorain Harbor, OH

AUTHORIZATION: River and Harbor Acts of 1910 (P.L.60-317), 1917 (P.L. 64-108), 1930 (P.L. 71-520), 1935 (P.L. 74-409), 1945 (P.L. 79-14), 1960 (P.L. 86-645) and 1965 (P.L. 89-298). WRDA 1986 (P.L. 99-662)

LOCATION AND DESCRIPTION: Lorain Harbor is a deep draft commercial harbor whose authorized depths are 28 feet in the outer harbor and 27 feet in the river.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$534,984

ALLOCATION FOR FY2011: \$443,000

BUDGET FOR FY2012: M: \$1,004,000 **O:** \$52,000 **T:** \$1,056,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2012:

N: \$1,056,000 - Funding provides for routine operations and maintenance for navigation including project condition surveys, and dredging. These funds would improve navigation performance by reducing unsafe navigation conditions within the harbor, vessel delays and transportation costs. The project condition surveys will determine the condition of the Federal navigation channel. The surveys will be used to plan and schedule maintenance activities and communicate the condition of Federal channels to navigation interests. The dredging will remove approximately 130,000 cubic yards of sediment, improving the availability and reliability of the navigation channels.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Lorain Harbor is the 108th leading U.S. port with 2.2M tons of material shipped or received in 2008. It is ranked 24th among the Great Lakes ports. The project provides maintained deep draft navigation channels that facilitate the movement of goods and materials to and from commercial docks. Project features include over 2.5 miles of breakwater structures, 60 acre outer harbor and 2.6 miles of Federal channel on the Black River, and a confined disposal facility (CDF) that is located at the eastern end of the harbor. Major stakeholders include the Lorain Port Authority, U.S. Coast Guard, Amcor Marine, American Metal Chemical Corp., Gold Bond/U.S. Gypsum, Jonick Dock & Terminal, Lorain Tubular Co., National Gypsum Co., Republic Technologies Int., and terminal Ready Mix, Inc. Bulk commodities that pass through Lorain Harbor generate approximately \$37,930,000 annually in direct revenue.

Division: Great Lakes and Ohio River

District: Buffalo

Lorain Harbor, OH

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Loyalhanna Lake, PA

AUTHORIZATION: Flood Control Act of 22 June 1936 (P.L. 74-738), as amended by Flood Control Act of 28 June 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Loyalhanna Dam is on Loyalhanna Creek, 4.75 miles above its junction with the Conemaugh River at Saltsburg, PA, forming the Kiskiminetas River. The reservoir is located entirely in Westmoreland County, PA. Loyalhanna Lake is a multi-purpose reservoir.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$ 42,677

ALLOCATION FOR FY2011: \$ 1,460,000

BUDGET FOR FY2012: M: \$ 0 O: \$ 1,611,000 T: \$ 1,611,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: \$1,424,000 - Accomplish flood reduction mission by operation of the dam, water control management, dam safety inspections, required safety related analysis and studies, and real estate outgrant management.

Rec: \$139,000 – Operate and maintain recreation facilities, including a unique self-guided boating trail, picnic area, campgrounds at Bush Run and Kiski areas, and two boat launching ramps. Also fulfills Corps requirements for visitor health and safety.

Hydro: N/A

ES: \$48,000 - Accomplish shoreline management, threatened/endangered species surveillance, cultural resource protection/preservation, invasive species eradication, and protection of natural resources. These funds will assure sustainability of natural resources in accordance with the Corps Environmental Operating Principles and stewardship policies and prevent loss and degradation to project lands and water.

WS: N/A

OTHER INFORMATION: This project supports approximately 73 jobs and has prevented more than \$519,511,000 in damages since its completion in 1943. Average recreational visitors from 2005 through 2010 were 201,532 annually.

Division: Great Lakes and Ohio River District: Pittsburgh

Loyalhanna Lake, PA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Mahoning Creek Lake, PA

AUTHORIZATION: Flood Control Act of 22 June 1936 (P.L. 74-738), as amended by the Flood Control Act of 28 June 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Mahoning Dam is on Mahoning Creek in Armstrong County, PA 22.9 miles upstream from the junction of the creek and the Allegheny River. The reservoir is located in Armstrong, Indiana and Jefferson Counties, PA. Mahoning Creek Lake is a multi-purpose reservoir.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$ 3,971,940

ALLOCATION FOR FY2011: \$ 1,326,000

BUDGET FOR FY2012: M: \$ 614,000 O: \$1,391,000 T: \$ 2,005,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: \$1,920,000 - Accomplish flood reduction mission by operation of the dam, water control management, dam safety inspections, required safety related analysis and studies, and real estate outgrant management. Concrete repairs to stilling basin and training walls to prevent further deterioration and preserve stability.

Rec: \$70,000 - Operate and maintain recreation facilities, including picnic areas, trails, boat launch ramps, and campsites. Also fulfills Corps requirements for visitor health and safety.

Hydro: N/A

ES: \$15,000 – Accomplish shoreline management, threatened/endangered species surveillance, cultural resource protection/preservation, invasive species eradication, and protection of natural resources. These funds will assure sustainability of natural resources in accordance with the Corps Environmental Operating Principles and stewardship policies and prevent loss and degradation to project lands and water.

WS: N/A

OTHER INFORMATION: This project supports approximately 55 jobs, and has prevented more than \$670,295,000 in damage since its completion in 1941. Average recreational visitors from 2005 through 2010 were 85,125 annually.

Division: Great Lakes and Ohio River District: Pittsburgh Mahoning Creek Lake, PA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Martins Fork Lake, KY

AUTHORIZATION: River and Harbor Act 1946

LOCATION AND DESCRIPTION: Martins Fork Lake is located in southeastern Kentucky, Harlan County, near the City of Harlan. The project consists of a concrete gravity dam and a flood storage reservoir with recreation and stewardship areas.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$147,000

ALLOCATION FOR FY 2011: \$1,088,000

BUDGET FOR FY 2012: M: \$225,000 O: \$999,000 T: \$1,224,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: \$1,127,000 – Funding provides for routine operations and maintenance of the dam.

Rec: \$16,000 - Funding provides for the minimum oversight of existing recreation out-grants and fulfills Corps requirements for visitor health and safety.

Hydro: N/A

ES: \$76,000 - Funding provides for the management of natural resources including operation, safety, environmental compliance, maintenance of the project boundary line, and cultural resources. These funds will assure sustainability of natural resources in accordance with the Corps Environmental Operating Principles and stewardship policies and prevent loss and degradation of more than 1,300 acres to project lands and water. Failure to fund will result in immediate degradation and loss of natural resources, including forests, water quality, shoreline habitat, and aesthetic value.

WS: \$5,000 - Funding provides for evaluating all new intake requests' impacts.

OTHER INFORMATION: Project prevents a major portion of average annual flood losses at Harlan and results in significant stage reductions with related benefits along rural reaches and to other urban areas downstream. Martins Fork Lake had 178,000 project visits in FY09 with an associated \$3,580,000 in trip spending.

Division: Great Lakes and Ohio River

District: Nashville

Martins Fork Lake, KY

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Massillon Local Protection Project, OH

AUTHORIZATION: Section 4 of the Flood Control Act (FCA) of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Massillon Local Protection Project is located in Stark County, OH on the Tuscarawas River. The levee protects the City of Massillon from flooding along the Tuscarawas River. Maintenance of the levee is the joint responsibility of the City of Massillon and the United States Army Corps of Engineers. Annual mowing and dam inspections are required.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$671,000

ALLOCATION FOR FY 2011: \$21,000

BUDGET FOR FY 2012: M: \$0 O: \$29,000 T: \$29,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: \$29,000 – Funding provides for routine operations and maintenance for flood and coastal storm damage reduction to reduce the risk of failure and allow for a thorough inspection to be conducted.

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Massillon Local Protection Project has prevented over \$5,000,000 in damages over the course of its operation.

Division: Great Lakes and Ohio River

District: Huntington

Massillon Local Protection Project, OH

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Michael J. Kirwan Dam and Reservoir, OH

AUTHORIZATION: Flood Control Act of 3 July 1958 (P.L. 85-500), with local cooperation requirements modified by the Flood Control Act of July 1960 (P.L. 86-645)

LOCATION AND DESCRIPTION: Michael J. Kirwan Dam is located on the West Branch of the Mahoning River about 12.0 miles above the junction of the branch and the Mahoning River at Newton Falls, OH. The reservoir is located entirely within Portage County, OH. MJ Kirwan Dam and Reservoir is a multi-purpose reservoir.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$ 294,693

ALLOCATION FOR FY2011: \$ 1,403,000

BUDGET FOR FY2012: M: \$ 8,000 O: \$ 1,348,000 T: \$ 1,356,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: \$1,264,000 - Accomplish flood reduction mission by operation of the dam, water control management, dam safety inspections, required safety related analysis and studies, and real estate outgrant management.

Rec: \$49,000 - Operate and maintain recreation facilities that enable picnicking, boating, camping, fishing, and hiking. Also fulfills Corps requirements for visitor health and safety.

Hydro: N/A

ES: \$43,000 - Accomplish shoreline management, threatened/endangered species surveillance, cultural resource protection/preservation, invasive species eradication, and protection of natural resources. These funds will assure sustainability of natural resources in accordance with the Corps Environmental Operating Principles and stewardship policies and prevent loss and degradation to project lands and water.

WS: N/A

OTHER INFORMATION: This project supports approximately 87 jobs and has prevented more than \$632,244,000 in damages since its completion in 1967. Average recreational visitors from 2005 through 2010 were 197,779 annually.

Division: Great Lakes and Ohio River

District: Pittsburgh

Michael J Kirwan Dam & Reservoir, OH

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Middlesboro Cumberland River, KY

AUTHORIZATION: 1936 Flood Control Act (PL 74-53)

LOCATION AND DESCRIPTION: Middlesboro Cumberland River, KY is a local flood risk management project composed of a canal and levee system located at Middlesboro, KY.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$1,592,470

ALLOCATIONS FOR FY 2011: \$113,000

BUDGET FOR FY 2012: M: \$0 O: \$240,000 T: \$240,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FRM: \$240,000 - Funding provides for minimal costs to meet legal requirements for environmental compliance and safety, routine mowing and vegetation control of levee, annual costs for necessary operations of project facilities and equipment to meet flood damage reduction measure of 100% availability.

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Located at Middlesboro, KY, on Yellow Creek, a tributary entering the Cumberland River about 660 miles above its mouth. Project consists of a canal and levee system about 4 miles in length which diverts the headwaters of Yellow Creek around the city.

Division: Great Lakes and Ohio River

District: Nashville

Middlesboro Cumberland
River, KY

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Mississinewa Lake, IN

AUTHORIZATION: Flood Control Act of 1958 (P.L. 85-500)

LOCATION AND DESCRIPTION: Mississinewa Lake is located in north central Indiana about seven miles southeast of Peru and 65 miles northeast of Indianapolis. The dam site is at mile 7.1 on the Mississinewa River, a tributary of the Wabash River. The project lies in Miami, Wabash and Grant counties. The dam is earthfill with gate controlled outlet works and uncontrolled open spillway and is 140 ft high and 8,000 ft long. The project was authorized as a multi-purpose flood control project with additional authorized responsibilities for recreation management, environmental stewardship, and water quality.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$51,400

ALLOCATION FOR FY2011: \$1,147,000

BUDGET FOR FY2012: M: \$0 **O:** \$1,231,000 **T:** \$1,231,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2012:

N: \$0 - N/A

FRM: \$1,112,000 – Funding provides for routine operation and daily maintenance of the dam, outlet works and related infrastructure. These funds support execution of our mission to prevent damages to flood-prone areas, property and communities in the floodway, as well as the destructive impacts of floods on human activities within those areas. Critical dam safety programs and activities are also supported with these funds.

Rec: \$47,000 – Funding provides for routine operation and maintenance of day-use recreation areas, facilities and features. These funds support management of the recreation program and public visitation by providing safe recreation facilities, healthy recreation experiences, and visitor assistance and protection, as well as for real estate functions to support recreation management by other lessees, agencies and partners.

Hydro: \$0 - N/A

ES: \$72,000 – Funding provides for performance of environmental stewardship activities which protects the health, sustainability and integrity of the public lands associated with this project. Activities include natural resource management practices, environmental evaluations and reviews, shoreline protection, cultural resource investigations, water quality control, boundary line inspection, and encroachment resolution.

WS: \$0 - N/A

OTHER INFORMATION: FY2009 flood damages prevented were \$18.96M, FY2009 recreation visits were 565K, and FY2009 visitor expenditures were \$13.99M.

Division: Great Lakes and Ohio River

District: Louisville

Mississinewa Lake, IN

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Monongahela River, PA and WV

AUTHORIZATION: Rivers and Harbors Act, 1902, 1905, 1909, 1922, 1930 and 1950; WRDA 1986 and 1992; Supplemental Appropriations Act 1985

LOCATION AND DESCRIPTION: Project consists of the navigable portion of the Monongahela River for the entire 128.7 miles of river from just above Fairmont, WV to the Point at Pittsburgh, PA. The nine navigation locks and dams are Braddock, Grays Landing, Hildebrand, Maxwell, Morgantown, Opekiska, Point Marion and Locks and Dam 3 and 4.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$3,659,592

ALLOCATION FOR FY2011: \$15,861,000

BUDGET FOR FY2012: M: \$3,922,000 **O:** \$13,096,000 **T:** \$17,018,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$17,018,000 - Operate and maintain nine navigation locks and dams. Dewater Chamber at Lock 4 to repair miter gates, sills, valve frames, and operating machinery. Replace antiquated valve operating machinery at Lock 3. Correct gate and valve interlock problems identified on various lock projects. Project provides approximately 129 miles of navigable river including nine navigation facilities.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Commercial and recreational navigation is provided via nine locks and dams within the 128.7 mile reach of river. 28,000,000 tons of cargo was serviced by the Monongahela navigation system in 2008. The locks between Braddock and Point Marion are operated 24 hours a day/365 days a year. The Upper Monongahela River locks at Morgantown, Hildebrand, and Opekiska are operated at greatly reduced hours due to limited commercial traffic. Adequate funding is required to address these deteriorating, aging structures. In particular, funds are needed to replace deteriorated miter gates and floating mooring bitts at Maxwell Locks, to initiate a major rehabilitation report for Braddock Locks, for rehabilitation of electrical and mechanical systems at Maxwell, Morgantown and Hildebrand locks and dams, dam maintenance crane at Opekiska lock and dam, and sheet pile wall repair at Lock 3.

Division: Great Lakes and Ohio River District: Pittsburgh Monongahela River, PA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Monroe Lake, IN

AUTHORIZATION: Flood Control Act of 1958 (P.L. 85-500)

LOCATION AND DESCRIPTION: Monroe Lake lies mostly in Monroe County with portions in Brown and Jackson Counties and combines the North, Middle, and South Forks of Salt Creek in south central Indiana. The dam is located about 26 miles from Salt Creek's confluence with the East Fork of the White River and is about 10 miles south of Bloomington, Indiana. The dam is earth core and rock shell with gate-controlled outlet works and uncontrolled open spillway and is 93 ft high and 1,350 ft long. The project was authorized as a multi-purpose flood control project with additional authorized responsibilities for recreation management, environmental stewardship, water supply and water quality.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$111,200

ALLOCATION FOR FY2011: \$1,899,000

BUDGET FOR FY2012: M: \$16,000 **O:** \$1,236,000 **T:** \$1,252,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2012:

N: \$0 - N/A

FRM: \$1,115,000 – Funding provides for routine operation and maintenance of the dam, outlet works and related infrastructure. These funds support execution of our mission to prevent damages to flood-prone areas, property and communities in the floodway, as well as the destructive impacts of floods on human activities within those areas. Critical dam safety programs and activities are also supported with these funds.

Rec: \$40,000 – Funding provides for routine operation and maintenance of day-use recreation areas, facilities and features. These funds support management of the recreation program and public visitation by providing safe recreation facilities, healthy recreation experiences, and visitor assistance and protection, as well as for real estate functions to support recreation management by other lessees, agencies and partners.

Hydro: \$0 - N/A

ES: \$91,000 – Funding provides for performance of environmental stewardship activities which protects the health, sustainability and integrity of the public lands associated with this project. Activities include natural resource management practices, environmental evaluations and reviews, shoreline protection, cultural resource investigations, water quality control, boundary line inspection, and encroachment resolution.

WS: \$6,000 – Funding provides for performance of annual activities required to support the negotiation, revision and/or coordination of water supply contracts, and addresses local and congressional interests and concerns for water needs affecting public health and welfare.

OTHER INFORMATION: FY2009 flood damages prevented were \$3.5M, FY2009 recreation visits were 950,000, and FY2009 visitor expenditures were \$27.21M.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Mosquito Creek Lake, OH

AUTHORIZATION: Flood Control Act of 28 June 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Mosquito Dam is on Mosquito Creek, 12.6 miles upstream from its junction with the Mahoning River at Niles, OH. The reservoir is located entirely in Trumbull County, OH. Mosquito Creek Lake is a multi-purpose reservoir.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$ 34,662

ALLOCATION FOR FY2011: \$ 1,413,000

BUDGET FOR FY2012: M: \$ 247,000 O: \$ 1,207,000 T: \$ 1,454,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: \$1,336,000 - Accomplish flood reduction mission by operation of the dam, water control management, dam safety inspections, required safety related analysis and studies, and real estate outgrant management. Complete critical repairs to the dam service gate frames.

Rec: \$89,000 – Operate and maintain recreation facilities that support boating, camping, swimming, fishing, picnicking, and hiking. Also fulfills Corps requirements for visitor health and safety.

Hydro: N/A

ES: \$22,000 - Accomplish shoreline management, threatened/endangered species surveillance, cultural resource protection/preservation, invasive species eradication, and protection of natural resources. These funds will assure sustainability of natural resources in accordance with the Corps Environmental Operating Principles and stewardship policies and prevent loss and degradation to project lands and water.

WS: \$7,000 – Management and oversight of existing water supply contract with the city of Warren, OH.

OTHER INFORMATION: This project supports approximately 226 jobs, and has prevented more than \$277,133,000 in damage since its completion in 1944. Mosquito Creek Lake also stores water and releases it downstream during dry periods to improve water quality and quantity for domestic and industrial use, recreation, aesthetics and aquatic life. Additionally, the lake serves as a water supply for the City of Warren, Ohio. Average recreational visitors from 2005 through 2010 were 911,241 annually.

Division: Great Lakes and Ohio River District: Pittsburgh Mosquito Creek Lake, OH

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Mount Morris Dam, NY

AUTHORIZATION: Flood Control Act of 1944 (P.L. 78-534) and Sec 5110 WRDA 2007 (P.L. 110-114), as amended

LOCATION AND DESCRIPTION: Mount Morris Dam is a dry-bed dam that provides flood damage reduction for the metropolitan area of Rochester, NY, other residential areas, farmlands, and industrial developments in the lower Genesee River Valley. Project includes a dry-bed dam, visitor center and service facilities, supporting recreation and natural resource management activities.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$930,518

ALLOCATION FOR FY2011: \$3,661,000

BUDGET FOR FY2012: M: \$667,000 **O:** \$2,194,000 **T:** \$2,861,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2012:

N: N/A

FRM: \$2,549,000 – Funding provides for routine annual and periodic operations and maintenance activities necessary to operate the dam and service facilities. These funds would ensure continued operation of the project and improve the condition of critical project features thereby ensuring continued project availability to mitigate damages from flooding in the lower Genesee River Valley.

Rec: \$248,000 – Funding provides for routine operation and maintenance of visitor center and supporting recreation activities. An interpretive program through the Visitor Information Center exists to educate the public about the importance and history of the Corps and the project. These funds would ensure continued operation of the visitor center and interpretive program.

Hydro: N/A

ES: \$64,000 – Funding provides for wildlife management, continuation of the Historic Properties Management Plan and pest management activities. These funds are required to perform preservation and improvement activities for fish and wildlife that are essential to the proper environmental management of the project and reservoir.

WS: N/A

OTHER INFORMATION: The Dam serves 161,000 people in the Genesee River 100-year flood plain. In 2009, the dam prevented an estimated \$135,450,000 in flood damages. Since its completion in 1952, the dam has prevented an estimated \$1,750,000,000 in flood damages.

Division: Great Lakes and Ohio River

District: Buffalo

Mount Morris Dam, NY

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Muskegon Harbor, MI

AUTHORIZATION: Rivers and Harbors Act of 1902, as amended

LOCATION AND DESCRIPTION: Muskegon Harbor is located on the east shore of Lake Michigan, 114 miles northeast of Chicago, IL. It is a deep draft commercial harbor with project depths of between 28 and 29 feet. It has approximately 6,500 feet of maintained Federal channel and the dredged material from this harbor is used for shoreline nourishment. Maintenance dredging is required on a two to three year cycle, and was last dredged in 2008. Muskegon Harbor also has approximately 6,200 feet of maintained structures, including breakwaters, piers, and revetments.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$0

ALLOCATION FOR FY 2011: \$872,000

BUDGET FOR FY 2012: M: \$700,000 O: \$0 T: \$700,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$700,000 – Funding provides for routine operations and maintenance for navigation, including navigation breakwater repairs by Government floating plant. Muskegon harbor handles over 2 million tons of cargo annually.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

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PROJECT NAME: Muskingum River Lakes, OH

AUTHORIZATION: Section 4 of the Flood Control Act (FCA) of 1938 (P.L. 75-761) as amended by Section 4 of the FCA of 1939 (P.L. 76-396)

LOCATION AND DESCRIPTION: The Muskingum River basin is the largest watershed within the State of OH. The river and its tributaries drain 8,051 square miles in all or parts of 24 counties in the southeastern portion of the state. The Muskingum River includes Atwood Lake, Beach City Lake, Bolivar Dam, Charles Mill Lake, Clendening Lake, Dover Dam, Leesville Lake, Mohawk Dam, Mohicanville Dam, Piedmont Lake, Pleasant Hill Lake, Senecaville Lake, Tappan Lake, and Wills Creek Lake.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$3,625,000

ALLOCATION FOR FY 2011: \$8,244,000

BUDGET FOR FY 2012: M: \$2,836,000 O: \$9,545,000 T: \$12,381,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: \$12,035,000 – Funding provides for routine operations and maintenance for flood and coastal storm damage reduction, including required inspections to enhance the quality of American life by reducing flood risk to both life and property, providing benefits to individuals, communities, and the national economy; and Interim Risk Reduction Measures including clearing vegetation, performing a dam safety exercise, increasing the relief well collection system capacity, installing a staff gage, and capturing video of conduits to determine pipe condition for Beach City Lake and its appurtenances; installing instrumentation, removing trees, performing a dam safety exercise, and installing relief wells for Bolivar Dam and its appurtenances; capturing video of conduits to determine pipe condition, dredging the diversion channel, acquiring flood fighting equipment, and installing an alarm for Dover Dam and its appurtenances; improving access, rehabilitating relief wells, and removing trees for Mohawk Dam; and clearing vegetation, performing an emergency exercise, and installing gages for Tappan Lake and its appurtenances.

Rec: \$317,000 – Funding provides for routine operations and maintenance to provide recreational opportunities to the public to enhance the quality of American life by providing benefits to individuals, communities, the national economy, and the environment.

Hydro: N/A

ES: \$29,000 – Funding provides for routine operations and maintenance for environmental stewardship to provide management of natural and cultural resources to achieve healthy, sustainable conditions, and foster healthy lands and waters by balancing public uses and needs.

WS: N/A

OTHER INFORMATION: Collectively, the Muskingum River Lake projects have prevented over \$3,000,000,000 in damages over the course of its operation. Project visitations for FY 2010 totaled 7,730,608.

Division: Great Lakes and Ohio River

District: Huntington

Muskingum River Lakes, OH

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Nolin Lake, KY

AUTHORIZATION: Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Nolin Lake is located in Edmonson, Grayson and Hart Counties in south central Kentucky. It is located approximately 12 miles south of Leitchfield, Kentucky and 70 miles south of Louisville, Kentucky. The dam site is 7.8 miles above the mouth of the Nolin River and 9.6 miles upstream from Lock 6 on the Green River. The dam is rockfill and earth core type with gate controlled outlet works and uncontrolled open spillway and is 166 ft high and 980 ft long. The project was authorized as a multi-purpose flood control project with additional authorized responsibilities for recreation management, environmental stewardship, water supply and water quality.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$2,968,700

ALLOCATION FOR FY2011: \$2,821,000

BUDGET FOR FY2012: M: \$15,000 **O:** \$2,472,000 **T:** \$2,487,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2012:

N: \$0 - N/A

FRM: \$1,669,000 – Funding provides for routine operation and maintenance of the dam, outlet works and related infrastructure. These funds support execution of our mission to prevent damages to flood-prone areas, property and communities in the floodway, as well as the destructive impacts of floods on human activities within those areas. Critical dam safety programs and activities are also supported with these funds.

Rec: \$558,000 – Funding provides for routine operation and maintenance of day-use and overnight recreation areas, facilities and features. These funds support management of the recreation program and public visitation by providing safe recreation facilities, healthy recreation experiences, and visitor assistance and protection, as well as for real estate functions to support recreation management by other lessees, agencies and partners.

Hydro: \$0 - N/A

ES: \$254,000 – Funding provides for performance of environmental stewardship activities which protects the health, sustainability and integrity of the public lands associated with this project. Activities include natural resource management practices, environmental evaluations and reviews, shoreline protection, cultural resource investigations, water quality control, boundary line inspection, and encroachment resolution.

WS: \$6,000 – Funding provides for performance of annual activities required to support the negotiation, revision and/or coordination of water supply contracts, and addresses local and congressional interests and concerns for water needs affecting public health and welfare.

OTHER INFORMATION: FY2009 flood damages prevented were \$1.79M, FY2009 recreation visits were 2.1M, and FY2009 visitor expenditures were \$44.97M.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: North Branch Kokosing River Lake, OH

AUTHORIZATION: Section 203 of the Flood Control Act of 1962 (P.L. 87-874)

LOCATION AND DESCRIPTION: North Branch Kokosing River Lake is located north of Mount Vernon and west of Fredericktown, OH. Kokosing Dam was built for flood control, recreation and wildlife management. The majority of the property at Kokosing Lake is leased by the Ohio Division of Natural Resources for fish and wildlife management. The Ohio Division of Natural Resources manages the 154-acre lake and 959 acres of public hunting area for a variety of fish and wildlife. The Kokosing Lake Campground, located on the banks of Kokosing Lake, is leased by Muskingum Watershed Conservancy District (MWCD). The crest length of the dam is 1,400 feet. The dam was completed in May 1972.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$17,000

ALLOCATION FOR FY 2011: \$296,000

BUDGET FOR FY 2012: M: \$0 O: \$444,000 T: \$444,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: \$389,0/00 – Funding provides for routine operations and maintenance for flood and coastal storm damage reduction to enhance the quality of American life by reducing flood risk to both life and property, providing benefits to individuals, communities, and the national economy.

Rec: \$49,000 – Funding provides for routine operations and maintenance to provide recreational opportunities to the public to enhance the quality of American life by providing benefits to individuals, communities, the national economy, and the environment.

Hydro: N/A

ES: \$6,000 – Funding provides for routine operations and maintenance for environmental stewardship to provide management of natural and cultural resources to achieve healthy, sustainable conditions, and foster healthy lands and waters by balancing public uses and needs.

WS: N/A

OTHER INFORMATION: Project visitation for FY 2010 totaled 180,322.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: North Fork of Pound River Lake, VA

AUTHORIZATION: Section 4 of Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: North Fork of Pound River Lake is located in Wise County, VA, on the North Fork of the Pound River. The Pound River is a tributary of the Russell Fork of the Levisa Fork of the Big Sandy River, 184 miles above the mouth of the Big Sandy River and 1.1 miles above the mouth of North Fork of Pound River. The lake is impounded by a rockfill dam with central impervious core with a height of 122 feet and length measuring 600 feet. The dam was completed in January 1966.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$53,000

ALLOCATION FOR FY 2011: \$668,000

BUDGET FOR FY 2012: M: \$0 O: \$486,000 T: \$486,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: \$362,000 – Funding provides for routine operations and maintenance for flood and coastal storm damage reduction, including required inspections to enhance the quality of American life by reducing flood risk to both life and property, providing benefits to individuals, communities, and the national economy.

Rec: \$99,000 – Funding provides for routine operations and maintenance to provide recreational opportunities to the public to enhance the quality of American life by providing benefits to individuals, communities, the national economy, and the environment.

Hydro: N/A

ES: N/A

WS: \$25,000 – Funding provides for routine operations and maintenance for water supply to provide an estimated 0.3 million gallons per day of water supply for the health, safety and economy of approximately 1,000 citizens for the Town of Pound, VA.

OTHER INFORMATION: North Fork of Pound River Lake project has prevented over \$15,000,000 in damages over the course of its operation. Project visitation for FY 2010 totaled 105,254.

Division: Great Lakes and Ohio River

District: Huntington

North Fork of Pound River Lake, VA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Ohio River Locks and Dams, WV, KY & OH

AUTHORIZATION: River and Harbor Acts of 1909 (P.L. 60-317) and 1935 (P.L. 74-409)

LOCATION AND DESCRIPTION: Ohio River Locks and Dams is located in WV, KY and OH and begins 127 miles downstream from Pittsburgh, PA (mile 127) and continues to mile 438 on the Ohio River. The project includes Willow Island, Belleville, Racine, Robert C. Byrd, Greenup, and Captain Anthony Meldahl Locks and Dams which are the six locks within the Huntington District located on the Ohio River.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$4,544,000

ALLOCATION FOR FY 2011: \$34,802,000

BUDGET FOR FY 2012: M: \$17,606,000 O: \$16,626,000 T: \$34,232,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$34,008,000 – Funding provides for routine operations and maintenance for navigation, including required inspections to provide safe, reliable, efficient, effective, and environmentally sustainable waterborne transportation systems for movement of commerce, national security needs, and recreation; critical fleet maintenance to accomplish the installation of the second set of replacement miter gates at Meldahl to increase reliability for inland navigation, the dewatering and inspection of the Greenup lock in preparation for the installation of new miter gates, replacing the dam tainter gate trunnion pins at Greenup, rehabilitating the fill and empty valves at Greenup, and rehabilitating the miter gate structure, seals, and contacts for the auxiliary chamber at Willow Island; completion of fabrication of the second set of replacement miter gates at Greenup to reduce the risk of failure; continuation of the major rehabilitation report for the dam at Greenup; performance of a failure mode effects analysis to help prevent failure of critical components at Ohio River locks and dams; procurement of critical parts for all Ohio River locks and dams; and continuation of the Inland Waterways Transportation Economics effort, to ensure that resources are applied to the most critical projects throughout the Ohio River basin. These efforts will ensure that failed and inadequate components are restored and maintained at an adequate level of operation.

FRM: N/A

Rec: \$213,000 – Funding provides for routine operations and maintenance to provide recreational opportunities to the public to enhance the quality of American life by providing benefits to individuals, communities, the national economy, and the environment.

Hydro: N/A

ES: \$11,000 – Funding provides for routine operations and maintenance for environmental stewardship to provide management of natural and cultural resources to achieve healthy, sustainable conditions, and foster healthy lands and waters by balancing public uses and needs.

WS: N/A

OTHER INFORMATION: The 5 year average tonnage of commodities transported on this waterway exceeds 104,000,000. Project visitation for FY 2010 totaled 905,317.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Ohio River Locks & Dam, KY, IL, IN & OH

AUTHORIZATION: 1909 Act (P.L. 60-317), Rivers & Harbor Appropriation Action of 1910
(P.L. 61-264)

LOCATION AND DESCRIPTION: The Louisville District is responsible for eight locks and dams in the Ohio River System starting with Markland at river mile 531.5 and ending with Locks and Dam 53 at river mile 962.6. Locks and Dams 52 and 53 are low-lift wicket dams. Markland, McAlpine, Cannelton, Newburgh, John T. Myers and Smithland locks and dams are modern high lift projects between forty and fifty years old.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$1,551,500

ALLOCATION FOR FY2011: \$31,433,000

BUDGET FOR FY2012: M: \$11,099,000 **O:** \$22,366,000 **T:** \$33,465,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2012:

N: \$33,465,000 - The Navigation line item contains the funding for routine operation and maintenance for the locks and dams; critical maintenance performed by the Louisville Repair Station, the navigation portion of joint costs for Engineering, Construction, Real Estate Divisions as well as District Office overhead costs. These funds maintain our navigation project availability and reliability. This level of funding covers bare-bones operation. The Repair Station is scheduled to perform maintenance at Markland, McAlpine, John T. Myers, Newburgh and Smithland Locks and Dams in FY2011 with O&M funds.

FRM: \$0 - N/A

Rec: \$15,000 - The Recreation line item funds the mowing and maintenance of the visitor areas and boat ramps at the locks and dams referenced above.

Hydro: \$0 - N/A

ES: \$81,000 - The Environmental Stewardship line item funds the water quality, endangered species, and cultural resources activities on the Ohio River for the above referenced locks and dams. These activities are mandated by USACE regulations and policies.

WS: \$0 - N/A

OTHER INFORMATION: Some of the highest tonnage on the inland waterways passes through the Louisville District locks with Locks and Dam 52 averaging over 90 million tons per year. The Olmsted Locks and Dams construction project will eventually replace Locks and Dams 52 and 53. The new miter gates are scheduled to be installed at Markland Locks and Dam in 2011 and the Repair Station will perform this work with funds from the Construction account for the Markland Major Rehab Project.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Ohio River Locks and Dams, PA, OH, and WV

AUTHORIZATION: Rivers and Harbors Act dated 1909 and 1918

LOCATION AND DESCRIPTION: Project consists of the navigable portion of the Ohio River from the Point at Pittsburgh, PA for 127.2 miles of the river downstream to New Martinsville, WV. Commercial and recreational navigation is provided from six locks and dams which are Emsworth, Dashields, Montgomery, New Cumberland, Pike Island, and Hannibal within the 127.2 mile reach of river.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$9,227,453

ALLOCATION FOR FY2011: \$28,023,000

BUDGET FOR FY2012: M: \$7,893,000 O: \$15,247,000 T: \$23,140,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$23,140,000 – Operate and maintain 127.2 miles of navigable river including six navigation locks and dams. Dewater Dashields lock to inspect and repair gates, valves, and operating machinery. Install floating mooring bits at New Cumberland. Repair filing valves and install renovated 56 foot miter gates upstream, auxiliary chamber and upper guard wall at Emsworth. Emergency repairs to dam lift gates at Montgomery. Renovate work boat mooring area at Dashields. Correct gate and valve interlock problems at Ohio River locks. Trunnion anchorage testing at New Cumberland, Pike Island and Hannibal.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Project provides approximately 127.2 miles of navigable river including six navigation facilities. Emsworth is a Dam Safety Action Class (DSAC) I rated dam and Montgomery Dam is a DSAC II rated dam. The six locks and dam structures on the Ohio River have an average age of 62 years (81 years for the upper three locks and 42 years for the lower three locks). The project funds the operation and maintenance of the three oldest structures on the mainstem of the Ohio River. These structures are currently being studied for major capital improvements under the Upper Ohio Navigation Study.

Division: Great Lakes and Ohio River

District: Pittsburgh

Ohio River Locks and Dams,
PA, OH, & WV

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Ohio River Open Channel Work, WV, KY & OH

AUTHORIZATION: River and Harbor Acts of 1909 (P.L. 60-317) and 1935 (P.L. 74-409)

LOCATION AND DESCRIPTION: Ohio River Open Channel Work, WV, KY and OH begins 127 miles downstream from Pittsburgh, PA (mile 127) and continues to mile 438 on the Ohio River. The project requires dredging annually to maintain its authorized depth of nine feet.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$0

ALLOCATION FOR FY 2011: \$3,088,000

BUDGET FOR FY 2012: M: \$2,805,000 O: \$0 T: \$2,805,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$2,805,000 – Funding provides for routine operations and maintenance for navigation to maintain the minimum project dimensions.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: If the mainstem channel is not dredged annually, it will silt in and commercial traffic would be drastically impacted. This would have a detrimental impact on the commercial and navigation industry. The 5 year average tonnage of commodities transported on this waterway exceeds 104,000,000.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Ohio River Open Channel Work, KY, IL, IN & OH

AUTHORIZATION: River and Harbors Act of 1827

LOCATION AND DESCRIPTION: This project consists of the Ohio River channel from Mile 438, at Foster, KY to Mile 981, at Cairo, IL, and is maintained by the Louisville District. Work under this project consists of channel condition surveys, navigation chart updates, channel maintenance dredging, and other activities necessary to support the work.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$2,919,800

ALLOCATION FOR FY2011: \$5,682,000

BUDGET FOR FY2012: M: \$5,582,000 **O:** \$0 **T:** \$5,582,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2012:

N: \$5,582,000 - Funds will be used to perform annual channel condition surveys, in order to identify areas of sediment deposit which decrease channel depths to less than the authorized dimensions. Areas requiring dredging will be dredged by contract, with after dredge surveys to verify satisfactory completion of the work. Other work to be performed includes updates of navigation charts, coordination with federal and state wildlife agencies regarding environmental impacts and mitigation measures, and state water quality certification.

FRM: \$0 - N/A

Rec: \$0 - N/A

Hydro: \$0 - N/A

ES: \$0 - N/A

WS: \$0 - N/A

OTHER INFORMATION: N/A

Division: Great Lakes and Ohio River

District: Louisville

Ohio River Open Channel
Work, KY, IL, IN & OH

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Ohio River Open Channel Works, PA, OH, & WV

AUTHORIZATION: Rivers and Harbors Act dated 1909 and 1918

LOCATION AND DESCRIPTION: The project is located along the Ohio River from its beginning at the confluence of the Monongahela and Allegheny Rivers, Pittsburgh, PA to river mile 127.2 at New Martinsville, WV. Ohio River has an authorized navigation channel depth of nine (9) feet. This project includes dredging activities necessary to maintain the authorized navigation channel depth ensuring commercial navigation. The six locks and dams are Emsworth, Dashields, Montgomery, New Cumberland, Pike Island, and Hannibal.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$ 0

ALLOCATION FOR FY2011: \$ 633,000

BUDGET FOR FY2012: M: \$ 626,000 O: \$ 0 T: \$ 626,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$626,000 - Routine maintenance removal of sediment, debris, and drift to maintain an authorized navigation channel between the six upper Ohio River navigation facilities.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: N/A

Division: Great Lakes and Ohio River

District: Pittsburgh

Ohio River Open Channel Works,
PA, OH, & WV

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Ohio-Mississippi Flood Control, Ohio

AUTHORIZATION: Section 7 of the FCA of 1944, P.L. 74-58 (58 Stat. 890; 33 U.S.C. 709)

LOCATION AND DESCRIPTION: This project funds the execution of Section 7 of the 1944 Flood Control Act which directs the Corps to conduct lower Ohio/Mississippi Rivers flood control for the primary purpose of protecting the Mississippi River levee system, including the direction of both Corps and Tennessee Valley Authority reservoirs.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$0

ALLOCATION AMOUNT FOR FY2011: \$1,722,000

BUDGET FOR FY2012: M: \$0 O: \$1,993,000 T: \$1,993,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: \$1,993,000 - Funding will continue to provide coordinated regional water control management and maintain operational capabilities to perform Flood Risk Management mission and improve flood prediction forecasting, warning and reservoir management through development of new system-wide hydraulic and hydrologic models and technology and physical improvements to the Reservoir Control Center. Other measures includes all policy and technical activities employed in river and reservoir regulation including computer modelling, satellite data collection system, computer and hardware systems, reservoir system analysis, and policy interpretation and implementation and direction of lower Ohio and Mississippi River flood control operations. This project returns on average \$18 million of flood damage reduction benefits for every \$1 million spent.

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: N/A

Division: Great Lakes and Ohio River

District: N/A

Ohio-Mississippi Flood Control, OH

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Old Hickory Lock and Dam, TN

AUTHORIZATION: River and Harbor Act 1946

LOCATION AND DESCRIPTION: Old Hickory Lock and Dam is located in Metropolitan Nashville Davidson County, TN. The project consists of an 84' by 400' lock, concrete gravity and earth fill dam, hydropower plant and recreation and stewardship areas.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$3,231,413

ALLOCATION FOR FY 2011: \$8,237,000

BUDGET FOR FY 2012: M: \$596,000 O: \$7,510,000 T: \$8,106,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$3,005,000 - Funding provides for routine operations & maintenance for navigation; critical fleet maintenance; navigation joints costs for data acquisition for dam safety, FRM operations and Real Estate to resolve encroachments. Funds would improve navigation performance by providing maintenance of locks and channels, thus reducing industry delays.

FRM: N/A.

Rec: \$1,184,000 - Funding provides for critical health and safety maintenance and services at minimally acceptable levels for designated recreation areas, including access points, overlooks, day use areas and campgrounds.

Hydro: \$3,312,000 – Funding provides for routine operations and maintenance for hydroelectric power plant and hydropower joint costs for operation and maintenance of the dam. Funds would allow power plant and dam to accomplish missions of providing low cost reliable electric power by maintaining high availability and peak availability and maintain control of the river.

ES: \$572,000 - Funding provides for the management of natural resources including operation, safety, environmental compliance, maintenance of the project boundary line, shoreline management, and cultural resources. These funds will assure sustainability of natural resources in accordance with the Corps Environmental Operating Principles and stewardship policies and prevent loss and degradation of more than 34,000 acres to project lands and water.

WS: \$33,000 - Funding provides for evaluating all new intake requests' impacts to navigation. System wide operation of Cumberland River requires maintaining a water supply database.

OTHER INFORMATION: Old Hickory Lock processed an average of 4,200,000 tons of waterborne commerce annually from 2000 to 2004. Coal and industrial chemicals are dominant commodities. Shippers realize average annual transportation cost savings of more than \$27,400,000. Navigation through Old Hickory Lock is the only coal fuel source for one of TVA's major electric generating stations, Gallatin Steam Plant. Hydropower plant generates 482,000 MWH of energy annually, which is enough supply for 40,200 homes. Ranks #3 in USACE for recreation with 9,001,000 project visits in FY09 with an associated \$201,060,000 in trip spending.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Paint Creek Lake, OH

AUTHORIZATION: Section 4 of Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Paint Creek Lake is located in Ross and Highland Counties, OH, a tributary of the Scioto River. It is 36.8 miles above the mouth of Paint Creek and 100 miles above the mouth of the Scioto River. The lake is impounded by an earth and rock fill dam with a central impervious core. Its maximum height is 118 feet with a top length of 700 feet with a gated spillway. The dam was completed in 1974.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$801,000

ALLOCATION FOR FY 2011: \$1,297,000

BUDGET FOR FY 2012: M: \$281,000 O: \$1,459,000 T: \$1,740,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: \$1,431,000 – Funding provides for routine operations and maintenance for flood and coastal storm damage reduction, including required inspections to enhance the quality of American life by reducing flood risk to both life and property, providing benefits to individuals, communities, and the national economy; and Interim Risk Reduction Measures including performing a dam safety exercise, improving access to the downstream area, adding instrumentation, and performing relief well maintenance.

Rec: \$241,000 – Funding provides for routine operations and maintenance to provide recreational opportunities to the public to enhance the quality of American life by providing benefits to individuals, communities, the national economy, and the environment.

Hydro: N/A

ES: \$37,000 – Funding provides for routine operations and maintenance for environmental stewardship to provide management of natural and cultural resources to achieve healthy, sustainable conditions, and foster healthy lands and waters by balancing public uses and needs.

WS: \$31,000 – Funding provides for routine operations and maintenance for water supply to provide an estimated 4 million gallons per day of water supply for the health, safety and economy of approximately 6,000 citizens in Highland and Bourneville Counties, OH.

OTHER INFORMATION: Paint Creek Lake has prevented over \$118,000,000 in damages over the course of its operation. Project visitation for FY 2010 totaled 1,014,463.

Division: Great Lakes and Ohio River

District: Huntington

Paint Creek Lake, OH

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Paintsville Lake, KY

AUTHORIZATION: Section 204 of Flood Control Act of 1965 (P.L. 89-298)

LOCATION AND DESCRIPTION: Paintsville Lake is located in Johnson County, KY, 7.8 miles above the mouth of Paint Creek, and about 4 miles west of Paintsville. The lake is impounded by a rock fill dam with a central impervious core. Its maximum height is 160 feet above the streambed, and the crest length is approximately 1,600 feet with a crest elevation of 757 feet, mean sea level. The dam was completed in May 1984.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$1,186,000

ALLOCATION FOR FY 2011: \$1,361,000

BUDGET FOR FY 2012: M: \$28,000 O: \$1,167,000 T: \$1,195,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: \$896,000 – Funding provides for routine operations and maintenance for flood and coastal storm damage reduction, including required inspections to enhance the quality of American life by reducing flood risk to both life and property, providing benefits to individuals, communities, and the national economy.

Rec: \$184,000 – Funding provides for routine operations and maintenance to provide recreational opportunities to the public to enhance the quality of American life by providing benefits to individuals, communities, the national economy, and the environment.

Hydro: N/A

ES: \$77,000 – Funding provides for routine operations and maintenance for environmental stewardship and initiate the Natural Resource Level 1 vegetation inventories to provide management of natural and cultural resources to achieve healthy, sustainable conditions, and foster healthy lands and waters by balancing public uses and needs.

WS: \$38,000 – Funding provides for routine operations and maintenance for water supply to provide an estimated 6 million gallons per day of water supply for the health, safety and economy of Johnson County, KY and large portions of adjacent counties.

OTHER INFORMATION: Paintsville Lake has prevented over \$19,000,000 in damages over the course of its operation. Project visitation for FY 2010 totaled 1,020,300.

Division: Great Lakes and Ohio River

District: Huntington

Paintsville Lake, KY

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Patoka Lake, IN

AUTHORIZATION: Flood Control Act of 1965 (P.L. 89-298)

LOCATION AND DESCRIPTION: Patoka Lake is located in southern Indiana about 13 miles northeast of Jasper, Indiana and 118.3 miles above the mouth of the Patoka River. It is located about 95 miles south of Indianapolis, Indiana. The lake lies in portions of Dubois, Orange, and Crawford counties in Indiana. The dam is earth and rock fill with gate controlled outlet works and uncontrolled open spillway and is 84 ft high and 1,550 ft long. The project was authorized as a multi-purpose flood control project with additional authorized responsibilities for recreation management, environmental stewardship, water supply and water quality. The lake is managed as a P.L. 89-72 project.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$60,000

ALLOCATION FOR FY2011: \$980,000

BUDGET FOR FY2012: M: \$51,000 **O:** \$1,067,000 **T:** \$1,118,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2012:

N: \$0 - N/A

FRM: \$1,007,000 – Funding provides for routine operation and maintenance of the dam, outlet works and related infrastructure. These funds support execution of our mission to prevent damages to flood-prone areas, property and communities in the floodway, as well as the destructive impacts of floods on human activities within those areas. Critical dam safety programs and activities are also supported with these funds.

Rec: \$40,000 – Funding provides for minimal health and safety needs at day-use recreation areas and overlook facilities. These funds support public visitation by providing safe recreation facilities, healthy recreation experiences, and visitor assistance and protection, as well as for real estate functions to support recreation management by other lessees, agencies and partners.

Hydro: \$0 - N/A

ES: \$65,000 – Funding provides for performance of environmental stewardship activities which protects the health, sustainability and integrity of the public lands associated with this project. Activities include natural resource management practices, environmental evaluations and reviews, shoreline protection, cultural resource investigations, water quality control, boundary line inspection, and encroachment resolution.

WS: \$6,000 – Funding provides for performance of annual activities required to support the negotiation, revision and/or coordination of water supply contracts, and addresses local and congressional interests and concerns for water needs affecting public health and welfare.

OTHER INFORMATION: FY2009 flood damages prevented were \$18.58M, FY2009 recreation visits were 650K, and FY2009 visitor expenditures were \$17.22M.

Division: Great Lakes and Ohio River

District: Louisville

Patoka Lake, IN

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Punxsutawney, PA

AUTHORIZATION: Flood Control Act of 28 June 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: The project is located at Punxsutawney, in Jefferson County, PA, on Mahoning Creek, 52 miles above its mouth and 30 miles above Mahoning Creek Lake Dam. Punxsutawney, PA is a local flood protection project. Provides flood protection by channel enlargement, dikes and walls. Improvement is designed to accommodate discharges 20% greater than that of maximum flood of record.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$ 0

ALLOCATION FOR FY2011: \$ 22,000

BUDGET FOR FY2012: M: \$ 0 O: \$ 63,000 T: \$63,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: \$63,000 - Assure safety, structure, integrity and operational adequacy through inspection of the project.

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: This project supports approximately 7 jobs, and has prevented more than \$98,684,000 in damage since its completion in 1940.

Division: Great Lakes and Ohio River District: Pittsburgh

Punxsutawney, PA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: R. D. Bailey Lake, WV

AUTHORIZATION: Section 203 of Flood Control Act of 1962 (P.L. 87-874)

LOCATION AND DESCRIPTION: R. D. Bailey Lake is located on the Guyandotte River in Mingo and Wyoming Counties in WV approximately 112 miles above the mouth of the Guyandotte River and about 1 mile northeast of the community of Justice. The lake is impounded by a random and rock fill dam with a concrete face. The maximum height is 310 feet, and the top length of the dam is 1,397 feet. The dam was completed in 1980.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$1,530,000

ALLOCATION FOR FY 2011: \$2,237,000

BUDGET FOR FY 2012: M: \$9,000 O: \$2,398,000 T: \$2,407,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: \$1,605,000 – Funding provides for routine operations and maintenance for flood and coastal storm damage reduction to enhance the quality of American life by reducing flood risk to both life and property, providing benefits to individuals, communities, and the national economy.

Rec: \$759,000 – Funding provides for routine operations and maintenance to provide recreational opportunities to the public to enhance the quality of American life by providing benefits to individuals, communities, the national economy, and the environment.

Hydro: N/A

ES: \$43,000 – Funding provides for routine operations and maintenance for environmental stewardship to provide management of natural and cultural resources to achieve healthy, sustainable conditions, and foster healthy lands and waters by balancing public uses and needs.

WS: N/A

OTHER INFORMATION: R. D. Bailey Lake has prevented over \$190,000,000 in damages over the course of its operation. Project visitation for FY 2010 totaled 398,881.

Division: Great Lakes and Ohio River

District: Huntington

R. D. Bailey Lake, WV

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Rochester Harbor, NY

AUTHORIZATION: River & Harbor Acts of 1829, 1882, 1910 (P.L. 60-317), 1935 (P.L. 74-409), 1945 (P.L. 79-14) and 1960 (P.L. 86-645)

LOCATION AND DESCRIPTION: Rochester Harbor is a deep draft commercial harbor located on Lake Ontario in the city of Rochester, Monroe County, NY, whose authorized depths are 24 feet in the approach channel, 23 feet in the entrance channel and 21 feet in the Genesee River.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$0

ALLOCATION FOR FY2011: \$56,000

BUDGET FOR FY2012: M: \$0 **O:** \$5,000 **T:** \$5,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2012:

N: N/A

FRM: N/A

Rec: \$5,000 - Funding provides for public visitation tracking to monitor and evaluate the public use of the West Pier. The data collected will be used to justify future recreation funding to improve public access and recreation features and/or operations and maintenance funding to operate, maintain and repair the navigation structure.

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: The project provides maintained deep draft navigation channels that facilitate the movement of goods and materials to and from commercial docks. Major stakeholders include the Rochester-Monroe County Port Authority, Port of Rochester, U.S. Coast Guard, Essroc Cement Corporation and Shellet-Genesee Shipping Group. Bulk commodities that pass through Rochester Harbor generate approximately \$2,073,000 annually in direct revenue. Navigation structures with recreation features (i.e. walkway) are often heavily used by the public for a variety of reasons, including: access to the waterfront, fishing, and/or location next to an existing public park. The west pier can be accessed from the adjacent Ontario Beach Park.

Division: Great Lakes and Ohio River

District: Buffalo

Rochester Harbor, NY

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Roseville Local Protection Project, OH

AUTHORIZATION: Section 4 of the Flood Control Act (FCA) of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Roseville Local Protection Project is located in the Village of Roseville, OH, on the Moxahala Creek, a tributary of the Muskingum River, about 9.5 miles southwest of Zanesville, OH. The protection works consist of 7,291 lineal feet of channel improvement, 5,500 lineal feet of levee, a pump station to prevent flooding from internal drainage, and 4 gatewells on outfall sewers that empty into Moxahala Creek. The new channel has a 60 foot bottom width and side slopes of 1 vertical to 2 horizontal, except along the levee where the slopes are 1 to 2.5.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$0

ALLOCATION FOR FY 2011: \$35,000

BUDGET FOR FY 2012: M: \$0 O: \$35,000 T: \$35,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: \$35,000 – Funding provides for routine operations and maintenance for flood and coastal storm damage reduction to maintain a clear channel and reduce flood damages.

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Roseville Local Protection Project has prevented over \$1,000,000 in damages over the course of its operation.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Rouge River, MI

AUTHORIZATION: Rivers and Harbors Acts of 1917, 1935, 1958, 1962

LOCATION AND DESCRIPTION: The Rouge River originates in Oakland and Washtenaw Counties in southeast Michigan. The river is 30 miles long and flows southeast through Wayne County and joins the Detroit River at the westerly limit of the city of Detroit. The navigation channel is located on the lower 2 ½ miles of the river. The project provides for a navigation channel with depths varying from 21 feet in the cut-off channel and 18 to 15 feet in the old Rouge channel. Maintenance dredging is required on a two to three year cycle and was last completed in 2008. Dredged material is placed in the Pointe Mouillee Disposal Facility.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$0

ALLOCATION FOR FY 2011: \$0

BUDGET FOR FY 2012: M: \$900,000 O: \$60,000 T: \$960,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$960,000 – Funding provides for routine operations and maintenance for navigation, including project condition surveys and dredging by contract to provide minimum functional depth at the most critical reaches of the navigation channel. The Rouge River handles over 11 million tons of cargo annually, and annual shoaling can result in a loss of available channel depth between one and two feet which results in increased transportation costs of between \$3.8 million and \$8.3 million.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Rough River Lake and Channel Improvement, KY

AUTHORIZATION: Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Rough River Lake is located in Breckinridge, Hardin and Grayson counties in south central Kentucky. The dam is located on the Rough River, 89.3 miles above its confluence with the Green River, near the community of Falls of Rough, approximately 20 miles from Leitchfield and 95 miles southwest of Louisville. The dam is rolled earth and rockfill type, with gate-controlled outlet works and is 130 ft high and 1,590 ft long. The project was authorized as a multi-purpose flood control project with additional authorized responsibilities for recreation management, environmental stewardship, water supply and water quality. The lake is managed as a P.L. 89-72 project.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$2,151,900

ALLOCATION FOR FY2011: \$2,606,000

BUDGET FOR FY2012: M: \$ 0 **O:** \$2,514,000 **T:** \$2,514,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2012:

N: \$0 - N/A

FRM: \$1,621,000 – Funding provides for routine operation and maintenance of the dam, outlet works and related infrastructure. These funds support execution of our mission to prevent damages to flood-prone areas, property and communities in the floodway, as well as the destructive impacts of floods on human activities within those areas. Critical dam safety programs and activities are also supported with these funds.

Rec: \$600,000 – Funding provides for routine operation and maintenance of day-use and overnight recreation areas, facilities and features. These funds support management of the recreation program and public visitation by providing safe recreation facilities, healthy recreation experiences, and visitor assistance and protection, as well as for real estate functions to support recreation management by other lessees, agencies and partners.

Hydro: \$0 - N/A

ES: \$275,000 – Funding provides for performance of environmental stewardship activities which protects the health, sustainability and integrity of the public lands associated with this project. Activities include natural resource management practices, environmental evaluations and reviews, shoreline protection, cultural resource investigations, water quality control, boundary line inspection, and encroachment resolution.

WS: \$18,000 – Funding provides for performance of annual activities required to support the negotiation, revision and/or coordination of water supply contracts, and addresses local and congressional interests and concerns for water needs affecting public health and welfare.

OTHER INFORMATION: FY2009 flood damages prevented were \$15.50M, FY2009 recreation visits were 1.5M, and FY2009 visitor expenditures were \$32.49M.

Division: Great Lakes and Ohio River

District: Louisville

Rough River Lake and Channel
Improvement, KY

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Saginaw River, MI

AUTHORIZATION: Rivers and Harbors Act of 1910, as amended

LOCATION AND DESCRIPTION: Saginaw River is a deep draft commercial harbor formed by the union of the Tittabawassee and Shiawassee Rivers, is 22 miles long, and flows north into the south end of Saginaw Bay in Lake Huron. The cities of Saginaw and Bay City are located on the river. Project depths vary from 27 feet in the Saginaw Bay entrance channel to 22 to 26 feet in the Saginaw River channel. There are a total of 26 miles of Federal channels and 5 turning basins. The project requires maintenance dredging on an annual basis, with dredged material from the bay channels placed in the Saginaw Bay confined disposal facility (CDF) which has a remaining capacity of approximately five years. Material removed from the upper river channel is placed in the new Upper Saginaw dredged material disposal facility which has sufficient capacity for the next 25 years.

RECOVERY ACT ALLOCATIONS AS OF 31 DECEMBER 2010: \$2,360,000

ALLOCATION FOR FY 2011: \$3,190,000

BUDGET FOR FY 2012: M: \$0 O: \$550,000 T: \$550,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$550,000 – Funding provides for initiation of dredged material management plan activities and testing/monitoring at the Upper Saginaw Dredged Material Disposal Facility. The Saginaw Bay Confined Disposal Facility is used for disposal of material dredged from the navigation channels located in Saginaw Bay, and less than five years of capacity remains at that facility. The Upper Saginaw facility provides for disposal of materials removed from the upper river portion of the navigation channels. Saginaw River handles over 5 million tons annually, and a loss of one to two feet of channel depth due to annual shoaling can result in increased transportation costs from \$1 million to \$3 million.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Salamonie Lake, IN

AUTHORIZATION: Flood Control Act of 1958 (P.L. 85-500)

LOCATION AND DESCRIPTION: Salamonie Lake is located in north central Indiana about 34 miles southwest of Ft. Wayne. The dam site is at mile 3.1 on the Salamonie River, a tributary of the Wabash River. The project lies in Wabash and Huntington counties. The dam is earthfill with gate controlled outlet works and uncontrolled open spillway and is 133 ft high and 6,100 ft long. The project was authorized as a multi-purpose flood control project with additional authorized responsibilities for recreation management, environmental stewardship, and water quality.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$53,300

ALLOCATION FOR FY2011: \$1,012,000

BUDGET FOR FY2012: M: \$0 **O:** \$1,073,000 **T:** \$1,073,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2012:

N: \$0 - N/A

FRM: \$975,000 – Funding provides for routine operation and daily maintenance of the dam, outlet works and related infrastructure. These funds support execution of our mission to prevent damages to flood-prone areas, property and communities in the floodway, as well as the destructive impacts of floods on human activities within those areas. Critical dam safety programs and activities are also supported with these funds.

Rec: \$40,000 – Funding provides for routine operation and maintenance of day-use recreation areas, facilities and features. These funds support management of the recreation program and public visitation by providing safe recreation facilities, healthy recreation experiences, and visitor assistance and protection, as well as for real estate functions to support recreation management by other lessees, agencies and partners.

Hydro: \$0 - N/A

ES: \$58,000 – Funding provides for performance of environmental stewardship activities which protects the health, sustainability and integrity of the public lands associated with this project. Activities include natural resource management practices, environmental evaluations and reviews, shoreline protection, cultural resource investigations, water quality control, boundary line inspection, and encroachment resolution.

WS: \$0 - N/A

OTHER INFORMATION: FY2009 flood damages prevented were \$17.46M, FY2009 recreation visits were 487K, and FY2009 visitor expenditures were \$11.86M.

Division: Great Lakes and Ohio River

District: Louisville

Salamonie Lake, IN

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Sebewaing River, MI

AUTHORIZATION: Rivers and Harbors Act of 1896

LOCATION AND DESCRIPTION: Sebewaing River is a shallow draft recreational navigation project and a flood and coastal storm damage reduction project located on Saginaw Bay in the thumb of Michigan on the west shore of Lake Huron, about 20 miles northeast of the mouth of the Saginaw River. The navigation project has a depth of eight feet with approximately 15,000 feet of maintained Federal channel. The dredged material has been placed in the Sebewaing Confined Disposal Facility, but that facility is currently very close to capacity. The flood and coastal storm damage reduction project includes approximately 11,000 feet of levees and 1,900 feet of floodwalls. The Operations and Maintenance of both the navigation portion and the flood control portion is a Federal responsibility.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$0

ALLOCATION FOR FY 2011: \$75,000

BUDGET FOR FY 2012: M: \$0 O: \$20,000 T: \$20,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: \$20,000 – Funding provides for support to annual Spring ice breaking activities required to alleviate ice jam related flooding.

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Shenango River Lake, PA

AUTHORIZATION: Flood Control Act of 28 June 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Shenango Dam is located on the Shenango River about 0.8 mile above Sharpsville, PA and about 34.2 miles above its junction with the Mahoning River near New Castle, PA, forming the Beaver River. The reservoir is located in Mercer County, PA, and Trumbull County, OH. Shenango River Lake is a multi-purpose reservoir.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$ 667,210

ALLOCATION FOR FY2011: \$ 2,496,000

BUDGET FOR FY2012: M: \$ 221,000 O: \$ 2,205,000 T: \$ 2,426,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: \$1,507,000 – Accomplish flood reduction mission by operation of the dam, water control management, dam safety inspections, required safety related analysis and studies, and real estate outgrant management. Complete critical repairs to the dam Limitorque Units.

Rec: \$815,000 – Operate and maintain recreation facilities that supports the full range of camping, swimming, boating, fishing, hunting, picnicking, and trails for hiking and nature interpretation. Also fulfills Corps requirements for visitor health and safety.

Hydro: N/A

ES: \$104,000 - Accomplish shoreline management, threatened/endangered species surveillance, cultural resource protection/preservation, invasive species eradication, and protection of natural resources. These funds will assure sustainability of natural resources in accordance with the Corps Environmental Operating Principles and stewardship policies and prevent loss and degradation to project lands and water.

WS: N/A

OTHER INFORMATION: This project supports approximately 175 jobs, and has prevented more than \$158,778,000 in damage since its completion in 1965. Average recreational visitors from 2005 through 2010 were 539,197 annually.

Division: Great Lakes and Ohio River District: Pittsburgh Shenango River Lake, PA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: St. Clair River, MI

AUTHORIZATION: Rivers and Harbors Act of Jul 1892, as amended

LOCATION AND DESCRIPTION: St. Clair River is one of the Great Lakes connecting channels that flows south from Lake Huron and discharges into Lake St. Clair. It is a deep draft commercial project with project depths ranging from 27 to 30 feet. St. Clair River serves the ports of Marysville, Marine City and St. Clair, MI, and includes approximately 44 miles of Federal channels. Maintenance dredging is required on a two to three year cycle, with the project last dredged in 2009. Dickinson Island confined disposal facility has provided a suitable placement site for all material dredged from the St. Clair River since 1980 and is anticipated to have sufficient capacity for at least 25 more years.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$382,593

ALLOCATION FOR FY 2011: \$1,233,000

BUDGET FOR FY 2012: M: \$455,000 O: \$188,000 T: \$643,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$643,000 – Funding provides for routine operations and maintenance for navigation including project condition surveys and strike removal by Government floating plant. Annual shoaling can result in a loss of available channel depth between one and two feet which results in increased transportation costs of between \$15 million and \$35 million. Commercial vessel operations and/or wave and ice action annually result in the dislodging of rock from channel bottoms, resulting in unsafe channel conditions for vessel movements.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: N/A

Division: Great Lakes and Ohio River

District: Detroit

St. Clair River, MI

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: St. Marys River, MI

AUTHORIZATION: Rivers and Harbors Act of 1870, as amended

LOCATION AND DESCRIPTION: St. Marys River is one of the Great Lakes connecting channels and is 63 miles long. The river flows southeast from the eastern end of Lake Superior into the northern end of Lake Huron along the border between the State of Michigan and the Province of Ontario, Canada. This deep draft commercial channel includes a total of 75 miles of maintained channels with depths varying from 27 to 29 feet in the St. Marys River, Lake Superior and Lake Huron approaches. This project also includes two active locks (one 110x1200ft chamber and one 80x800ft chamber, both with a 21 foot lift), two approach canals, a hydropower plant and a Visitor Center.

RECOVERY ACT ALLOCATIONS AS OF 31 DECEMBER 2010: \$3,300,000

ALLOCATION FOR FY 2011: \$22,074,000

BUDGET FOR FY 2012: M: \$7,663,000 O: \$18,368,000 T: \$26,031,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$23,406,000 – Funding provides for routine operation and maintenance of two active navigation locks, critical maintenance repairs to navigation channel guide walls by Government floating plant, project condition surveys, critical channel strike removal by Government floating plant, initiation of work to replace the facility compressed air system, and a portion of joint facility security/grounds maintenance. Funds ensure safe and reliable operation of the navigation locks and connecting channels located in the St. Marys River, which historically accommodate over 80 million tons of cargo annually. A one to two foot reduction in available draft due to any channel restrictions results in increased transportation costs of between \$5 million and \$14 million annually, and a thirty day closure of the Soo Locks can result in up to \$150 million in increased transportation costs.

FRM: N/A

Rec: \$342,000 - Funding provides for routine operation and maintenance of project visitor center and a portion of joint facility security/grounds maintenance. The visitor center and park accommodate an annual visitation in excess of 600,000 people and provides educational opportunities related to the locks and Corps of Engineers missions.

Hydro: \$2,172,000 – Funding provides for routine operation and maintenance of two hydropower facilities that house five generating units and a portion of joint facility security/grounds maintenance. These funds ensure the safe and reliable operation of the Federal hydropower plant with a 20 megawatt capacity that provides all of the power for operation of the Soo Locks complex and supports the base load for the area grid, meeting up to 20% of regional power demand.

ES: \$111,000 – Funding provides for annual activities associated with compliance with State and Federal historic preservation requirements.

WS: N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Stonewall Jackson Lake, WV

AUTHORIZATION: Flood Control Act of November 1966 (P.L. 89-789)

LOCATION AND DESCRIPTION: Stonewall Jackson Dam is on the West Fork River at Brownsville, WV, approximately 73.9 miles above its junction with the Tygart River at Fairmont, WV, where the two rivers form the Monongahela River. The lake is located entirely within Lewis County, WV. Stonewall Jackson Lake is a multi-purpose reservoir.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$ 77,095

ALLOCATION FOR FY2011: \$ 1,173,000

BUDGET FOR FY2012: M: \$ 21,000 O: \$ 1,043,000 T: \$ 1,064,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: \$960,000 - Accomplish flood reduction mission by operation of the dam, water control management, dam safety inspections, required safety related analysis and studies, and real estate outgrant management. Install pins on trash rack slings to restore ability to lift trash rack.

Rec: \$57,000 - Operate and maintain recreation facilities including a visitor center, fishing access, and leased lands to the state of WV for hunting, fishing, camping, and other recreation. Also fulfills Corps requirements for visitor health and safety.

Hydro: N/A

ES: \$40,000 - Accomplish shoreline management, threatened/endangered species surveillance, cultural resource protection/preservation, invasive species eradication, and protection of natural resources. These funds will assure sustainability of natural resources in accordance with the Corps Environmental Operating Principles and stewardship policies and prevent loss and degradation to project lands and water.

WS: \$7,000 – Management and oversight of water supply storage.

OTHER INFORMATION: This project supports approximately 165 jobs, and has prevented more than \$205,049,000 in damage since its completion in 1990. Benefits include flood protection, low flow augmentation for water quality, water supply, fish and wildlife enhancement, hydropower and recreation. Average recreational visitors from 2005 through 2010 were 580,366 annually.

Division: Great Lakes and Ohio River

District: Pittsburgh

Stonewall Jackson Lake, WV

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Sturgeon Bay Harbor & Lake Michigan Ship Canal, WI

AUTHORIZATION: Rivers and Harbors Act of 1873

LOCATION AND DESCRIPTION: Sturgeon Bay Harbor is located in Wisconsin on the west shore of Lake Michigan approximately 52 miles northeast of Green Bay and about 128 miles north of Milwaukee. Provides for deep draft commercial navigation with 8.5 miles of maintained navigation channel depths of 22 to 23 feet and at 20 feet within the turning basin. Project also includes approximately 15,100 feet of navigation structures, including breakwaters and revetments. Sturgeon Bay is home to two ship builders and a U.S. Coast Guard search and rescue operation.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$5,826,027

ALLOCATION FOR FY 2011: \$19,000

BUDGET FOR FY 2012: M: \$0 **O:** \$19,000 **T:** \$19,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: N/A

Rec: \$19,000 - Funding provides for maintenance of recreational features of this project, thereby ensuring access to parking areas and foot trails.

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Summersville Lake, WV

AUTHORIZATION: Section 4 of Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Summersville Lake is located in Nicholas County, WV, on the Gauley River, a tributary of the Kanawha River. It is 34.5 miles above the mouth of the Gauley River and 131.5 miles above the mouth of the Kanawha River. The dam is a rock fill with a central impervious core, a maximum height of 390 feet, and a top length of 2,280 feet. The dam was completed in 1966.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$1,268,000

ALLOCATION FOR FY 2011: \$2,376,000

BUDGET FOR FY 2012: M: \$360,000 O: \$2,332,000 T: \$2,692,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: \$1,814,000 – Funding provides for routine operations and maintenance for flood and coastal storm damage reduction, including required inspections to enhance the quality of American life by reducing flood risk to both life and property, providing benefits to individuals, communities, and the national economy; and for installation of the Howell Bunger Valve.

Rec: \$801,000 – Funding provides for routine operations and maintenance to provide recreational opportunities to the public to enhance the quality of American life by providing benefits to individuals, communities, the national economy, and the environment.

Hydro: N/A

ES: \$49,000 – Funding provides for routine operations and maintenance for environmental stewardship to provide management of natural and cultural resources to achieve healthy, sustainable conditions, and foster healthy lands and waters by balancing public uses and needs.

WS: \$28,000 – Funding provides for routine operations and maintenance for water supply to provide an estimated 4 million gallons per day of water supply for the health, safety and economy of approximately 12,000 citizens in Summersville, WV.

OTHER INFORMATION: Summersville Lake has prevented over \$632,000,000 in damages over the course of its operation. Project visitation for FY 2010 totaled 918,134.

Division: Great Lakes and Ohio River

District: Huntington

Summersville Lake, WV

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Sutton Lake, WV

AUTHORIZATION: Section 4 of Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Sutton Lake is located in Braxton County, WV, on the Elk River, a tributary of the Kanawha River. It is 100.4 miles above the mouth of the Elk River and 158.9 miles above the mouth of the Kanawha River. The lake is impounded by a concrete gravity dam with a maximum height of 210 feet, a top length of 1,178 feet, a top width of 20 feet, and a maximum base width of 195 feet. The dam was completed in 1961.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$2,852,000

ALLOCATION FOR FY 2011: \$3,075,000

BUDGET FOR FY 2012: M: \$4,000 O: \$2,583,000 T: \$2,587,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: \$1,735,000 – Funding provides for routine operations and maintenance for flood and coastal storm damage reduction to enhance the quality of American life by reducing flood risk to both life and property, providing benefits to individuals, communities, and the national economy.

Rec: \$824,000 –Funding provides for routine operations and maintenance to provide recreational opportunities to the public to enhance the quality of American life by providing benefits to individuals, communities, the national economy, and the environment.

Hydro: N/A

ES: \$28,000 – Funding provides for routine operations and maintenance for environmental stewardship to provide management of natural and cultural resources to achieve healthy, sustainable conditions, and foster healthy lands and waters by balancing public uses and needs.

WS: N/A

OTHER INFORMATION: Sutton Lake has prevented over \$375,000,000 in damages over the course of its operation. Project visitation for FY 2010 totaled 474,638.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Taylorsville Lake, KY

AUTHORIZATION: Flood Control Act of 1966 (P.L. 89-789)

LOCATION AND DESCRIPTION: The dam is located at mile 60.0 of the Salt River, a tributary of the Ohio River, approximately 40 miles southeast of Louisville, and 4 miles upstream from Taylorsville. All fee and easement property is located in Spencer, Nelson, and Anderson counties. The dam is earth and rockfilled, with gate controlled outlet works and uncontrolled open spillway and is 163 ft high and 1,280 ft long. The project was authorized as a multi-purpose flood control project with additional authorized responsibilities for recreation management, environmental stewardship, and water quality. The lake is managed as a P.L. 89-72 project.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$80,200

ALLOCATION FOR FY2011: \$1,232,000

BUDGET FOR FY2012: M: \$5,000 O: \$1,200,000 T: \$1,205,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2012:

N: \$0 - N/A

FRM: \$1,017,000 – Funding provides for routine operation and daily maintenance of the dam, outlet works and related infrastructure. These funds support execution of our mission to prevent damages to flood-prone areas, property and communities in the floodway, as well as the destructive impacts of floods on human activities within those areas. Critical dam safety programs and activities are also supported with these funds.

Rec: \$60,000 – Funding provides for minimal health and safety needs at day-use recreation areas and overlook facilities. These funds support public visitation by providing safe recreation facilities, healthy recreation experiences, and visitor assistance and protection, as well as for real estate functions to support recreation management by other lessees, agencies and partners.

Hydro: \$0 - N/A

ES: \$128,000 – Funding provides for performance of environmental stewardship activities which protects the health, sustainability and integrity of the public lands associated with this project. Activities include natural resource management practices, environmental evaluations and reviews, shoreline protection, cultural resource investigations, water quality control, boundary line inspection, and encroachment resolution.

WS: \$0 - N/A

OTHER INFORMATION: FY2009 flood damages prevented were \$9.66M, FY2009 recreation visits were 822K, and FY2009 visitor expenditures were \$18.37M.

Division: Great Lakes and Ohio River

District: Louisville

Taylorsville Lake, KY

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Tennessee River, TN

AUTHORIZATION: River and Harbor Act 1946

LOCATION AND DESCRIPTION: Formed by the junction of French Broad and Holston Rivers in eastern Tennessee, the river flows southwest into northern Alabama, in westerly course across north Alabama, to the northeast boundary of Mississippi, north across Tennessee and Kentucky, entering Ohio River at Paducah, Kentucky. Tennessee River navigation system has 10 locks and 780 miles of navigable channel. There are 150 terminals (13 municipal, 15 governments and 122 private). A total of 79 terminals have railroad connections. Principal commodities are petroleum products, stone, sand, gravel, coal, coke, grain, chemicals, iron and steel.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$23,893,655

ALLOCATION FOR FY2011: \$16,540,000

BUDGET FOR FY 2012: M: \$8,100,000 O: \$13,745,000 T: \$21,845,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$20,345,000 – funding provides for routine operations and maintenance for navigation; critical fleet maintenance support service; maintenance dredging and Kentucky Lock and Wilson Lock dewaterings. These funds would improve navigation performance by providing maintenance of locks and channels, restoring project dimensions to safe levels and preventing damage of vessels and destruction of the waterway environment.

FRM: N/A.

Rec: N/A

Hydro: N/A

ES: N/A.

WS: N/A.

OTHER INFORMATION: Tennessee River, transports 54,000,000 tons annually, is the most economic means of bulk material transport for 780 miles of navigation channel. The average age of locks is 58 years. There is considerable river use for military and rocket booster shipments and oversized components such as nuclear steam generators. The Tennessee Valley Authority heavily uses barge transportation to service hydroelectric, coal, steam and nuclear plants. The Power Service shop at Muscle Shoals performs maintenance on dam & lock components for multiple Corps of Engineers Districts.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Tionesta Lake, PA

AUTHORIZATION: Flood Control Act of 22 June 1936 (P.L. 74-738), as amended by Flood Control Act 28 June 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Tionesta Dam is located on Tionesta Creek, 1.17 miles above the junction of the creek with the Allegheny River at Tionesta, PA, and about 78 miles northeast of Pittsburgh, PA. The reservoir is located entirely in Forest County, PA. Tionesta Lake is a multi-purpose reservoir.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$583,997

ALLOCATION FOR FY2011: \$2,200,000

BUDGET FOR FY2012: M: \$267,000 O: \$2,154,000 T: \$2,421,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: \$1,839,000 - Accomplish flood reduction mission by operation of the dam, water control management, dam safety inspections, required safety related analysis and studies, and real estate outgrant management. Repair service gate babbit seals to restore ability to operate gates and make releases.

Rec: \$525,000 – Operate and maintain recreation facilities supporting boating, camping, fishing, hunting, picnicking, hiking and interpretation trails, and a visitor center. Also fulfills Corps requirements for visitor health and safety.

Hydro: N/A

ES: \$57,000 - Accomplish shoreline management, threatened/endangered species surveillance, cultural resource protection/preservation, invasive species eradication, and protection of natural resources. These funds will assure sustainability of natural resources in accordance with the Corps Environmental Operating Principles and stewardship policies and prevent loss and degradation to project lands and water.

WS: N/A

OTHER INFORMATION: This project supports approximately 238 jobs, and has prevented more than \$543,588,000 in damage since its completion in 1940. Average recreational visitors from 2005 through 2010 were 709,539 annually.

Division: Great Lakes and Ohio River District: Pittsburgh

Tionesta Lake, PA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Toledo Harbor, OH

AUTHORIZATION: River and Harbor Acts of 1910 (P.L. 60-317), 1935 (P.L. 74-409), 1950 (P.L. 81-516), 1954 (P.L. 83-780), 1958 (P.L. 85-500) and 1960 (P.L. 86-645)

LOCATION AND DESCRIPTION: Toledo Harbor is a deep-draft commercial harbor, located at the southwestern corner of Lake Erie, 110 miles west of Cleveland, OH and 42 miles south of Detroit, MI, whose authorized depths are 28 feet in the bay, 27 feet in the lower river and 25 feet in the upper river.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$947,603

ALLOCATION FOR FY2011: \$5,049,000

BUDGET FOR FY2012: M: \$5,415,000 **O:** \$567,000 **T:** \$5,982,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2012:

N: \$5,982,000 - Funding provides for routine operations and maintenance for navigation including project condition surveys, and dredging of the Maumee Bay and Maumee River. These funds would improve navigation performance by reducing unsafe navigation conditions within the harbor, vessel delays and transportation costs. The project condition surveys will determine the condition of the Federal navigation channel. The surveys will be used to plan and schedule maintenance activities and communicate the condition of Federal channels to navigation interests. The dredging will remove approximately 300,000 cubic yards of sediment from the Maumee River and 500,000 cubic yards of sediment from the Maumee Bay thereby improving the availability and reliability of the navigation channels and providing approximately \$12,200,000 in transportation cost savings to commercial shippers.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Toledo Harbor is the 50th leading U.S. port with 11,000,000 tons of material shipped or received in 2008, and is ranked 6th among the Great Lakes Ports. Major stakeholders include the Toledo-Lucas County Port Authority, City of Toledo, U.S. Coast Guard, St. Mary's Cement Inc., Midwest Terminals of Toledo International, Kuhlman, The Andersons Inc., ADM Grain Company, Hansen Mueller Co., BP Products North America, Inc., Center Terminal Company of Toledo, Middleport Terminal Inc., Seneca Petroleum Company, Sunoco MidAmerica M&R, CSX, Lafarge Cement, Arms Dock, and Ironhead Marine Inc. Toledo Harbor has direct access to inter-modal connections and also functions as a critical harbor of refuge. Cargo includes coal, petroleum, aggregates, metal products, limestone, grain, chemicals, iron ore, steel products, cement, ores, minerals and sugar.

Division: Great Lakes and Ohio River

District: Buffalo

Toledo Harbor, OH

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Tom Jenkins Dam, OH

AUTHORIZATION: Section 10 of Flood Control Act of 1944 (P.L. 78-534)

LOCATION AND DESCRIPTION: Tom Jenkins Dam is located in Athens County, OH, on the East Branch of Sunday Creek, a tributary of the Hocking River. It is 0.3 miles above the mouth of East Branch and 57.2 miles above the mouth of the Hocking River. The lake is impounded by a rolled earth fill dam with a maximum height of 84 feet and a top length of 944 feet. The dam was completed in 1950.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$43,000

ALLOCATION FOR FY 2011: \$603,000

BUDGET FOR FY 2012: M: \$0 O: \$655,000 T: \$655,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: \$558,000 – Funding provides for routine operations and maintenance for flood and coastal storm damage reduction to enhance the quality of American life by reducing flood risk to both life and property, providing benefits to individuals, communities, and the national economy.

Rec: \$65,000 – Funding provides for routine operations and maintenance to provide recreational opportunities to the public to enhance the quality of American life by providing benefits to individuals, communities, the national economy, and the environment.

Hydro: N/A

ES: \$7,000 – Funding provides for routine operations and maintenance for environmental stewardship to provide management of natural and cultural resources to achieve healthy, sustainable conditions, and foster healthy lands and waters by balancing public uses and needs.

WS: \$25,000 – Funding provides for routine operations and maintenance for water supply to provide an estimated 8 million gallons per day of water supply for the health, safety and economy of approximately 25,000 citizens in Athens and Morgan Counties, Ohio.

OTHER INFORMATION: Tom Jenkins Dam has prevented over \$26,000,000 in damages over the course of its operation. Project visitation for FY 2010 totaled 572,610.

Division: Great Lakes and Ohio River

District: Huntington

Tom Jenkins Dam, OH

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Tygart Lake, WV

AUTHORIZATION: Rivers and Harbors Act of 1935 (P.L. 74-409)

LOCATION AND DESCRIPTION: Tygart Dam is located on the Tygart River, in Taylor County, WV, about 23.1 miles above the mouth of the river at Fairmont, WV, about 2.25 miles above Grafton, WV, and about 78 miles south of Pittsburgh, PA. The lake is located in Taylor and Barbour Counties, WV. Tygart Lake is a multi-purpose reservoir.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$23,384

ALLOCATION FOR FY2011: \$1,434,000

BUDGET FOR FY2012: M: \$0 O: \$1,406,000 T: \$1,406,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: \$1,269,000 - Accomplish flood reduction mission by operation of the dam, water control management, dam safety inspections, required safety related analysis and studies, and real estate outgrant management.

Rec: \$68,000 – Operate and maintain recreation facilities to support boating, swimming, camping, fishing, hunting, picnicking, and hiking trails. Also fulfills Corps requirements for visitor health and safety.

Hydro: N/A

ES: \$62,000 - Accomplish shoreline management, threatened/endangered species surveillance, cultural resource protection/preservation, invasive species eradication, and protection of natural resources. These funds will assure sustainability of natural resources in accordance with the Corps Environmental Operating Principles and stewardship policies and prevent loss and degradation to project lands and water.

WS: \$ 7,000 – Management and oversight of water supply contract with City of Grafton, WV.

OTHER INFORMATION: This project supports approximately 158 jobs, and has prevented more than \$1,161,184,000 in damage since its completion in 1938. In addition to flood control, the Tygart project was also authorized for navigation and water supply purposes. During the summer and fall low-water season, Tygart releases additional water downstream to meet navigation water supply requirements on the Monongahela and upper Ohio River for commercial navigation. The increased flow also improves water quality and quantity for domestic and industrial use, recreation, aesthetics and aquatic life. Average recreational visitors from 2005 through 2010 were 432,368 annually.

Division: Great Lakes and Ohio River District: Pittsburgh

Tygart Lake, WV

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Union City Lake, PA

AUTHORIZATION: Flood Control Act of 23 October 1962 (P.L. 87-4)

LOCATION AND DESCRIPTION: Union City Dam is located on French Creek, about 73.9 miles upstream from its junction with the Allegheny River at Franklin, PA. The reservoir is located entirely in Erie County, PA. Union City Lake is a multi-purpose reservoir.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$6,505

ALLOCATION FOR FY2011: \$425,000

BUDGET FOR FY2012: M: \$0 O: \$390,000 T: \$390,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: \$347,000 - Accomplish flood reduction mission by operation of the dam, water control management, dam safety inspections, required safety related analysis and studies, and real estate outgrant management.

Rec: \$39,000 – Operate and maintain recreation facilities, including a picnic and fishing area. Also fulfills Corps requirements for visitor health and safety.

Hydro: N/A

ES: \$4,000 - Accomplish shoreline management, threatened/endangered species surveillance, cultural resource protection/preservation, and invasive species eradication and protection of natural resources. These funds will assure sustainability of natural resources in accordance with the Corps Environmental Operating Principles and stewardship policies and prevent loss and degradation to project lands and water.

WS: N/A

OTHER INFORMATION: This project supports approximately 16 jobs and has prevented more than \$74,926,000 in damages since its completion in 1971. Average recreational visitors from 2005 through 2010 were 30,299 annually.

Division: Great Lakes and Ohio River District: Pittsburgh

Union City Lake, PA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: West Fork of Mill Creek Lake, OH

AUTHORIZATION: Flood Control Act of 1946 (P.L. 79-526)

LOCATION AND DESCRIPTION: West Fork Lake is located in Hamilton County, Ohio. The dam is an earth embankment dam, 100 ft high and 1,100 ft long. The project was authorized as a multi-purpose flood control project with additional authorized responsibilities for recreation management, environmental stewardship, and water quality. In addition, it provides a reduction of pumping requirements at the barrier dam of the local protection works at Cincinnati. Recreational development is under lease agreement with the Hamilton County Park District Board.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$6,000

ALLOCATION FOR FY2011: \$750,000

BUDGET FOR FY2012: M: \$0 **O:** \$838,000 **T:** \$838,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2012:

N: \$0 - N/A

FRM: \$758,000 – Funding provides for routine operation and maintenance of the dam, outlet works and related infrastructure. These funds support execution of our mission to prevent damages to flood-prone areas, property and communities in the floodway, as well as the destructive impacts of floods on human activities within those areas. Critical dam safety programs and activities are also supported with these funds.

Rec: \$35,000 – Funding provides for routine operation and maintenance of day-use recreation areas, facilities and features. These funds support management of the recreation program and public visitation by providing safe recreation facilities, healthy recreation experiences, and visitor assistance and protection, as well as for real estate functions to support recreation management by other lessees, agencies and partners.

Hydro: \$0 - N/A

ES: \$45,000 – Funding provides for performance of environmental stewardship activities which protects the health, sustainability and integrity of the public lands associated with this project. Activities include natural resource management practices, environmental evaluations and reviews, shoreline protection, cultural resource investigations, water quality control, boundary line inspection, and encroachment resolution.

WS: \$0 - N/A

OTHER INFORMATION: FY2009 flood damages prevented were \$10.79M, FY2009 recreation visits were 1.13M, and FY 2009 visitor expenditures were \$20.18M.

Division: Great Lakes and Ohio River

District: Louisville

West Fork of Mill Creek Lake, OH

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: William H Harsha Lake, OH

AUTHORIZATION: Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: William H Harsha Lake is located in Clermont County, Ohio. The dam is earthfill with outlet works, a separate saddle dam and spillway. The dam is 200 ft high and 1,450 ft long. The Saddle Dam is 100 ft high and 2,600 ft long. The project was authorized as a multi-purpose flood control project with additional authorized responsibilities for recreation management, environmental stewardship, water supply and water quality.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$61,200

ALLOCATION FOR FY2011: \$1,611,000

BUDGET FOR FY2012: M: \$12,000 **O:** \$1,057,000 **T:** \$1,069,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2012:

N: \$0 - N/A

FRM: \$873,000 – Funding provides for routine operation and maintenance of the dam, outlet works and related infrastructure. These funds support execution of our mission to prevent damages to flood-prone areas, property and communities in the floodway, as well as the destructive impacts of floods on human activities within those areas. Critical dam safety programs and activities are also supported with these funds.

Rec: \$135,000 – Funding provides for routine operation and maintenance of day-use recreation areas, facilities and features. These funds support management of the recreation program and public visitation by providing safe recreation facilities, healthy recreation experiences, and visitor assistance and protection, as well as for real estate functions to support recreation management by other lessees, agencies and partners.

Hydro: \$0 - N/A

ES: \$55,000 – Funding provides for performance of environmental stewardship activities which protects the health, sustainability and integrity of the public lands associated with this project. Activities include natural resource management practices, environmental evaluations and reviews, shoreline protection, cultural resource investigations, water quality control, boundary line inspection, and encroachment resolution.

WS: \$6,000 – Funding provides for performance of annual activities required to support the negotiation, revision and/or coordination of water supply contracts, and addresses local and congressional interests and concerns for water needs affecting public health and welfare.

OTHER INFORMATION: FY2009 flood damages prevented were \$4.46M, FY2009 recreation visits were 1.17M, and FY2009 visitor expenditures were \$34.97M.

Division: Great Lakes and Ohio River

District: Louisville

William H Harsha Lake, OH

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Wolf Creek Dam, Lake Cumberland, KY

AUTHORIZATION: River and Harbor Act 1946

LOCATION AND DESCRIPTION: Wolf Creek Dam is located on the Cumberland River at mile 460 in Russell County, KY. The project consists of an earth & concrete gravity dam, hydropower plant & a flood storage reservoir with recreation & stewardship areas.

RECOVERY ACT ALLOCATIONS AS OF 31 DECEMBER 2010: T: \$4,988,002

ALLOCATION FOR FY 2011: \$8,089,000

BUDGET FOR FY 2012: M: \$249,000 O: \$7,310,000 T: \$7,559,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: \$796,000 - Funding provides for routine operations and maintenance at minimum levels. Joint operations are necessary to maintain flood control operation of the Cumberland River.

Rec: \$1,562,000 - Funding provides for critical health & safety maintenance & services at minimally acceptable levels for designated recreation areas, including access points, overlooks, day use areas & campgrounds

Hydro: \$4,774,000 - Funding provides for routine operations & maintenance for hydroelectric power plant & hydropower joint costs for operation & maintenance of dam. Funds would allow power plant & dam to accomplish missions of providing low cost reliable electric power by maintaining high availability & peak availability and to maintain control of the river.

ES: \$387,000 - Funding provides for the management of natural resources including operation, safety, environmental compliance, maintenance of the project boundary line, shoreline management, & cultural resources. Funds will assure sustainability of natural resources in accordance with the Corps Environmental Operating Principles & stewardship policies & prevent loss & degradation of more than 98,000 acres to project lands & water. Failure to fund will result in immediate degradation & loss of natural resources, including forests, water quality, shoreline habitat, & aesthetic value.

WS: \$40,000 - Funding provides for vital coordination with all water supply users for continuing major rehabilitation work & critical coordination with users in regard to keeping intakes under water & other relevant issues.

OTHER INFORMATION: Dam Safety Assurance Classification I 55-year old dam with HQ mandated lowered pool. Worsening, chronic seepage problems originating from 1940's foundation construction methods currently threaten the stability of Wolf Creek Dam. Dam failure would result in loss of life in excess of one-hundred lives. Inundation damages in the Nashville area alone are expected to exceed two billion dollars. Hydropower plant generates 965,000 MWH of energy annually, enough supply for 80,000 homes. Lake Cumberland ranks #16 in USACE for recreation with 3,800,000 project visits in FY09 with associated \$100,800,000 in trip spending.

Division: Great Lakes and Ohio River

District: Nashville

Wolf Creek Dam, Lake Cumberland, KY

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Woodcock Creek Lake, PA

AUTHORIZATION: Flood Control Act of 23 October 1962 (P.L. 87-4)

LOCATION AND DESCRIPTION: Woodcock Dam is located on Woodcock Creek, 3.6 miles upstream from its confluence with French Creek at a point 37.1 miles up French Creek from its junction with the Allegheny River at Franklin, PA. The reservoir is located entirely within Crawford County, PA. Woodcock Creek Lake is a multi-purpose reservoir.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$46,765

ALLOCATION FOR FY2011: \$1,078,000

BUDGET FOR FY2012: M: \$292,000 O: \$1,139,000 T: \$1,431,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: \$1,253,000 – Accomplish flood reduction mission by operation of the dam, water control management, dam safety inspections, required safety related analysis and studies, and real estate outgrant management. Reseal dam conduit joints to restore integrity to the dam. Repair bulkhead to meet Corps of Engineers hydraulic steel structure standards.

Rec: \$168,000 – Operate and maintain recreation facilities, including a designated national recreational trail, boating, swimming, camping, fishing, hunting, and picnicking. Also fulfills Corps requirements for visitor health and safety.

Hydro: N/A

ES: \$10,000 – Accomplish shoreline management, threatened/endangered species surveillance, cultural resource protection/preservation, invasive species eradication, and protection of natural resources. These funds will assure sustainability of natural resources in accordance with the Corps Environmental Operating Principles and stewardship policies and prevent loss and degradation to project lands and water.

WS: N/A

OTHER INFORMATION: This project supports approximately 85 jobs and has prevented more than \$33,035,000 in damages since its completion in 1974. Average recreational visitors from 2005 through 2010 were 287,915 annually.

Division: Great Lakes and Ohio River District: Pittsburgh Woodcock Creek Lake, PA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Yatesville Lake, KY

AUTHORIZATION: Section 204 of Flood Control Act of 1965 (P.L. 89-298)

LOCATION AND DESCRIPTION: Yatesville Lake is located in Lawrence County, KY, on Blaine Creek, about 18 miles above the mouth. It is about 4 miles south of Yatesville and 5 miles west of Louisa. The dam is rockfill with a central impervious core, founded on in situ overburden. The maximum height is 105 feet above the streambed with a crest length of 760 feet. The uncontrolled broad crested spillway is located approximately one-half mile southeast of the dam. The dam was completed in 1991.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$615,000

ALLOCATION FOR FY 2011: \$1,154,000

BUDGET FOR FY 2012: M: \$30,000 O: \$1,105,000 T: \$1,135,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: \$886,000 – Funding provides for routine operations and maintenance for flood and coastal storm damage reduction, including required inspections to enhance the quality of American life by reducing flood risk to both life and property, providing benefits to individuals, communities, and the national economy.

Rec: \$206,000 – Funding provides for routine operations and maintenance to provide recreational opportunities to the public to enhance the quality of American life by providing benefits to individuals, communities, the national economy, and the environment.

Hydro: N/A

ES: \$43,000 – Funding provides for routine operations and maintenance for environmental stewardship to provide management of natural and cultural resources to achieve healthy, sustainable conditions, and foster healthy lands and waters by balancing public uses and needs.

WS: N/A

OTHER INFORMATION: Yatesville Lake has prevented over \$23,000,000 in damages over the course of its operation. Project visitation for FY 2010 totaled 243,564.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Youghiogheny River Lake, PA and MD

AUTHORIZATION: Flood Control Act of 28 June 1938 (P.L 75-761)

LOCATION AND DESCRIPTION: The dam is located on the Youghiogheny River about 74.2 miles above its junction with the Monongahela River at McKeesport, PA, and 1.2 miles above Confluence, PA. The reservoir is located in Fayette and Somerset Counties, PA, and Garrett County, MD. Youghiogheny River Lake is a multi-purpose reservoir.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2010: \$199,797

ALLOCATION FOR FY2011: \$2,358,000

BUDGET FOR FY2012: M: \$20,000 O: \$2,190,000 T: \$2,210,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: \$1,567,000 – Accomplish flood reduction mission by operation of the dam, water control management, dam safety inspections, required safety related analysis and studies, and real estate outgrant management.

Rec: \$528,000 – Operate and maintain recreation facilities including boating, water skiing, swimming, camping, fishing, hunting, and picnicking. Also fulfills Corps requirements for visitor health and safety.

Hydro: N/A

ES: \$90,000 - Accomplish shoreline management, threatened/endangered species surveillance, cultural resource protection/preservation, invasive species eradication, and protection of natural resources. These funds will assure sustainability of natural resources in accordance with the Corps Environmental Operating Principles and stewardship policies and prevent loss and degradation to project lands and water.

WS: \$25,000 – Manage water storage agreement and coordination with The Municipal Authority of Westmoreland County, PA.

OTHER INFORMATION: This project supports approximately 160 jobs, and has prevented more than \$538,948,000 in damage since its completion in 1943. In addition to flood control, the dam helps to alleviate pollution problems by releasing additional water downstream during low water periods. Increased stream flow improves water quality by diluting polluted waters entering the rivers from towns, industries and coal mine drainage. The increased stream flow also improves the navigability of the Monongahela and upper Ohio Rivers for commercial navigation, and enables state permitted water withdrawals from the Youghiogheny River downstream of the reservoir. Average recreational visitors from 2005 through 2010 were 524,342 annually.

Division: Great Lakes and Ohio River

District: Pittsburgh

Youghiogheny River Lake, PA & MD

MISSISSIPPI VALLEY DIVISION

MISSISSIPPI VALLEY DIVISION
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Justification of Estimates for Civil Works Activities
 Department of the Army, Corps of Engineers
 Fiscal Year 2012

SUMMARY MISSISSIPPI VALLEY DIVISION

	<u>FY 2011 President's Budget</u>	<u>FY 2012 President's Budget</u>	<u>Increase or Decrease</u>
Investigations	\$35,928,000	\$32,528,000	- 3,400,000
Survey	18,928,000	13,128,000	- 5,800,000
Preconstruction Engineering and Design	17,000,000	19,400,000	+ 2,400,000
Construction	\$68,017,000 <u>1/</u>	\$49,321,000 <u>1/</u>	- 18,696,000
Operation and Maintenance	\$399,076,000	\$394,110,000	-4,966,000
GRAND TOTAL, MISSISSIPPI VALLEY DIVISION	\$503,021,000	\$475,959,000	- 27,062,000

1/ Includes \$350,000 for FY 2011 and \$100,000 for FY 2012 from the Inland Waterways Trust Fund.

FLOOD AND COASTAL STORM DAMAGE REDUCTION

INVESTIGATIONS

APPROPRIATION TITLE: Investigations, Fiscal Year 2012

Mississippi Valley Division

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2009 \$	Allocation FY 2009 \$	Allocation FY 2010 \$	Allocation FY 2011 \$	Tentative Allocation FY 2012 \$	Additional to Complete After FY 2012 \$
Fargo, ND-Moorhead, MN Metro (Red River of the North Basin, MN, ND, SD and Manitoba, Canada) St Paul District (Preconstruction Engineering and Design)	27,225,000	0	0	0	15,000,000	12,000,000	225,000

The cities of Fargo, North Dakota, and Moorhead, Minnesota, are located on the Red River of the North in eastern North Dakota and western Minnesota. Average annual flood damages in the Fargo-Moorhead metropolitan area are estimated at more than \$195 million. The Fargo-Moorhead metropolitan area has a relatively high risk of flooding; the metropolitan area's population is projected to increase from 174,000 people in 2000 to more than 218,000 in 2015, and much of that development is expected in areas between the 100-year and 500-year flood elevations. The highest river stages usually occur as a result of spring snowmelt, but summer rainfall events have also caused significant flood damages. The Red River of the North has exceeded the National Weather Service flood stage of 18 feet in 47 of the past 108 years, and every year from 1993 through 2010, with the flood of record occurring in 2009. The average net benefits of the project are expected to exceed \$95 million annually, all for flood damage reduction. The tentatively recommended plan will be a diversion channel around the Fargo-Moorhead community at a cost of \$1.4 billion and a Federal cost of nearly \$796 million. Based on the latest economic analysis completed in June 2010 the tentatively recommended diversion plan benefit-cost ratio is 2.26 to 1.0. The cities of Fargo, North Dakota, and Moorhead, Minnesota are the local sponsors for preconstruction engineering and design (PED) and construction. There is significant local interest in this project and the local entities understand the requirements of both PED and construction and have funds available to finance the PED. PED will ultimately be cost shared at the rate for the project to be constructed but will be financed through the PED period at 25 percent non-Federal. Any adjustments that may be necessary to bring the non-Federal contribution in line with the project cost sharing will be accomplished in the first year of construction.

Total Estimated Preconstruction Engineering and Design Costs	\$36,300,000	Total Estimated Preconstruction Engineering and Design Costs	\$36,300,000
Initial Federal Share	27,225,000	Ultimate Federal Share	23,600,000
Initial Non-Federal Share	9,075,000	Ultimate Non-Federal Share	12,700,000

The project is not authorized for construction. The Chief's Report is scheduled for completion in December 2011. Flood damage reduction cost sharing will be 65 percent Federal and 35 percent non-Federal and recreation cost sharing will be 50 percent Federal and 50 percent non-Federal in accordance with the Water Resources Development Act of 1986, as amended by the Water Resources Development Act of 1996. The incremental cost difference between the Federally Comparable Plan and the Locally Preferred Plan will be 100 percent non-Federal. Fiscal Year 2011 funds are being utilized to complete the feasibility phase, scheduled for completion in November 11 and initiate PED including Hydraulics & Hydrology modeling, physical modeling of structures, topographic, geotechnical, cultural and cultural mitigation surveys along part of the diversion alignment, preliminary design of the Red River Control Structure and fish passage facilities, project management and planning, environmental coordination, plans and specifications for the diversion outlet, and an initial railroad agreement for design of three railroad crossings. The local sponsor will use their required portion of the funds to design the northern-most of the 20 bridges required for the project. Funds requested for Fiscal Year 2012 will be used to continue PED.

CONSTRUCTION

APPROPRIATION TITLE: Construction – Local Protection (Flood Control)

PROJECT: Alton to Gale Organized Levee Districts, Illinois and Missouri (Deficiency Correction) (Continuing).

LOCATION: The levee system is located adjacent to the Mississippi River between Alton, Illinois, and Gale, Illinois, (Mississippi River miles 46-202).

DESCRIPTION: The project involves repairing levee slides and the stabilization of levee slopes to prevent failure during high water events. . Unprogrammed portion reflects an estimate to repair the identified design deficiencies.

AUTHORIZATION: Flood Control Acts of 1936, 1938, 1946; Water Resources Development Act of 1986.

REMAINING BENEFIT-REMAINING COST RATIO: To be determined. The letter report is currently being revised to propose a long term solution to the design deficiency issues that exist within eleven of the levee districts located in the Alton to Gale levee system.

TOTAL BENEFIT-COST RATIO: 6.8 to 1 at 7 percent.

INITIAL BENEFIT-COST RATIO: 13.9 to 1 at 2.5 percent (FY 1968).

BASIS OF BENEFIT-COST RATIO: Benefits are based on the Deficiency Corrections draft Letter Report dated April 2003 at October 2002 price level.

SUMMARIZED FINANCIAL DATA:

Original Project	
Actual Federal Cost (COE)	\$ 87,516,000
Actual Federal Cost (Jobs Bill)	1,954,000 ¹
Actual non-Federal Cost Cash Contributions Other Costs	(Not available)
Total Original Project Cost	\$ 89,470,000

¹ Funds provided by the Productive Employment Appropriation Act of 1983 (PL 98-8) enacted 24 March 1983 (Jobs Bill).

SUMMARIZED FINANCIAL DATA (CONTINUED)			ACCUM PCT OF EST FED COST	STATUS (1 Jan 2011)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Remedial Work						
Estimated Federal Cost		\$ 19,548,000		Programmed Work	65	TBD
Programmed Construction	12,008,000			Entire Project		Indefinite
Unprogrammed Construction	7,540,000					
PHYSICAL DATA						
Estimated Non-Federal Cost		4,374,000		Levees		183.3 miles
Programmed Construction	456,000					
Cash Contributions	456,000					
Other Costs	0					
Estimated Non-Federal Cost		3,918,000				
Unprogrammed Construction	3,918,000					
Cash Contributions	3,918,000					
Other Costs	0					
Total Estimated Programmed Construction Cost		\$101,934,000				
Total Estimated Unprogrammed Construction Cost		11,458,000				
Total Estimated Project Cost		113,392,000				
Allocations to 30 September 2008		101,471,000	²			
Allocations for FY 2009		287,000				
Allocations for FY 2010		233,000				
Recovery Act Allocations to Date		0				
President's Budget for FY 2011		150,000				
Allocation for FY 2011		150,000				
Allocations through FY 2011		102,141,000		94		
Budget for FY 2012		500,000		94		
Programmed Balance to Complete After FY 2012		TBD	³			
Unprogrammed Balance to Complete After FY 2012		TBD				

^{2/} Includes \$1,954,000 provided by PL 98-8 enacted 24 March 1983 (Jobs Bill).

³ Cost estimate will be updated upon finalization of the Deficiency Correction Letter Report.

Mississippi Valley Division

St. Louis District

Alton to Gale Organized Levee Districts,
Illinois and Missouri

JUSTIFICATION: Construction of the levees was completed in 1977. For many years some reaches of this levee system have been experiencing a significant number of slides, reducing the ability of the levee system to provide the authorized level of protection. It has been determined that the slides are due to a design deficiency. This project, in addition to preventing damages to property, is effective in reducing a high risk to life for the populations in the project area. That risk must be considered in evaluating the project justification in addition to economic analyses. Risk is created by both hydrologic factors (flood depth, velocity, and short warning time) and cultural factors (size of population and available routes of egress from the flood plain).

FISCAL YEAR 2011: Funds will be used as follows:

Planning, Engineering, and Design	\$150,000
Total	\$150,000

FISCAL YEAR 2012: The requested amount will be applied as follows:

Planning, Engineering, and Design	\$ 500,000
Total	\$500,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Pay 25 percent of the costs allocated to flood control remedial work and bear all costs of operation, maintenance, repair, rehabilitation, and replacement of flood control facilities.	\$ 4,374,000	\$0
Total Non-Federal Costs	\$ 4,374,000	\$0

The local sponsors of cost-shared remedial work will be required to make all payments concurrent with project construction.

STATUS OF LOCAL COOPERATION: Formal assurances were received prior to construction of the original project. Supplemental assurances have been executed for the remedial work that is 100 percent Federally funded for repair of 12.4 miles of levee located in Prairie du Rocher, Degognia-Fountain Bluff, Grand Tower, and Metro East Drainage and Levee Districts. Supplemental assurances for the remedial work that is to be cost shared in accordance with the provisions

Mississippi Valley Division

St. Louis District

Alton to Gale Organized Levee Districts,
Illinois and Missouri

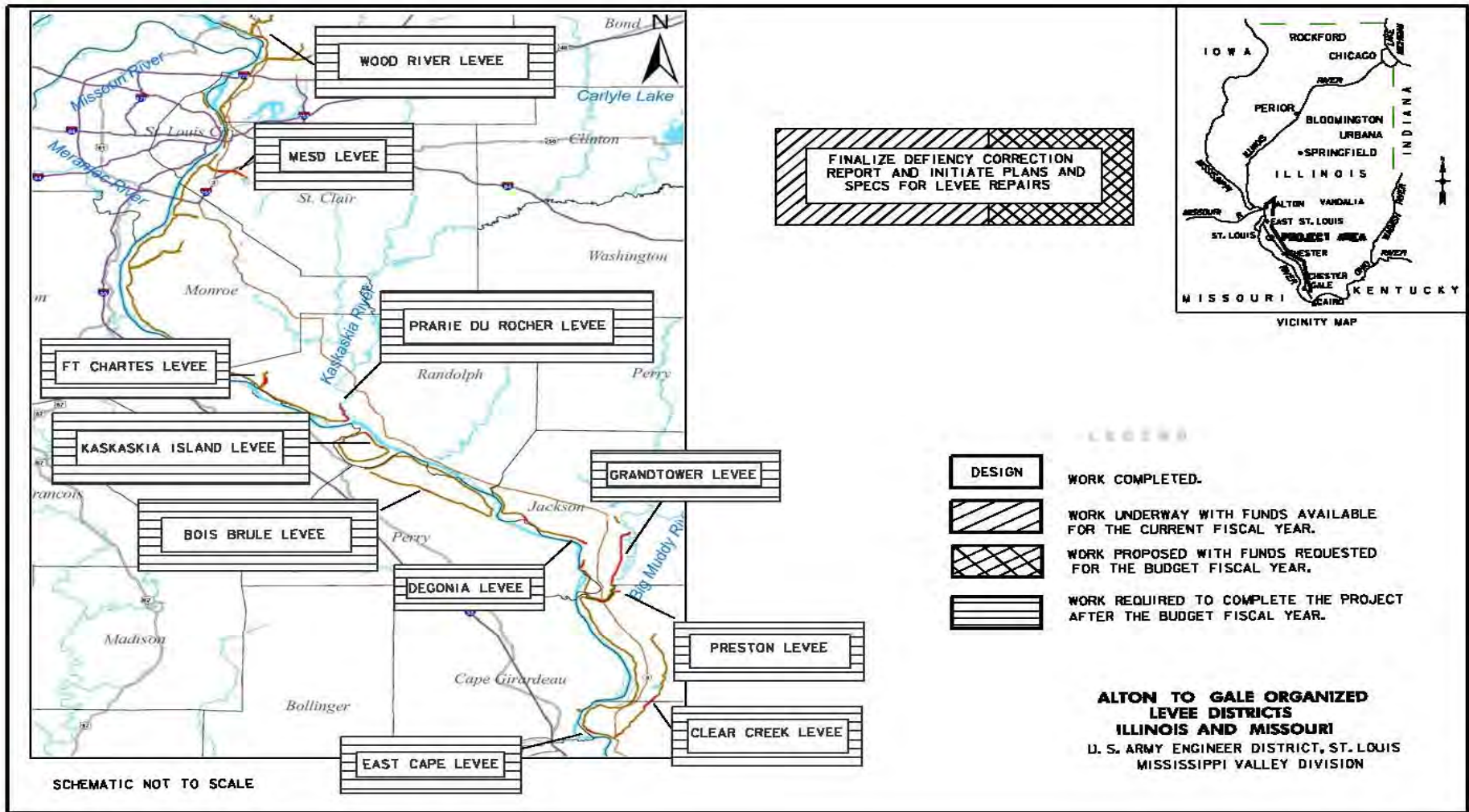
of the Water Resources Development Act of 1986 (Public Law 99-662) will be scheduled upon completion and approval of the deficiency report. This report will provide an update to the 1986 letter report and address a long-term solution to the problem for the entire levee system.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$109,018,000 is the same as the latest estimate presented to Congress (FY 2011).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: A Finding of No Significant Impact (FONSI) was signed on 7 September 1989 and was distributed to public agencies and officials. An Environmental Assessment (EA) is being prepared as part of the letter report and will be distributed to public agencies and officials for review.

OTHER INFORMATION: Funds to initiate construction of the remedial work were appropriated in Fiscal Year 1989. Previous funding included actual cost of \$87,516,000 for the construction of the original project, completed in 1977, and \$1,954,000 provided by the Productive Employment Appropriation Act of 1983 (Public Law 98-8). The scheduled completion date is being determined. The design deficiency results from levee slides that have occurred because highly plastic clay material was used in the original construction. The Assistant Secretary of the Army (Civil Works) has agreed to 100 percent Federal cost for repair of 12.4 miles of levee located in Prairie du Rocher, Degognia-Fountain Bluff, Grand Tower, and Metro East Drainage and Levee Districts. In November 2000, the St. Louis District Corps of Engineers received permission to pursue the repair of the slides at full Federal expense. A contract was awarded in August 2001 to repair 44 existing slides at 100 percent Federal cost, and completed September 2002. The ASA (CW) also requested an update to the 1986 letter report to address a long-term solution to the problem for the entire levee system. The deficiency correction report, when completed, will address a long-term solution for levee slides over the entire levee system. The number of slides continues to increase and flooding in the spring and summer of 2008 has severely worsened the slides. Repairs to many of the levees were completed under PL 84-99. However, the PL84-99 repairs are only a temporary solution and do not fully address the deficiency. The current cost estimate reflects October 1997 price levels and will be updated after the deficiency correction letter report is finalized.

Corps' policy requires cost sharing for the remaining areas, which include Grand Tower, Degognia-Fountain Bluff, Prairie du Rocher, Metro East, Clear Creek, Kaskaskia Island, East Cape, Bois Brule, Fort Chartres, Preston, and Wood River Drainage and Levee Districts.



APPROPRIATION TITLE: Construction – Channels and Harbors (Flood Control)

PROJECT: Chain of Rocks Canal, Mississippi River, Illinois, (Deficiency Correction) (Continuing)

LOCATION: The Chain of Rocks Canal is located on the Mississippi River adjacent to river miles 184 to 194.4 in Madison County, Illinois.

DESCRIPTION: The recommended plan for deficiency correction involves the installation of relief wells and construction of berms and a pump station. All work is programmed.

AUTHORIZATION: The original project was authorized by the River and Harbor Act of 2 March 1945.

REMAINING BENEFIT-REMAINING COST RATIO: 5.5 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 1.5 to 1 at 7 percent.

INITIAL BENEFIT-COST RATIO: 1.5 to 1 at 7 3/8 percent (FY 1999).

BASIS OF BENEFIT-COST RATIO: Based on the Chain of Rocks Design Deficiency Report dated July 1997 at October 1996 price levels.

SUMMARIZED FINANCIAL DATA 1/			STATUS (1 Jan 2011)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
			Entire Project	68	TBD
Actual Federal Cost	Original Project	\$59,260,000	PHYSICAL DATA		
Actual Non-Federal Cost		0	The proposed plan provides for correcting underseepage deficiencies on the nine-mile long levee, installing new relief wells, replacing nonfunctional relief wells, utility relocations landside of the levee, adding fill to berms and filling in low areas, constructing a 155 cfs pump station, and constructing wetland mitigation features.		
Cash Contributions	\$ 0				
Other Costs	0				
Total Original Project Cost		\$59,260,000			

Mississippi Valley Division

St. Louis District

Chain of Rocks Canal, Mississippi River, Illinois

SUMMARIZED FINANCIAL DATA (CONTINUED)

Remedial Work		ACCUM PCT OF EST FED COST (Remedial Work Only)
Estimated Federal Cost	\$56,300,000	
Estimated Non-Federal Cost	\$0	
Cash Contributions	0	
Other Costs	0	
Total Estimated Remedial Cost	\$56,300,000	
Total Estimated Project Cost	\$115,560,000	
Allocations to 30 September 2008	\$ 28,073,000	
Allocation for FY 2009	2,392,000	
Allocation for FY 2010	4,941,000	
Recovery Act Allocations to Date	10,536,000	
President's Budget for FY 2011	5,385,000	
Allocation for FY 2011	5,385,000	
Allocations through FY 2011	51,327,000	91
Budget for FY 2012	2,250,000	95
Programmed Balance to Complete after FY 2012	2,723,000	
Unprogrammed Balance to Complete after FY 2012	0	

1/ Allocations included for Remedial work only.

Mississippi Valley Division

St. Louis District

Chain of Rocks Canal, Mississippi River, Illinois

14 February 2011

MVD-17

JUSTIFICATION: This project is receiving a higher funding priority in the budget than its remaining benefit-remaining cost ratio would normally allow because it addresses significant risk to human safety in accordance with the Army Corps of Engineers performance-based guidelines for the construction account. The Chain of Rocks Canal Levee System consists of a dual line of levees running parallel to the canal constructed as part of the Chain of Rocks Canal, Illinois, navigation project. The operation and maintenance of these levees is a 100 percent Federal responsibility. The eastern line of this levee system serves as an integral part of the main line levee protection to the East St. Louis and vicinity area. The east levee has demonstrated inadequate underseepage performance during past floods. Quick conditions and sand boils developed on the landside of the levee during high river stages. The original design assumptions related to the coefficients of permeability for the aquifer and top stratum materials were incorrect. The relief well system was found to be deficient. The levee, as originally designed, relies on the impoundment of water against the landside toe of the levee in order to maintain levee stability; however, development over the last 40 years has prevented effective use of this method. Correction of the deficiencies will assure the integrity of the levee system and help to provide urban level protection for the East St. Louis metropolitan area. Failure of the levee would affect a population of 200,000 mainly low income residential neighborhoods and a heavily industrialized area with total property values of approximately \$1.4 billion.

The Budget includes funding primarily to address a significant risk to human safety. The Corps made this determination based on many factors such as the likelihood and magnitude of the potential flooding, the number of people living in the flood plain, the likely warning time, the availability of evacuation routes, and site-specific engineering factors. This project, in addition to preventing damages to property, is effective in reducing a high risk to life for the populations in the project area. That risk must be considered in evaluating the project justification in addition to economic analyses. Risk is created by both hydrologic factors (flood depth, velocity, and short warning time) and cultural factors (size of population and available routes of egress from the flood plain).

Average annual benefits for the deficiency correction are as follows:

Annual Benefits	Amount
Flood Damage Reduction	\$2,618,000
Navigation	29,000
Total	\$2,547,000

FISCAL YEAR 2011: Funds will be used as follows:

Pump Station	\$4,680,000
Maintenance During Construction	15,000
Mitigation	15,000
Planning, Engineering and Design	475,000
Construction Management	2,385,000
Total	5,385,000

Mississippi Valley Division

St. Louis District

Chain of Rocks Canal, Mississippi River, Illinois

FISCAL YEAR 2012: The requested amount will be applied as follows:

Relief Wells	\$1,135,000
Maintenance During Construction	15,000
Mitigation	750,000
Planning, Engineering and Design	200,000
Construction Management	150,000
Total	\$2,250,000

NON-FEDERAL COST: The project is 100 percent Federal.

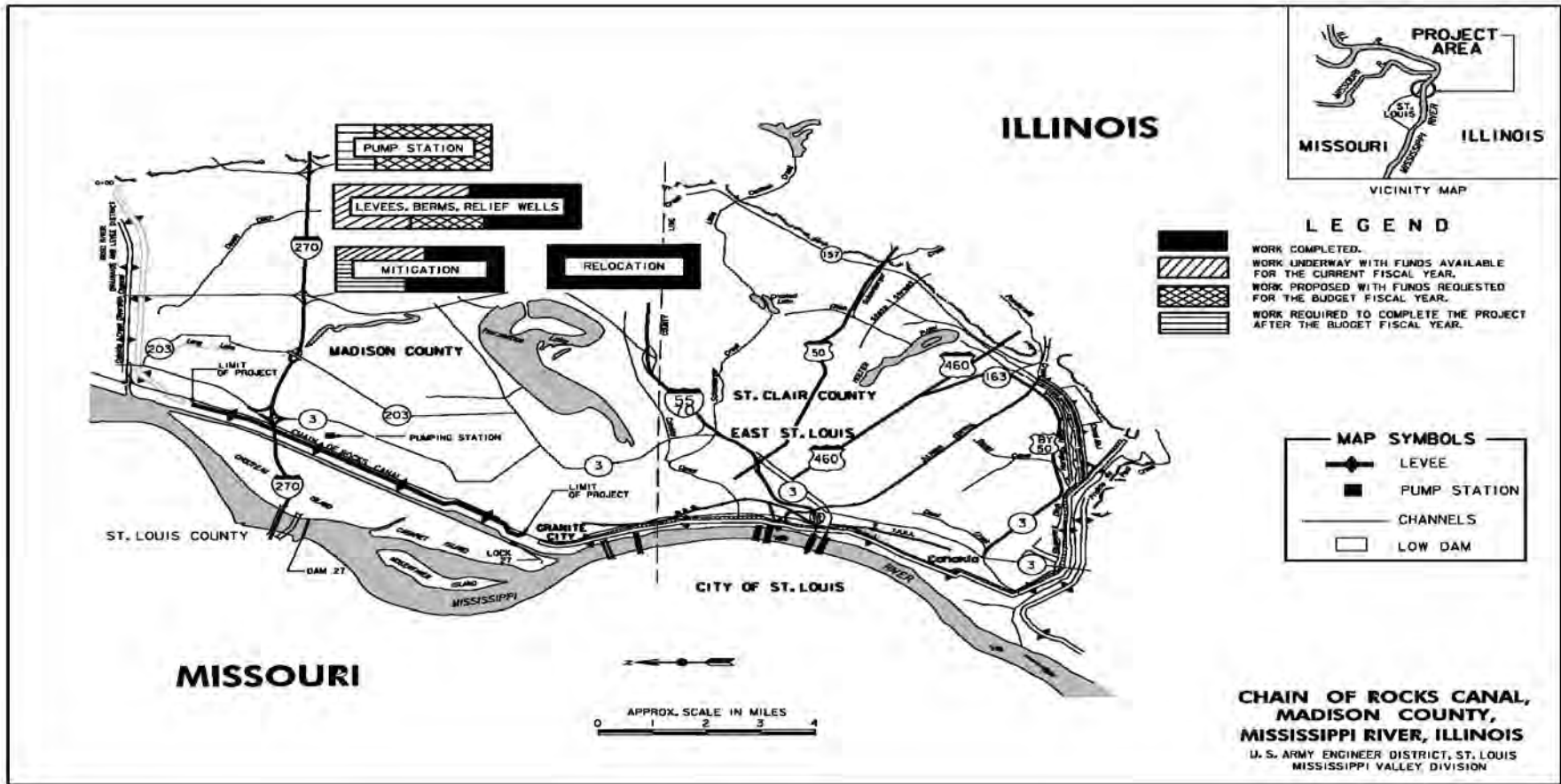
STATUS OF LOCAL COOPERATION: Not applicable.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$56,300,000 is an increase of \$1,500,000 from the latest estimate (\$54,800,000) presented to Congress (FY 2011). This change includes the following items:

Item	Amount
Price Escalation on Construction Features	\$ -150,000
Post Contract Award and Other Estimating (including Contingency Adjustments)	1,650,000
Total	\$1,500,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Environmental Assessment resulted in a Finding of No Significant Impact (FONSI), which was signed 21 May 1996. A second FONSI for revised plans was signed 14 August 2002.

OTHER INFORMATION: Previous funding included the actual cost of \$59,260,000 for the construction of the original project, which was completed in Fiscal Year 1953. Funds to initiate construction for the remedial work were appropriated in Fiscal Year 1999. The deficiency report documented a need for a pumping station to handle 155 cubic feet per second in interior flows. Without this pump station, there is no means of handling the additional flows from newly installed relief wells. Fish and Wildlife costs are \$2,052,000.



Mississippi Valley Division

St. Louis District

Chain of Rocks Canal, Mississippi River, Illinois

14 February 2011

MVD-20

APPROPRIATION TITLE: Construction - Local Protection (Flood Control)

PROJECT: Crookston, Minnesota (Continuing)

LOCATION: The City of Crookston is located on the Red Lake River in Polk County in northwestern Minnesota, about 25 miles east of the Minnesota - North Dakota border and about 85 miles south of the Canadian border.

DESCRIPTION: The project consists of two downstream high-flow channels, levees providing protection from the 100-year flood events for the neighborhoods of Woods Addition, Thorndale and Riverside/Downtown, and flood plain management techniques for areas not protected by permanent levees. All work is programmed.

AUTHORIZATION: Water Resources Development Act of 1999, Sec 101(a) (23) (Public Law 106-53).

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable because project is substantially complete.

TOTAL BENEFIT-COST RATIO: Not applicable because project is substantially complete.

INITIAL BENEFIT-COST RATIO: 1.6 to 1 at 6 7/8 percent (FY 2001).

BASIS OF BENEFIT-COST RATIO: Benefits are from the Feasibility Report and Environmental Assessment for Local Flood Control, Crookston, Minnesota dated June 1997 at October 1996 price levels.

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST	STATUS (1 Jan 2011)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	\$ 8,575,000		Entire Project	98	Sep 2012
Estimated Non-Federal Cost	4,600,000				
Cash Contributions	\$2,115,000				
Other Cost	2,485,000				
Total Estimated Project Cost	\$ 13,175,000				
			PHYSICAL DATA		
Allocations to 30 September 2008	\$7,038,000		Permanent Levees	1.5 miles	
Allocation for FY 2009	287,000		Channel Cutoffs	2	
Allocation for FY 2010	0		Road Raise	1	
President's Budget for FY 2011	0				
Allocation for FY 2011	0				
Allocations through FY 2011	7,325,000	85			
Budget for FY 2012	1,250,000	100			
Programmed Balance to Complete After FY 2012	0				
Unprogrammed Balance to Completed After FY 2012	0				

JUSTIFICATION: About 800 Crookston residences are located in flood prone areas of the city. The 1950 flood inundated most of the flood prone properties. However, for subsequent floods in 1965, 1969, and 1979, the City of Crookston had erected levees that together with emergency flood fights prevented major damages to the flood prone residential areas. The local levees at Crookston were not constructed to permanent levee standards, and considerable deterioration has occurred since construction. There are six separable flood prone reaches in Crookston, and each reach is protected by a local levee, now in unreliable condition. The risk of failure of these levees during a large flood could cause catastrophic damages. The flood of April 1997 was the maximum flood of record, requiring a massive emergency flood fight to limit flood damages and prevent loss of life. It is expected that a 100-year flood event would result in damage in Crookston that would exceed \$15 million. The average annual benefits, all for flood control, are \$1,118,000.

FISCAL YEAR 2011: N/A

FISCAL YEAR 2012: The requested amount of \$1,250,000 will be applied as follows:

Complete project by repairing/replacing damaged rock berms	\$ 1,250,000
Total	\$ 1,250,000

Mississippi Valley Division

St. Paul District

Crookston, Minnesota

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsors must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, and rights-of-way, and borrow and excavated or dredged material disposal areas.	\$ 2,152,000	\$ 0
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	333,000	
Pay 16.1 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 35 percent as determined under Section 103(m) of the Water Resources Development Act of 1986, as amended to reflect the non-Federal sponsor's ability to pay, but no less than 5 percent of the costs allocated to flood control, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	2,115,000	28,700
Total Non-Federal Costs	\$ 4,600,000	\$ 28,700

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: The City of Crookston is the local sponsor for this project. A Project Cooperation Agreement (PCA) for construction was coordinated with the city and they are in agreement with its terms and conditions. The PCA was executed in March 2001. The city instituted a special services district property tax to pay for this flood control project. In addition, the city has assembled a package of financial support from several state and local agencies.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$8,575,000 is an increase of \$1,745,000 over the latest estimate (\$6,830,000) presented to Congress (FY 2004). This change includes the following items:

Item	Amount
Post Contract Award and Other Estimating adjustments	\$ 1,745,000
Total	\$ 1,745,000

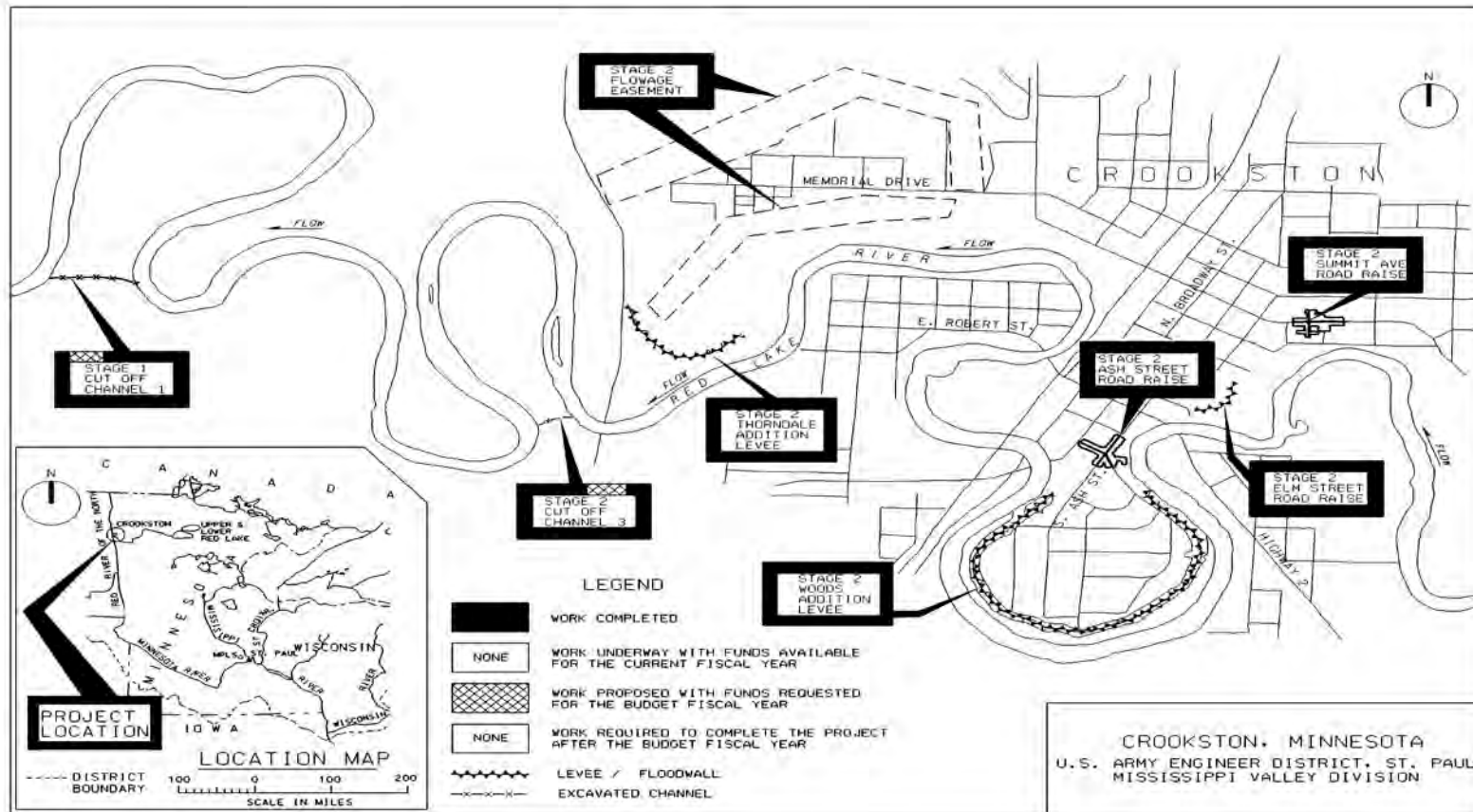
Mississippi Valley Division

St. Paul District

Crookston, Minnesota

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An Environmental Assessment was prepared in conjunction with the Feasibility Report. The environmental review process indicates that the proposed action does not constitute a major Federal action significantly affecting the environment. A Finding of No Significant Impact (FONSI) was signed 18 June 1997.

OTHER INFORMATION: Work was substantially completed in November 2004. In the spring of 2005, high flows and large ice severely damaged two rock berms at the upstream end of cutoff channels 1 and 3 before the project was turned over to the local sponsor. The sponsor will not accept the project in its current damaged condition. Funds were included in the FY 2009 President's Budget to complete the berm repairs; however, based on a recent design recommendation to include sheet pile in lieu of just riprap berm, the estimated cost of the repairs has increased. Requested funds are needed to complete the project by repairing and/or replacing the two rock berms to financially close out the project and turn it over to the local sponsor.



APPROPRIATION TITLE: Construction – Local Protection (Flood Control)

PROJECT: East St. Louis, Illinois (Rehabilitation) and (Deficiency Correction) (Continuing)

LOCATION: The project is located in St. Clair and Madison Counties, Illinois, along the left bank of the Mississippi River between river miles 175 and 195 above the Ohio River.

DESCRIPTION: The project consists of the rehabilitation or closure of 21 small gravity drains, 10 large gravity drains (gatewells), 20 closure structures, and 300 relief wells; minor floodwall and levee repair work; rehabilitation of 12 pumping stations, 3 drainage control structures, and 6 channel segments; and replacement of 3 bridge structures and abandonment and removal of 4 bridge structures. All work, except bridges, is programmed. The bridge work, which is unprogrammed, was performed at 100 percent non-Federal costs. A Limited Reevaluation Report that addresses design deficiencies in underseepage and through seepage controls was approved by MVD August 2010. These deficiencies manifested during the 1993, 1995, and 2008 floods. Deficiency corrections are required for a segment of levee that is adjacent to a proposed EPA Superfund site and other hazardous and toxic waste sites. The deficiency correction project consists of 369 new relief wells, grouting 314 wood stave relief wells, ditching and pipe collector systems, a seepage pump station, a lift station, seepage berms, and cutoff walls

AUTHORIZATION: Energy and Water Development Appropriations Act of 1988 (PL 100-202).

REMAINING BENEFIT-REMAINING COST RATIO: 11.6 to 1 at 7 percent (rehabilitation project).

TOTAL BENEFIT-COST RATIO: 6.9 to 1 at 7 percent (rehabilitation project).

INITIAL BENEFIT-COST RATIO: 5.6 to 1 at 8 7/8 percent (FY 1988) (rehabilitation project).

BASIS OF BENEFIT-COST RATIO: Benefits for the rehabilitation project are from the Supplemental Project Report, completed March 1999.

RISK INDEX: 458

BASIS OF RISK INDEX: The Risk Index is computed during budget development using the following: risk velocity times the risk depth times the population at risk, all divided by the warning time.

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST	STATUS (1 Jan 2011)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		\$ 156,561,000		Entire Project	27	TBD
Programmed Construction	156,561,000					
Unprogrammed Construction	0					
PHYSICAL DATA						
Estimated Non-Federal Cost		100,304,000				
Programmed Construction	75,486,000			Floodwall & Levee Work		
Cash Contributions	66,776,000 ¹			Small Gravity Drains		21
Other Costs	8,710,000			Large Gravity Drains		10
Estimated Non-Federal Cost				Closure Structures		20
Unprogrammed Construction	24,818,000			Relief Wells		669
Other Costs	24,818,000			Pumping Stations		13
Total Estimated Programmed Construction Cost		\$232,047,000		Drainage Control Structures		3
Total Estimated Unprogrammed Construction Cost		24,818,000		Bridge Replacements		3
Total Estimated Project Cost		256,865,000		Bridge Abandonment and Removal		4
				Channels		6 segments
Allocations to 30 September 2008		39,243,000		Seepage Berm		2,410 LIN FT
Allocation for FY 2009		718,000		Cutoff Wall		18,580 LIN FT
Allocation for FY 2010		500,000		Clay Blanket		1,320 LIN FT
Recovery Act Allocation to Date		0				
President's Budget for FY 2011		1,000,000				
Allocation for FY 2011		1,000,000				
Allocations through FY 2011		41,461,000	27			
Budget for FY 2012		1,350,000	27			
Programmed Balance to Complete After FY 2012		113,750,000				
Unprogrammed Balance to Complete After FY 2012		20,800,000				

¹ A cash contribution of \$69,675,000 is partially offset by a credit of \$2,899,000 for work-in-kind on completed work.

Mississippi Valley Division

St. Louis District

East St. Louis, Illinois

14 February 2011

MVD-27

JUSTIFICATION: The original project, authorized by the Flood Control Act of 1936, provides protection for 85,000 acres consisting of business, industrial, residential, and metropolitan areas, including East St. Louis, Granite City, Madison, Venice, Brooklyn, Fairmont City, Sauget, and Cahokia Illinois. The urban design levee was designed to provide flood protection from the Mississippi River to a flood stage of 52 feet on the St. Louis, Market Street gage. The project protects the largest urbanized Mississippi River floodplain north of New Orleans. The rehabilitation project was authorized by the Energy and Water Development Appropriations Act of 1988. As a result of failure of a deteriorated roller gate, localized flooding occurred in 1986 leading to the evacuation of 1,200 residents and causing an estimated \$35,000,000 in property damage. The need for extensive rehabilitation work was confirmed during preparation of a General Design Memorandum for the project during Fiscal Year 1990. A tax referendum, passed in February 1989, provides the Metro East Sanitary District with increased tax revenue necessary to cost share in the rehabilitation project and perform the necessary maintenance of the project after the rehabilitation work is completed. Because the levee system protects heavy industry (including chemical manufacturing facilities and steel mills) as well as hazardous/toxic chemical disposal sites (Sauget Area 1 Superfund Site/Sauget Area 2 Superfund site), failure of the levee could create an environmental disaster as well as adversely impact the economy. This project, in addition to preventing damages to property, is effective in reducing a high risk to life for the populations in the project area. That risk must be considered in evaluating the project justification in addition to economic analyses. Risk is created by both hydrologic factors (flood depth, velocity, and short warning time) and cultural factors (size of population and available routes of egress from the flood plain). The average annual benefits, all flood control, are \$30,159,000.

The LRR documents a study of deficiencies in the unnderseepage and through-seepage designs and recommended a deficiency correction project for implementation. Section 216 of the Flood Control Act of December 31, 1970, PL 91-611 is the authority to implement the design deficiency corrections.

FISCAL YEAR 2011: Current year funds will be used as follows:

Continue North Pump Station Relief Well contract	\$ 200,000
Planning, Engineering, and Design	750,000
Construction Management	50,000
Total	\$1,000,000

FISCAL YEAR 2012: The requested amount will be applied as follows:

Construct Relief Wells	\$ 546,000
Planning, Engineering, and Design	704,000
Construction Management	100,000
Total	\$1,350,000

Mississippi Valley Division

St. Louis District

East St. Louis, Illinois

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, rights-of-way, and dredged material disposal areas.	\$ 5,513,000	
Pay 23.9 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 25 percent, as determined under Section 103(m) of the Water Resources Development Act of 1986 to reflect the non-Federal sponsor's work-in-kind credit based on Section 215 of the Flood Control Act of 1968.	69,675,000	\$ 786,400
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities where necessary for construction of the project.	25,116,000	
Total Non-Federal Costs	\$100,304,000	\$ 786,400

Local interests are also required to operate and maintain all works after completion.

STATUS OF LOCAL COOPERATION: The local sponsor, the Metro East Sanitary District, is strongly supportive of the project. A tax referendum passed in February 1989, provided sufficient funds for local sponsorship of the project. Three Project Cooperation Agreements were executed for this project. The Project Cooperation Agreement for the first construction item was executed in November 1989. The second Project Cooperation Agreement was executed on 11 December 1990. The third Project Cooperation Agreement was executed on 11 March 1992. Amendment No. 1 to the third Project Cooperation Agreement, crediting the local sponsor for costs of work-in-kind (Clearing & Excavation of Drainage Channels), was executed on 9 August 1994. Amendment No. 2, executed on 2 September 1997, allows the Corps to award a contract for the previously identified work-in-kind and adds mitigation as a project cost feature. A Third Party Agreement, executed in August 1999 between Metro East Sanitary District and Canteen Creek Drainage District, eliminated the requirement for a fourth Project Cooperation Agreement for this project. The current non-Federal cost estimate of \$17,804,000, which includes a cash contribution of \$12,875,000, is an increase of \$10,200,000 from the non-Federal cost estimate of \$7,604,000 noted in the Project Cooperation Agreement, which included a cash contribution of \$7,062,000. In a financial document dated 19 May 1999, the non-Federal sponsor indicated they are financially capable and willing to contribute the increased non-Federal share. Our analysis of the non-Federal sponsor's financial capability to participate in the project affirms that the sponsor has a reasonable and implementable plan for meeting its financial commitment. In order to restore the authorized level of protection to the levee, additional work will be needed to address critical underseepage and through-seepage problems that manifested themselves during the floods of 1993, 1995 and 2008. The project sponsor has been notified that these problems are the result of design deficiency issues that have been addressed in the Limited Reevaluation Report (LRR). Deficiency correction project costs resulting from the LRR will be maintained separately from the East St. Louis rehabilitation project costs.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate for the rehabilitation project of \$41,961,000 is an increase of \$1,310,000 from the latest estimate (\$40,651,000) presented to Congress (FY 2011). The change includes the following items:

Item	Amount
Price Escalation on Construction Features	\$ 38,000
Post Contract Award and Other Estimating (including Contingency Adjustments)	1,272,000
Total	\$1,310,000

The current Federal cost estimate for the deficiency correction project is \$114,600,000. This is the first time this estimate is being presented to Congress.

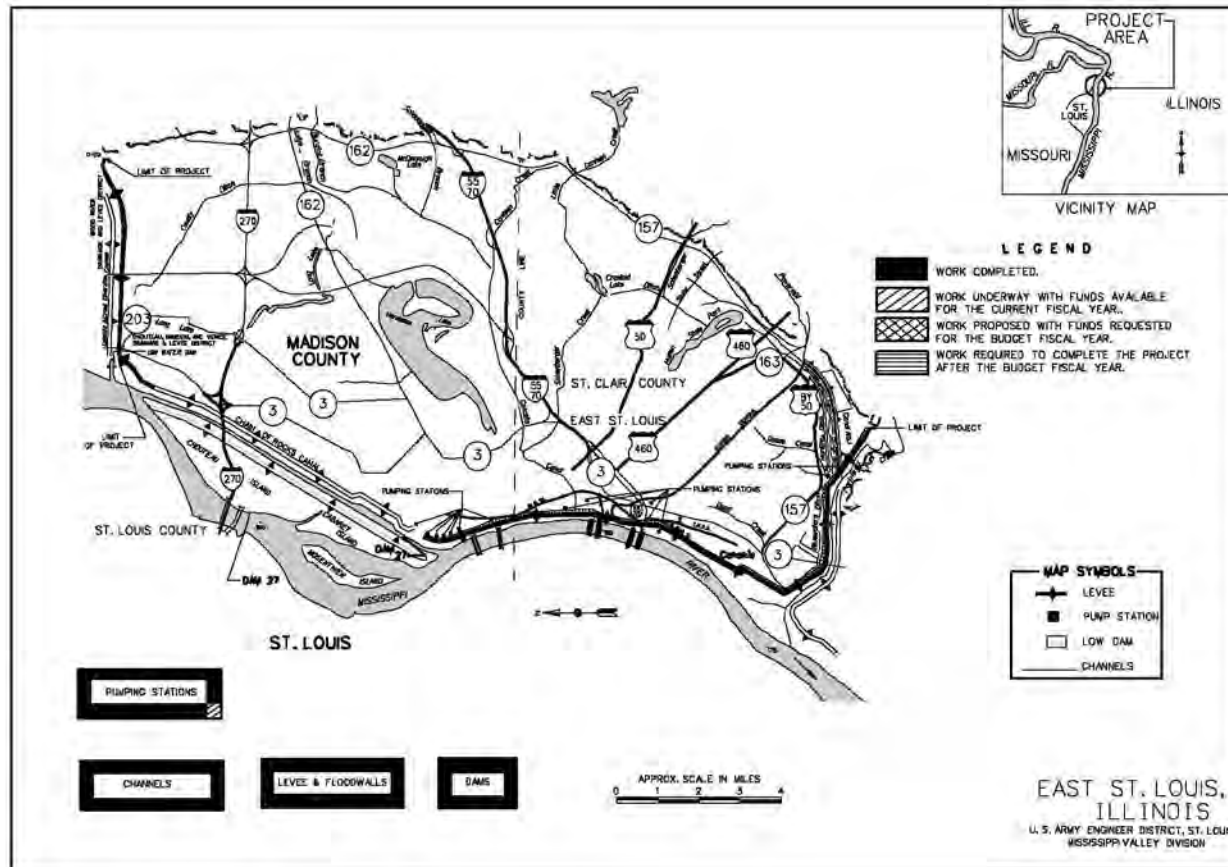
STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The project consists of rehabilitation of existing facilities and, for the major part of the project, will not affect environmental conditions except for short-term localized impacts. An environmental assessment and Finding of No Significant Impact was signed by the District Commander on 1 August 1991.

OTHER INFORMATION: Funds to initiate construction of the rehabilitation project were appropriated in Fiscal Year 1988.

As a result of the drainage ditch clearing and excavation, mitigation was approved as a project cost per amendment Number 2 to the third Project Cooperation Agreement and was accomplished on project lands.

Fish and Wildlife mitigation costs are \$19,000.

Physical completion of the rehabilitation project is largely dependent on the need for low river stages to complete the North Pump Station work.



APPROPRIATION TITLE: Construction - Local Protection (Flood Control)

PROJECT: Larose to Golden Meadow, Louisiana (Hurricane Protection) (Continuing)

LOCATION: The project is located in Lafourche Parish, Louisiana, about 28 miles southwest of New Orleans and about 25 miles inland from the Gulf of Mexico along Bayou Lafourche, south of the Gulf Intracoastal Waterway, extending from Larose to Golden Meadow, a distance of about 16 miles.

DESCRIPTION: The project consists of a ring levee approximately 48 miles in length encircling the areas along Bayou Lafourche from Larose to Golden Meadow and extending approximately 9,800 feet from each side of the bayou. Enlargement of about three miles of the existing levee at Golden Meadow and construction of floodgates on Bayou Lafourche at the upper and lower limits of the protection system will be used for hurricane protection purposes. A Post Authorization Change Report is required because of increased construction costs and post Katrina design and construction criteria changes.

AUTHORIZATION: Flood Control Act of 1965.

REMAINING BENEFIT - REMAINING COST RATIO: 1.02 to 1.0 at 7 percent.

TOTAL BENEFIT - COST RATIO: 21.4 to 1 at 3.25 percent (re-evaluated 31 March 2010).

INITIAL BENEFIT - COST RATIO: 1.3 to 1.0 at 5 percent (FY 1972).BASIS OF BENEFIT - COST RATIO: Benefits are based on General Design Memorandum Number 1, and Supplement Number 1, approved 18 May 1973 at 1971 price levels.

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST	STATUS (1 Jan 2005)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		\$ 333,308,000	Entire Project	TBD	TBD
Programmed Construction	\$ 333,308,000				
Un-programmed Construction	0				
Estimated Non-Federal Cost		\$ 140,692,000			
Programmed Construction	\$140,692,000				
Cash Contributions	\$ 76,570,000				
Other Cost	\$ 64,122,000				
Estimated Non-Federal Cost Un-Programmed Construction	\$ 0				
Cash Contributions	\$				
Other Cost	\$				
Mississippi Valley Division		New Orleans District			Larose to Golden Meadow, Louisiana (Hurricane Protection)

SUMMARIZED FINANCIAL DATA (CONTINUED)

Total Estimated Programmed Construction	\$ 474,000,000
Total Un-Programmed Construction	0
Total Estimated Project Cost	\$ 474,000,000
Allocations to 30 September 2008	\$114,029,500
Allocations for FY 2009	957,000
Allocations for FY 2010	5,800,160
American Recovery and Reinvestment Act Allocations	6,370,160
President's Budget for FY 2011	5,500,000
Allocations for FY 2011	5,500,000
Allocations through FY 2011	\$132,656,660
Budget for FY 2012	\$5,500,000
Programmed Balance to Complete After FY 2012	\$ TBD
Un-programmed Balance to Complete After FY 2012	0

PHYSICAL DATA

Levees	Floodgates	Drainage Structures
Loop levee approximately 48 miles in length along both banks of Bayou Lafourche; enlargement of three miles of levees at Golden Meadow; eight miles of low interior levee to regulate intercepted drainage.	2	Local Pumping Stations

JUSTIFICATION: The project area is of great economic importance to the State of Louisiana, and includes lands and improvements having an aggregate value of approximately \$203,904,000 (1995 prices). The population of the area was 20,000 in 1980 and has increased steadily to 23,865 in 2000. While oil and gas production, commercial fisheries, and related service industries dominate the economy of the area, there is a wide spectrum of economic activity.

Situated within a region of high hurricane incidence (on the average, two hurricanes threaten the Louisiana coast every three years), the project area is highly vulnerable to overflow from the tidal surges which accompany hurricanes. The highest flood stage during the hurricane of 1915 was 5.5 feet at Golden Meadow, taken from a high-water mark. Should a hurricane similar to that of 1915 move through the area, damages of approximately \$10,962,000 (1995 prices) could be expected. Hurricane Juan (1985) was accompanied by flooding of 6.6 feet, as recorded on the Leeville, Louisiana gauge. Damages sustained during Hurricane Juan were \$35,000,000 and at current prices (1995), \$44,866,000. The flood duration was from two days to one week. Damages began at 3 feet, with significant damages at 4.5 feet. Should a major hurricane approaching the standard project hurricane in intensity move through the area, the entire project area would be submerged in the tidal surge, and monetary damages would likely amount to \$86,811,000 (1995 prices). This damage would include minor crop losses, but the

Mississippi Valley Division	New Orleans District	Larose to Golden Meadow, Louisiana (Hurricane Protection)
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bulk of the damage would consist of physical damage to residential, commercial, and industrial establishments. Residential and commercial facilities are valued at \$52,000,000 (1971 prices), excluding contents, plus \$3,500,000 (1971 prices), or \$207,713,000 (1995 price levels). Average annual damages with the project are negligible (zero), while without the project they are \$14,947,000 (1995 price levels). Flood damages prevented on future developments were determined by projecting future damages at rates equal to the projected population growth and bringing them back to present value by applying a discount rate of 3-1/4 percent. Present values were then amortized for the life of the project to obtain average annual benefits on future damages prevented. The relationship between depth of flooding and percent damage of structures and contents was derived from detailed studies of flood damages in the coastal area of Louisiana for four hurricanes, Carla (1961), Hilda (1964), Betsy (1965) and Camille (1969). These in-depth studies were made for flood insurance rate studies conducted by the U.S. Army Corps of Engineers for the Federal Insurance Administration.

Based on the latest hydraulic modeling the project no longer provides 100-year level of risk reduction. The models show the existing project elevations are, in some locations, as much as 14 feet less than required to provide 2085 100-year level of risk reduction. Recent surveys have also revealed that the system is about 12-18 inches deficient in elevation for the authorized project due to subsidence and datum change. To provide increased level of risk reduction a Post Authorization Change Report is required. The draft Post Authorization Change Report is estimated to be completed in the first quarter of Fiscal Year 2012 to include the authorized elevations using the post-Katrina design for resiliency

Lafourche Parish has been determined to be an area of "substantial and persistent" unemployment.

The average annual benefits will be updated in the Post Authorization Change Report.

Annual Benefits	Amount
Flood Control	TBD
Area Redevelopment	TBD
Total	TBD

FISCAL YEAR 2011: The requested amount will be applied as follows:

Construction Award of the GIWW/Larose Floodwall, Reach I	\$5,500,000
Total	\$5,500,000

FISCAL YEAR 2012: The requested amount will be applied as follows:

Construction Award of the GIWW/Larose Floodwall, Reach II	\$5,500,000
Total	\$5,500,000

Mississippi Valley Division	New Orleans District	Larose to Golden Meadow, Louisiana (Hurricane Protection)
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NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Flood Control Act of 1965, the Non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, and rights-of-way, including borrow and dredged material disposal areas (as applicable).	\$ 5,364,000	
Accomplish alterations to roads, pipelines, cables, wharves, oil wells, and any other facilities necessary for construction of the project.	\$ 34,129,000	
Pay 30 percent of the total project cost, to include the items listed above and a cash contribution or equivalent work specifically undertaken as an integral part of the project after authorization and in accordance with construction schedules as required by the Chief of Engineers.	\$101,199,000	
Bear all cost of operation and maintenance including replacements.		\$224,913
Total Non-Federal Cost	\$140,692,000	\$224,913

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: Assurances covering all requirements of local cooperation were received from the South Lafourche Levee District and accepted on behalf of the United States on 29 August 1973. The South Lafourche Levee District has requested and received funds from the State of Louisiana for rights-of-way acquisition and relocations required to support construction work. In addition to lands and damages and relocations, the South Lafourche Levee District has accomplished levee construction, pumping station and administrative/operating work.

COMPARISON OF FEDERAL COST ESTIMATES: The estimated project cost submitted to Congress in 2011 was in error. The total estimated project cost reflects construction authorized in Section 204 Public Law 89-298 of the Flood Control Act of 1965 updated to 2012 price levels. A Post Authorization Change report being prepared will provide the updated cost for the authorized project.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: STATUS OF ENVIRONMENTAL IMPACT STATEMENT:

The original Environmental Impact Statement (EIS) was finalized in 1974, with the Statement of Findings signed on 4 April 1974. A Supplemental EIS (SEIS) was prepared in 1984/1985 to address several design changes, primarily involving realigned levee segments. The Record of Decision for this SEIS was signed on 20 May 1985. An Environmental Assessment (EA) was prepared in 1985/1986 to address mitigation required for the project based on the design evaluated in the

Mississippi Valley Division

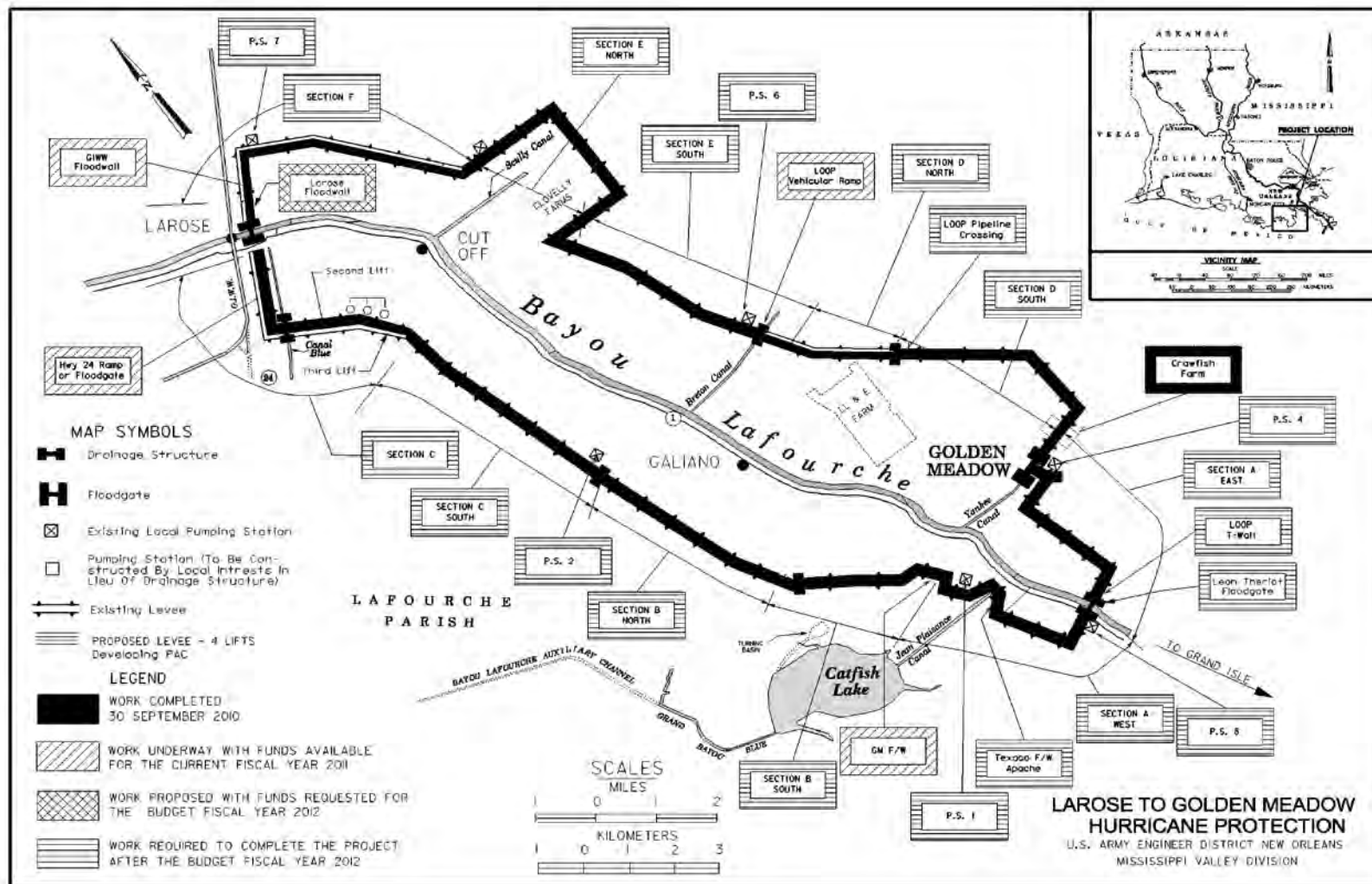
New Orleans District

Larose to Golden Meadow, Louisiana
(Hurricane Protection)

1985 SEIS. Initially the 1985 SEIS was to incorporate this mitigation, but this topic was later separated to become the mitigation EA. The Finding of No Significant Impact for this EA was signed on 18 September 1986. Subsequently, several additional EAs have been prepared to address minor modifications to the project.

A new SEIS will be prepared to address impacts associated with design modifications being examined in a Post Authorization Change study. It is anticipated that preparation of this SEIS will begin in February 2011.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in Fiscal Year 1967, and funds to initiate construction were appropriated in Fiscal Year 1972.



APPROPRIATION TITLE: Construction – Local Protection (Flood Control)

PROJECT: Monarch-Chesterfield, Missouri (Continuing)

LOCATION: The project is located along the right bank of the Missouri River between river miles 46.0 and 38.5. The existing private levee system is 11.5 miles long and protects approximately 4,240 acres from the 100-year flood event.

DESCRIPTION: The Chesterfield project is located along the right bank of the Missouri River between river miles 46 and 38.5. The existing private levee system is 11.5 miles and protects approximately 4,240 acres from the 1 percent annual occurrence flood event (100-year). During the Great Flood of 1993, the existing levee failed causing flood damages in excess of \$200,000,000. The project consists of raising the existing levees on the Missouri River and Bonhomme Creek to provide protection from a .2 percent annual occurrence flood event (500-year) along with relief wells, a sheet pile cutoff, and berms to control underseepage. Other features include roadways, railroad and roadway closure structures, retaining walls, relocations, pumping stations with gravity structures, and environmental mitigation features. All work is programmed.

AUTHORIZATION: The Water Resources Development Act of 2000.

REMAINING BENEFIT-REMAINING COST RATIO: 8.9 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 3.05 to 1 at 7 percent.

INITIAL BENEFIT-COST RATIO: 2.06 to 1 at 5 5/8 percent (FY 2004).

BASIS OF BENEFIT-COST RATIO: Benefits are from the Feasibility Report approved in December 2000 at 2000 price level as amended by the Flood Control Study Supplement, dated June 2003.

SUMMARIZED FINANCIAL DATA		ACCUM. PCT. OF EST. FED. COST	STATUS (1 Jan 2011)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	\$44,647,000			28	TBD
Estimated Non-Federal Cost	24,041,000		Entire Project		
Cash Contributions	\$ 3,434,000				PHYSICAL DATA
Other Costs	20,607,000				Levee: 11.5 miles
Total Estimated Project Cost	\$68,688,000				Pump Stations: 4 (222cfs; 44.5cfs; 133.5 cfs; 273.5 cfs)
Allocations to 30 September 2008	3,440,000				Large Gravity Drains: 8
Allocation for FY 2009	3,349,000				Relief Wells: 33
Allocation for FY 2010	3,147,000				Mitigation features: 12.94 acres
Recovery Act Allocations to Date	11,654,000				Sheetpile cutoff wall: 1,100 feet long by 50 feet deep
President's Budget for FY 2011	3,439,000				
Allocation for FY 2011	3,439,000				Berms: 150 to 300 feet wide and 5 to 15 feet thick
Allocations through FY 2011	25,029,000	56			Road closure structure: 2
Budget for FY 2012	1,351,000	59			Railroad closure structure: 1
Programmed Balance to Complete after FY 2012	18,267,000				
Unprogrammed Balance to Complete after FY 2012	0				

JUSTIFICATION: During the Great Flood of 1993 the levee system breached causing 250 businesses, comprising over 3,000,000 square feet of commercial development to close, 50 residences were evacuated, Interstate 64/U.S. Route 40 was closed for three weeks as were other transportation routes into the area, the Spirit of St. Louis Airport was closed for nearly three months, and the St. Louis County Correctional Institution was forced to evacuate inmates to temporary quarters for up to six months. Estimated flood damages totaled in excess of \$200,000,000. The present value of properties that will be protected by the project are \$505,000,000. The average annual benefits, all flood control, are \$8,871,099. Average annual damages without the project are \$9,355,226, while the average annual damages with the project are \$484,127, a reduction of 95 percent.

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Monarch-Chesterfield, Missouri

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FISCAL YEAR 2011: Current year funds will be used as follows:

Watershed 5 Pump Station Construction	\$ 2,748,500
Planning, Engineering, and Design	545,500
Construction Management	145,000
Total	\$3,439,000

FISCAL YEAR 2012: The requested amount will be applied as follows:

Construct Centaur Road raise	\$ 850,000
Planning, Engineering, and Design	348,000
Construction Management	153,000
Total	\$1,351,000

NON-FEDERAL COST: In accordance with the cost-sharing and financing concepts contained in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation Maintenance, Repair Rehabilitation, and Replacement Costs
Provide lands, easements, and rights-of-way.	\$13,061,000	\$0
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project	30,000	\$0
Pay 35 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 35 percent as determined under Section 103(m) of the Water Resources Development Act of 1986, as amended, to reflect the non-Federal sponsor's ability to pay as reduced for credit allowed based on prior work (Section 104 of the Water Resources Development Act of 1986) as amended; and bear all costs of operation, maintenance, repair, rehabilitation, and replacement of flood control facilities.	10,950,000	\$80,506
Total Non-Federal Costs	\$24,041,000	\$80,506

Mississippi Valley Division

St. Louis District

Monarch-Chesterfield, Missouri

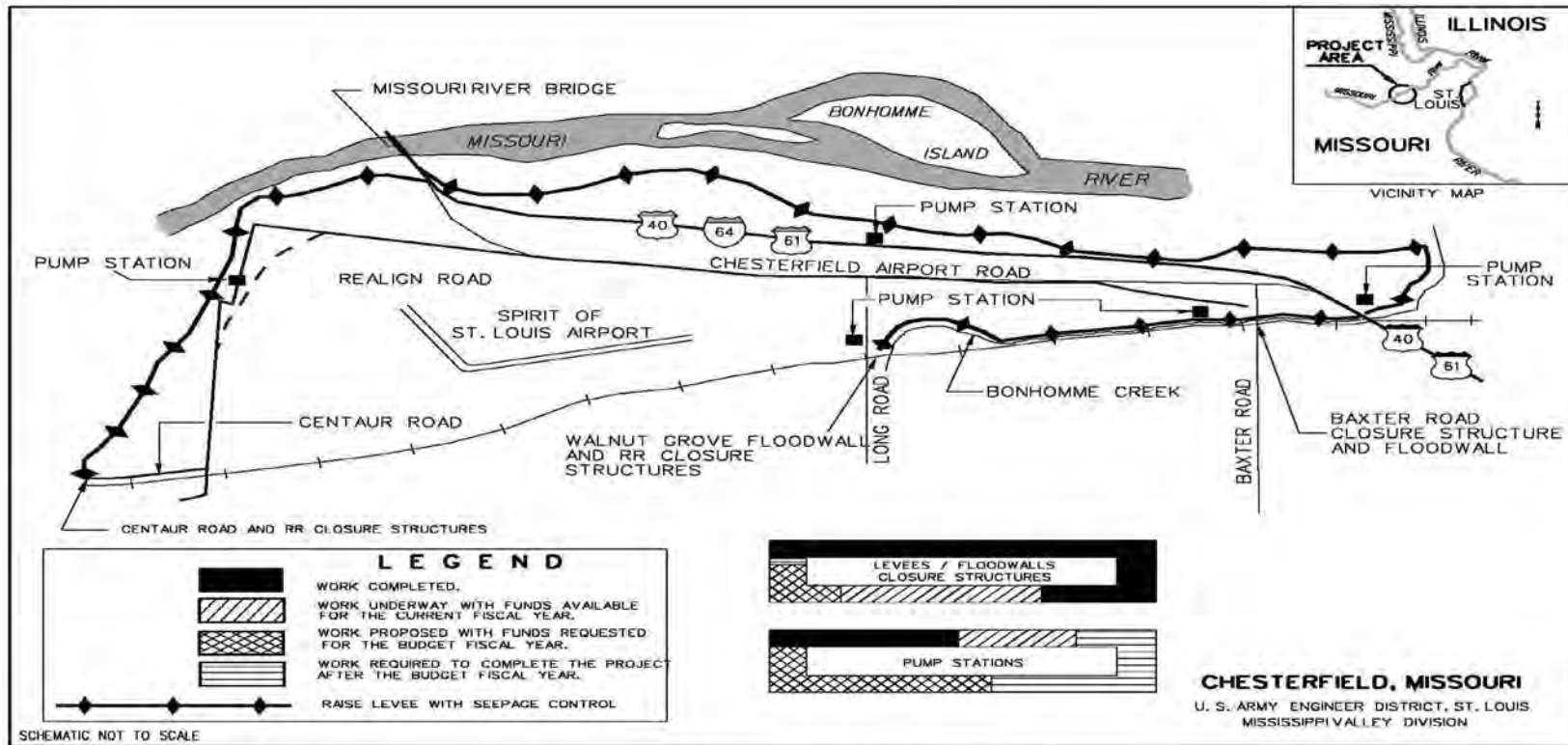
STATUS OF LOCAL COOPERATION: The local sponsor for this project is the Monarch-Chesterfield Levee District. The Project Cooperation Agreement was executed 1 February 2008. The local sponsor has received approval from the Assistant Secretary of the Army (Civil Works) for three credit applications of work. These applications included: 1) construction of three pump stations within the protected area, 2) levee improvement from Centaur Road to Interstate 64/U.S. 40, and 3) realignment of the levee near Boone's Crossing Interchange and levee improvement along the left bank of Bonhomme Creek. The Levee District has not been reimbursed for the credits.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$44,647,000 is the same as that last presented to Congress (FY 2011).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement was filed with EPA in October 2000 and published in the Federal Register on 9 November 2000.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 2001. Funds to initiate construction were appropriated in FY 2004.

Fish and wildlife mitigation costs are \$10,300.



APPROPRIATION TITLE: Construction – Local Protection (Flood Control)

PROJECT: St. Louis Flood Protection, Missouri and Illinois (Continuing)

LOCATION: The St. Louis Flood Protection Project is located in St. Louis, Missouri, on the right bank of the Mississippi River between Miles 176.3 and 187.2, above the mouth of the Ohio River.

DESCRIPTION: The existing project consists of 11-miles of flood protection by combination of 35,614 feet of floodwalls, 20,700 feet of levees, 33 street and railroad closure structures, 28 pump stations, gravity drains, subdrains, relief wells, sheet pile cutoff walls, and pressure sewer emergency closure gatewells. The project protects approximately 3,160 acres of industrial and commercial development. The flood protection system was constructed with inadequate closure structures and underseepage protection. These design deficiencies must be corrected to ensure that the system provides its authorized level of service. The recommended rehabilitation includes replacing swing gates at 20 closure structures, permanently closing openings at 13 closure structures, installing 70 new relief wells and replacing 103 existing relief wells needed to improve underseepage control, and planting hardwoods to mitigate for 0.1 acre of impact. All work is programmed.

AUTHORIZATION: Public Law 84-256 dated 9 August 1955.

REMAINING BENEFIT-REMAINING COST RATIO: 61.6 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 3.98 to 1 at 7 percent.

INITIAL BENEFIT-COST RATIO: 4.98 to 1 at 5 1/8 percent (FY 2008).

BASIS OF BENEFIT-COST RATIO: Benefits are based on the Reconstruction Reevaluation Report at October 2005 price level.

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST	STATUS (1 Jan 2011)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	13,100,000		Entire Project	21	TBD
Estimated Non-Federal Cost	7,054,000				
Cash Contributions	7,054,000		PHYSICAL DATA:		
Other	0				
 Total Estimated Project Cost	 \$20,154,000		Levee (main line)	11 miles	
Allocations to 30 September 2008	3,531,000		Relief wells – existing	103	
Allocation for FY 2009	3,500,000		Relief wells – new	70	
Allocation for FY 2010	485,000		Closure structures	33	
Recovery Act Allocations to Date	2,165,000				
President’s Budget for FY 2011	100,000				
Allocation for FY 2011	100,000				
Allocations through FY 2011	9,781,000	75			
Budget for FY 2012	100,000	75			
Programmed Balance to Complete after FY 2012	3,219,000				
Unprogrammed Balance to Complete after FY 2012	0				

JUSTIFICATION: The flood frequency against which protection is to be provided is 800-year. River stage exceeds flood stage in approximately 1 out of every 2 years at the St. Louis Flood protection. For the design event and the without project condition, the average depth and velocity affecting most of the area is 22 feet and 7 feet per second, respectively. For the design event and the without project condition, the average warning time affecting most of the area is 12 hours, and the limiting factor to leave most of the benefit area is several dozen roads. During the flood of 1993, the system’s current flood of record, portions of the levee experienced unexpected seepage problems that had to be handled on an emergency basis. The flood of record occurred during the summer of 1993 when the St. Louis gage recorded 49.58 ft. River elevations were above flood stage from 3 April to 7 October 1993. The frequency interval of that event was approximately 300-years. The project endured two other significant flood events: 43.3 feet on the St. Louis gage in 1973 and 41.9 feet on the St. Louis gage in 1995. The most recent flood was in 2002 which was approximately 37 feet on the St. Louis gage and was approximately an 8-year flood. In 1993, a severe underseepage floodwall foundation blow out occurred immediately east of Riverview Boulevard. On July 22, 1993, with a Mississippi River level at 46.9 feet on the St. Louis gage, a geyser of seepage water and foundation material that was gushing up from underneath the floodwall monolith on the landside of the floodwall was observed to be 4 feet high and 18 inches in diameter. With the floodwall monolith in imminent danger of collapse from loss of foundation materials that had eroded away by the uncontrolled seepage, extraordinary emergency flood fight measures were required to prevent disastrous flooding of the protected area. Hundreds of tons of crushed stone were rushed to the failing floodwall monoliths and dumped over the geyser, which slowed down the flows. During the ensuing months after the Flood of 1993, four floodwall monoliths were demolished, the foundation was replaced with a compacted clay backfill and a sheet pile cutoff wall to bedrock that completely blocks underseepage flows at this location, and the floodwall monoliths were reconstructed. The flood of 1993 showed that the City of St. Louis flood

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control project has a deficiency related to underseepage, and most likely will not function safely with floods of the design level of 52.0 feet on the St. Louis Gage because of inadequate underseepage control features. As time continues to pass without corrections being undertaken the probability that the project will fail continues to increase. As the flood protection continues to age, many components of the system will reach their design life. Flood fighting could be especially difficult if underseepage issues are not addressed. Even with proper maintenance, continued deterioration of the system and lack of correction will threaten the ability of the flood protection system to prevent interior damages from a major flood. If the City of St. Louis experiences a flood protection system failure during a major flood, inundation damages have been estimated at upwards of \$1,000,000,000 in the City of St. Louis. The St. Louis Flood Protection levee protects a floodplain population of several hundred thousand people as well as major industrial and commercial businesses, one major sewage treatment plant, and several dozen roads. Deficiency corrections are necessary to ensure the proper functioning of the underseepage system of the existing project which protects a high value industrial area with significant transportation, power and sewage treatment infrastructures. The City of St. Louis would face potential risk to human safety and loss of jobs, property, and industrial production. Relief well failure can be sudden and catastrophic. The City of St. Louis and areas downstream would also incur significant environmental degradation due to the many chemical plants and a radioactive waste site in the protected area. Failure of the flood protection system would inundate areas that have nuclear contaminants, superfund sites, a sewage treatment plant, and industries such as plating factories. These contaminants would be redistributed with the floodplain and carried into the Mississippi River. This project, in addition to preventing damages to property, is effective in reducing a high risk to life for the populations in the project area. That risk must be considered in evaluating the project justification in addition to economic analyses. Risk is created by both hydrologic factors (flood depth, velocity, and short warning time) and cultural factors (size of population and available routes of egress from the flood plain). The average annual damages without the project are \$3,505,000 and with the project are \$97,000. The average annual benefits for the total project are \$3,429,000.

FISCAL YEAR 2011: The current year funds will be used as follows:

Planning, Engineering, and Design	25,000
Construction Management	75,000
Total	\$100,000

FISCAL YEAR 2012: The requested amount will be applied as follows:

Planning, Engineering, and Design	25,000
Construction Management	75,000
Total	\$100,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Pay 35 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 35 percent as determined under Section 103 (m) of the Water Resources Development Act of 1986, as amended, to reflect the non-Federal sponsor's ability to pay and bear all cost of operation, maintenance, repair, rehabilitation and replacement of flood control features.	\$7,054,000	
Total Non-Federal Costs	\$7,054,000	\$94,500

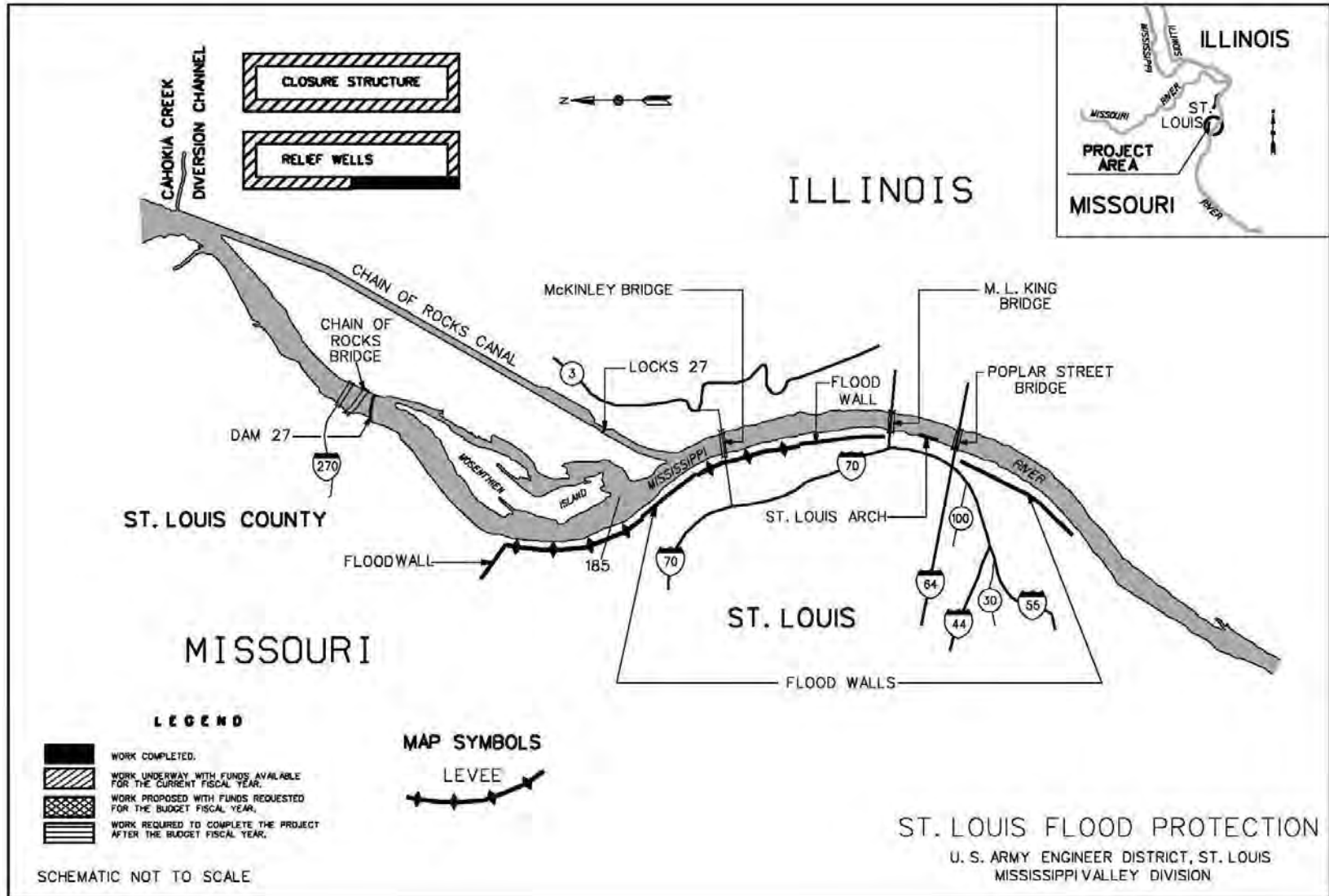
Local interests are also required to operate and maintain all works after completion.

STATUS OF LOCAL COOPERATION: The City of St. Louis is the local sponsor for the project. The Project Partnership Agreement was executed 29 February 2008.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$13,100,000 is the same as the latest estimate presented to Congress (FY 2011).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An environmental assessment was completed in July 2005 and a Finding of No Significant Impact was signed on 27 July 2005.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design (PED) were appropriated in FY 2000. Funds to initiate construction were appropriated in FY 2008. This project requires minimal mitigation for removal of 0.1 acre of forest for relief well installation.



Mississippi Valley Division

St. Louis District

St. Louis Flood Protection,
Illinois & Missouri

14 February 2011

MVD-47

APPROPRIATION TITLE: Construction – Local Protection (Flood Control)

PROJECT: Wood River Levee, Illinois – (Deficiency Correction and Reconstruction) (Continuing)

LOCATION: The Wood River Levee Project is located in Madison County, Illinois, along the left bank of the Mississippi River between river miles 195 and 203 above the Ohio River.

DESCRIPTION: The proposed project includes rehabilitation of 21 miles of levee, replacing 163 of 170 existing relief wells and installing 60 new relief wells as a deficiency correction under the existing project authorization. Results of more detailed analysis indicate that seepage berms and possibly cutoff trenches may be required in lieu of relief wells. The reconstruction portion of the project includes gravity drains, pump stations, and closure structures.

AUTHORIZATION: Section 4 of Flood Control Act of 1938; Section 103 of Water Resources Development Act (WRDA) of 1986 as amended by Section 202 of WRDA 1996; Section 1001(20) of WRDA 2007.

REMAINING BENEFIT-REMAINING COST RATIO: 14.3 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 2.57 to 1 at 7 percent.

BASIS OF BENEFIT-COST RATIO: Benefits are based on the General Reevaluation Report dated March 2006 at October 2005 price level.

RISK INDEX: 55

BASIS OF RISK INDEX: The Risk Index is computed during budget development using the following: risk velocity times the risk depth times the population at risk, all divided by the warning time.

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST	STATUS (1 Jan 2011)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
			Entire Project	40	TBD
Estimated Federal Cost	24,427,000		PHYSICAL DATA:		
Estimated Non-Federal Cost	13,154,000		Levee (main line)	21 miles	
Cash Contributions	13,012,000		Relief wells - existing	170	
Other Costs	142,000		Relief wells – new	60	
Total Estimated Project Cost	37,581,000		Closure structures	26	
Allocations to 30 September FY 2008	1,552,000		Gravity drains	41	
Allocation for FY 2009	2,632,000		Pump stations	7	
Allocation for FY 2010	1,105,000				
Recovery Act Allocations to Date	14,353,000				
President’s Budget for FY 2011	1,098,000				
Allocation for FY 2011	1,098,000				
Allocations through FY 2011	20,740,000	85			
Budget for FY 2012	830,000	88			
Programmed Balance to Complete after FY 2012	2,857,000				

JUSTIFICATION: The levee district is protected by an urban design levee, across the Mississippi River from St. Louis and St. Charles counties in Missouri. This existing system includes approximately 21 miles of main line levee, 170 existing relief wells of which 7 are wells installed in 1985 and are not part of the deficiency correction, 26 closure structures, 41 gravity drains of which 3 have been fixed due to emergency, and 7 pump stations. It provides flood protection for residential, commercial, and industrial structures located within a 21.4 square mile area. There are approximately 13,700 acres of bottomland within the district and 4,700 acres of hill land tributary to the levee units. The study area lies in the Mississippi River flood plain of Madison County, Illinois, just upstream of the City of East St. Louis. The flood frequency against which protection is to be provided is 500 year. The maximum flood of record occurred in 1993 when the St. Louis gage recorded 49.58 feet which was approximately a 200-year flood at the Wood River levee. River stage exceeds flood stage in approximately three out of every four years at the Wood River levee. The most recent flood was in 2002 which was approximately 11 feet over flood stage and was about a 10-year flood. For the design event and the without project condition, the average depth and velocity affecting most of the area is 22 feet and 2 feet per second, respectively. In the event of a design flood, overtopping would occur and average warning time is estimated to be 24 hours; however, in case of catastrophic event occurrence (underseepage failure), estimated warning time is less than 6 hours. The limiting factor to leave most of the benefit area is several dozen roads. Certain reaches of the levee system could become unstable during high water events. Levee reaches that presented problems in 1993 will worsen while new reaches will present similar problems. Failure of this levee would produce tremendous economic loss and create an unprecedented environmental disaster as well as impact the defense and national security needs as the levee system protects a large refinery (10th largest U.S. refinery of gasoline, jet and diesel fuel), chemical manufacturing, and munitions production area as well as an urban residential area. It could adversely impact downstream levee systems (East St. Louis). At a

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St. Louis District

Wood River Levee, Illinois

conservative estimate of \$125,000 per acre of clean up costs, a loss of this levee would result in environmental damages exceeding \$2,000,000,000 not including the relocation costs of residents and future loss of agriculturally productive land. Development is expected to continue on the interior as a major Interstate Highway has recently opened in the levee district. The connection that this new highway makes to the regional interstate system increases the likelihood of future development in the project area. At current estimates, levee failure would cost approximately \$1,500,000,000 in economic damages to residential, commercial and industrial buildings and would shut down transport between Illinois and Missouri at St. Louis as bridge approaches could be submerged. This project, in addition to preventing damages to property, is effective in reducing a high risk to life for the populations in the project area. That risk must be considered in evaluating the project justification in addition to economic analyses. Risk is created by both hydrologic factors (flood depth, velocity, and short warning time) and cultural factors (size of population and available routes of egress from the flood plain). The average annual damages without the project are \$3,865,000, and with the project are \$1,200,800. The average annual benefits for the project, all flood control, are \$2,664,200.

FISCAL YEAR 2011: The current year funds will be used as follows:

Complete closure structure	690,000
Planning, Engineering, and Design	390,000
Construction Management	18,000
Total	\$ 1,098,000

FISCAL YEAR 2012: The requested amount will be applied as follows:

Continue pump stations	\$ 261,000
Continue gravity drains	345,000
Planning, Engineering, and Design	176,000
Construction Management	48,000
Total	\$ 830,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, rights-of-way, and dredged material disposal areas.	\$ 142,000	
Pay 35 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 35 percent as determined under Section 103 (m) of the Water Resources Development Act of 1986, as amended, to reflect the non-Federal sponsor's ability to pay and bear all cost of operation, maintenance, repair, rehabilitation and replacement of flood control features.	\$13,012,000	
Total Non-Federal Costs	\$13,154,000	100,856

Local interests are also required to operate and maintain all works after completion.

STATUS OF LOCAL COOPERATION: The Wood River Drainage and Levee District is the local sponsor for the project. The Project Partnership Agreement was executed on 30 June 2008.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$24,427,000 is the same as the latest estimate submitted to Congress (FY 2011).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An environmental assessment was completed in July 2005. A Finding of No Significant Impact was signed on 23 March 2006.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 2000, and construction funds were appropriated in FY 2008. Correction of performance problems that resulted from deficiencies (relief wells) would not require further authorization. Deficiency correction and reconstruction project features will be cost shared 65 percent Federal and 35 percent non-Federal in accordance with Section 103 of WRDA 1986, as amended by Section 202 of WRDA 1996.

The current approved General Reevaluation Report recommended that the project requires no mitigation. Depending on the recommendations of the ongoing Limited Reevaluation Report, mitigation may be required for work covered by that study.

Mississippi Valley Division

St. Louis District

Wood River Levee, Illinois

NAVIGATION

INVESTIGATIONS

APPROPRIATION TITLE: Investigations, Fiscal Year 2012

Mississippi Valley Division

Project	Total Estimated Federal Cost \$	Allocation Prior To FY 2009 \$	Allocation FY 2009 \$	Allocation FY 2010 \$	Allocation FY 2011 \$	Tentative Allocation FY 2012 \$	Additional to Complete After FY 2012 \$
PRECONSTRUCTION ENGINEERING AND DESIGN (PED) ACTIVITIES – (NAVIGATION)							
Bayou Sorrel Lock, LA New Orleans District	12,747,000	6,462,000	1,299,000	986,000	2,000,000	2,000,000	0

Bayou Sorrel Lock is a component of the Mississippi River and Tributaries (MR&T), Atchafalaya Basin, LA Project. The lock provides navigation access, while maintaining a continuous line of protection against the MR&T project design flood flow. The project flood flow line for the Atchafalaya Basin was modified in 1986 to the current elevation of 28.7 feet National Geodetic Vertical Datum (NGVD). In order to maintain the level of flood protection provided by the Atchafalaya Basin, LA Project, the lock must be modified or replaced. The need to modify Bayou Sorrel Lock presents an opportunity to address increasing navigation concerns at this lock. Preconstruction engineering and design of the modification or replacement of the lock for flood reduction benefits was delayed until the optimum navigation plan could be studied. The feasibility study was approved in March 2004. The recommended plan consists of replacing the existing lock with a new 75- by 1,200- foot concrete chamber lock immediately adjacent to the existing lock. Preconstruction engineering and design cost is being conducted with Federal funds.

Total Estimated Preconstruction Engineering and Design Costs	\$12,747,000	Total Estimated Preconstruction Engineering and Design Costs	\$12,747,000
Initial Federal Share	12,747,000	Ultimate Federal Share	12,747,000
Initial Non-Federal Share	0	Ultimate Non-Federal Share	0

FY 2011 funds are being used to confirm the need for a Post Authorization Change Report (PAC). Thirty-five percent design cost estimate demonstrates that the project cannot be executed at the amount authorized in WRDA 2007 for the navigation component. Cost estimates have been updated and a PAC is required.

Funds requested for FY 2012 will be used to complete the PAC Report for submittal to Congress for authorization. The project was authorized for construction by the WRDA of 2007, Public Law 110-114.

APPROPRIATION TITLE: Investigations, Fiscal Year 2012

Mississippi Valley Division

Study	Total Estimated Federal Cost \$	Allocation Prior To FY 2009 \$	Allocation FY 2009 \$	Allocation FY 2010 \$	Allocation FY 2011 \$	Tentative Allocation FY 2012 \$	Additional To Complete After FY 2012 \$
Calcasieu Lock, LA New Orleans District	\$7,063,000	2,401,000	574,000	1,002,000	1,000,000	1,000,000	1,086,000

Calcasieu Lock is a feature of the Gulf Intracoastal Waterway between Appalachee Bay, Florida, and the Mexican Border Project. The lock is located east of the Calcasieu River, approximately 10 miles south of Lake Charles, Louisiana, in Calcasieu Parish. The lock prevents saltwater intrusion from the Calcasieu River into the Mermentau River basin, a major rice producing area. Calcasieu Lock, which was completed in 1950, has dimensions of 13 by 75 by 1,206 feet and is structurally sound. The lock is congested due to increasing traffic. The Calcasieu Lock Section 905(b) analysis supports a benefit-cost ratio of 1.2:1 for provision of a new lock and recommended proceeding with feasibility phase studies. The study is addressing the feasibility of measures to replace or supplement the existing lock to reduce navigation delays. The study is 100 percent Federally funded. The anticipated output of improved navigation efficiency is in accord with Administration policy.

Fiscal Year 2011 funds are being used to develop a Hydrologic Engineer Center-River Analysis System (HEC-RAS) model to define without-project conditions, continue economic evaluations of project benefits, initiate preliminary design of alternative plans, and continue the environmental evaluation for the project. Efforts for 2011 also include the development and evaluation of geotechnical input for the project to begin the formulation of alternatives for the study.

Funds requested for Fiscal Year 2012 will be used to continue feasibility study efforts, including the completion of the economic analysis, continuation of environmental analysis, and continuation of alternative plan designs. Study tasks for 2012 include the Alternative Formulation Briefing and completion of the draft report and EIS, and all subsequent reviews.

The reconnaissance phase was completed in February 2001. The feasibility study completion date is to be determined.

CONSTRUCTION

APPROPRIATION TITLE: Construction – Major Rehabilitation – Locks and Dams (Navigation)

PROJECT: Locks No. 27, Mississippi River, Illinois (Major Rehabilitation) (Continuing)

LOCATION: Locks 27 is located in Madison County, Illinois, on the Chain of Rocks Canal at approximately Mile 185.1 above the mouth of the Ohio River in Granite City, Illinois.

DESCRIPTION: The project plan provides for the rehabilitation of portions of the structure. The work will include replacement of the main lock lift gate downstream leaf, culvert valves for both locks, the lock bulkheads lifting beam, lock lighting, culvert valve machinery for both locks, the main lock miter gate, the downstream bulkhead sill stability anchorages in both locks, and the upstream protection cell; restoration of lockwall stability using drilled tiedowns; and improvements to river training structures at the canal lower entrance. All work is programmed.

AUTHORIZATION: River and Harbor Act of 1945, Water Resources Development Acts of 1986 and 1992.

REMAINING BENEFIT-REMAINING COST RATIO: 44.4 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 3.47 to 1 at 7 percent.

INITIAL BENEFIT-COST RATIO: 3.77 to 1 at 6.375 percent (FY 2004, Rehabilitation Report, Mar 2002).

BASIS OF BENEFIT-COST RATIO: Based on Major Rehabilitation Report, Locks No. 27, Mississippi River, March 2002, approved 19 August 2002.

SUMMARIZED FINANCIAL DATA		STATUS (1 Jan 2011)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	\$38,837,000	Entire Project	45	TBD
General Appropriation	\$34,268,500			
Inland Waterways Trust Fund	4,568,500			
Estimated Non-Federal Cost	0			
Total Estimated Project Cost	\$38,837,000 ¹			

Mississippi Valley Division

St. Louis District

Locks No. 27, Mississippi River, Illinois,

SUMMARIZED FINANCIAL DATA (Continued)	GENERAL APPNS	INLAND WATERWAYS TRUST FUND	ACCUM PCT OF EST FED COST
Allocations to 30 September 2008	\$3,418,500	\$3,418,500	
Allocation for FY 2009	2,486,000	0	
Allocation for FY 2010	50,000	0	
Recovery Act Allocations to Date	28,314,000	0	
President's Budget for FY 2011	0	350,000	
Allocation for FY 2011	0	350,000	
Allocations through FY 2011	34,268,500	3,768,500	98%
Budget for FY 2012	0	100,000	98%
Programmed Balance to Complete After FY 2012	0	700,000	
Unprogrammed Balance to Complete After FY 2012	0	0	

^{1/}In accordance with the cost-sharing and financing concepts reflected in the Water Resources Development Act of 1986, 50 percent of the total cost of construction will be derived from the Inland Waterways Trust Fund (IWTF) when use of the IWTF is authorized for the project. On 1 May 2009, the Assistant Secretary of the Army for Civil Works authorized the use of ARRA funds, with no matching IWTF funds.

PHYSICAL DATA

Lock Rehabilitation – 110 feet wide x 1,200 feet long Main Lock
– 110 feet wide x 600 feet long Auxiliary Lock

JUSTIFICATION: Locks 27 has been operating for over 50 years. While ordinary maintenance has been performed to keep the facility operating, the wear and tear on some items is beyond ordinary maintenance. To provide an acceptable level of reliability, major rehabilitation of various structural, electrical, and mechanical components of the facility must be undertaken. Locks 27 opens the doors to navigation and commerce on the Mississippi, Illinois, and Missouri Rivers. These locks are the first (for upbound tows) and the last (for downbound tows) in a series of 37 locks that define commercial navigation in the Midwest. Annually Locks 27 has about 10,000 lockages resulting in about 70 million tons of products (grain, coal, chemicals and fertilizers, iron and steel products, petroleum) contained in over 75,000 barges. When Locks 27 is closed due to equipment failures, shipping stops or is severely curtailed adding increased costs to the delivery of the products in transit. The average annual benefits (all navigation) are \$10,563,000.

Mississippi Valley Division

St. Louis District

Locks No. 27, Mississippi River, Illinois,

FISCAL YEAR 2011: Funds will be used to:

Initiate work on As- Built Drawings and O&M Manuals	\$250,000
Construction Management	100,000
Total	\$350,000

FISCAL YEAR 2012: The requested amount will be applied as follows:

Complete As-Built Drawings and O&M Manuals	\$100,000
Total	\$100,000

NON-FEDERAL COST: In accordance with the cost-sharing and financing concepts reflected in the Water Resources Development Act of 1986, 50 percent of the total cost of construction will be derived from the Inland Waterways Trust Fund.

STATUS OF LOCAL COOPERATION: None required.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$38,837,000 is an increase of \$1,464,000 from the latest estimate (\$37,373,000) presented to Congress (FY 2011). This change includes the following item:

Item	Amount
Post Contract Award and Other Estimating (including Contingency) Adjustments	\$1,464,000
Total	\$1,464,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The environmental assessment resulted in a Finding of No Significant Impact, which was signed 28 February 2002. The rehabilitation reports were coordinated with the U.S. Fish and Wildlife Service, U.S. Environmental Protection Agency, and the Missouri and Illinois Departments of Conservation. The U.S. Fish and Wildlife Service concurred with the biological assessments contained in the environmental assessment.

The project requires no mitigation.

OTHER INFORMATION: Funds to initiate construction were appropriated under Construction in Fiscal Year 2008. With the ARRA funding, the project is projected to be completed in FY 2013.

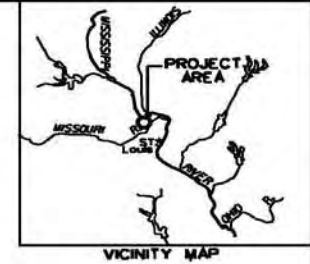
Mississippi Valley Division

St. Louis District





Locks No. 27, Mississippi River, Illinois,



Aerial View of Lock No. 27
(Looking Downstream)



LEGEND

-  WORK COMPLETED.
-  WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR.
-  WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR.
-  WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR.

**LOCK NO. 27
MISSISSIPPI RIVER, ILLINOIS
(MAJOR REHABILITATION)**

U. S. ARMY ENGINEER DISTRICT, ST. LOUIS
MISSISSIPPI VALLEY DIVISION

APPROPRIATION TITLE: Construction – Channels and Harbors (Navigation)

PROJECT: Mississippi River Between the Ohio and Missouri Rivers (Regulating Works), Missouri and Illinois (Continuing)

LOCATION: The project involves improvement of the Mississippi River from the mouth of the Ohio River to the mouth of the Missouri River at river mile 195 above the mouth of the Ohio River. The project covers the following counties: (Missouri) St. Louis, Jefferson, Ste. Genevieve, Perry, Cape Girardeau, Scott, Mississippi; (Illinois) Madison, St. Clair, Monroe, Randolph, Jackson, Union, Alexander, and Pulaski.

DESCRIPTION: The project consists of a navigation channel 9 feet deep and not less than 300 feet wide with additional width in bends, from the mouth of the Ohio River to the mouth of the Missouri River, a distance of approximately 195 miles. Project improvements are achieved by means of dikes, revetment, construction dredging, and rock removal. All work is programmed.

AUTHORIZATION: River and Harbor Acts of 1910, 1927, and 1930.

REMAINING BENEFIT-REMAINING COST RATIO: 9.1 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 5.3 to 1 at 7 percent.

INITIAL BENEFIT-COST RATIO: 7.2 to 1 at 2.5 percent (FY 1961).

BASIS OF BENEFIT-COST RATIO: Benefits are based on the Upper Mississippi River Master Plan Report of 1982 at 1986 price levels.

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST	STATUS (1 Jan 2011)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	\$350,000,000		Entire Project	80	TBD
Estimated Non-Federal Cost	0				
Cash Contributions	0				
Other Cost	0				
PHYSICAL DATA					
Total Estimated Project Cost	\$350,000,000		195 miles of navigation channel Ohio River to mouth of Missouri River 9 feet deep x 300 feet wide		
Allocations to 30 September 2008	\$221,257,000				
Allocation for FY 2009	4,795,000				
Allocation for FY 2010	548,000				
Recovery Act Allocations to Date	23,964,000				
President's Budget for FY 2011	4,345,000				
Allocation for FY 2011	4,345,000				
Allocations through 30 September 2011	254,909,000	73			
Budget for FY 2012	7,320,000	75			
Programmed Balance to Complete After FY 2012	87,771,000				
Unprogrammed Balance to Complete After FY 2012	0				

JUSTIFICATION: The Mississippi River between the Ohio and Missouri Rivers is a major artery of the inland waterway system. Commerce in this reach has increased from 4,500,000 tons in 1945 to 109,832,639 tons in 2007 worth approximately \$15 billion. Commerce is expected to increase to 167,000,000 tons by the year 2020; therefore, it is essential that construction of project works be continued at a rate which will insure 9-foot channel depths for a year-round navigation season. The average annual benefits, all navigation, are \$261,809,000.

Mississippi Valley Division St. Louis District

Mississippi River Between the Ohio
and Missouri Rivers (Regulating Works),
Missouri and Illinois

FISCAL YEAR 2011: Current year funds will be used as follows:

Initiate Mosenthein-Ivory Phase 3 Dike and Revetment contract	\$2,630,000
Complete Eliza Point Dike and Revetment contract	170,000
Continue bankline stabilization through tree planting at Thompson Bend Riparian Corridor	70,000
Planning, Engineering, and Design	775,000
Construction Management	700,000
Total	\$4,345,000

FISCAL YEAR 2012: The requested amount will be applied as follows:

Initiate and complete Mosenthein-Ivory Phase 4 Dike and Revetment Contract	\$3,000,000
Initiate and complete Dogtooth Bend, Phase 4 Dike and Revetment Contract	2,000,000
Complete Mosenthein-Ivory Phase 3 Dike and Revetment Contract	850,000
Continue bank line stabilization through tree planting at Thompson Bend Riparian Corridor	75,000
Planning, Engineering, and Design	800,000
Construction Management	595,000
Total	\$7,320,000

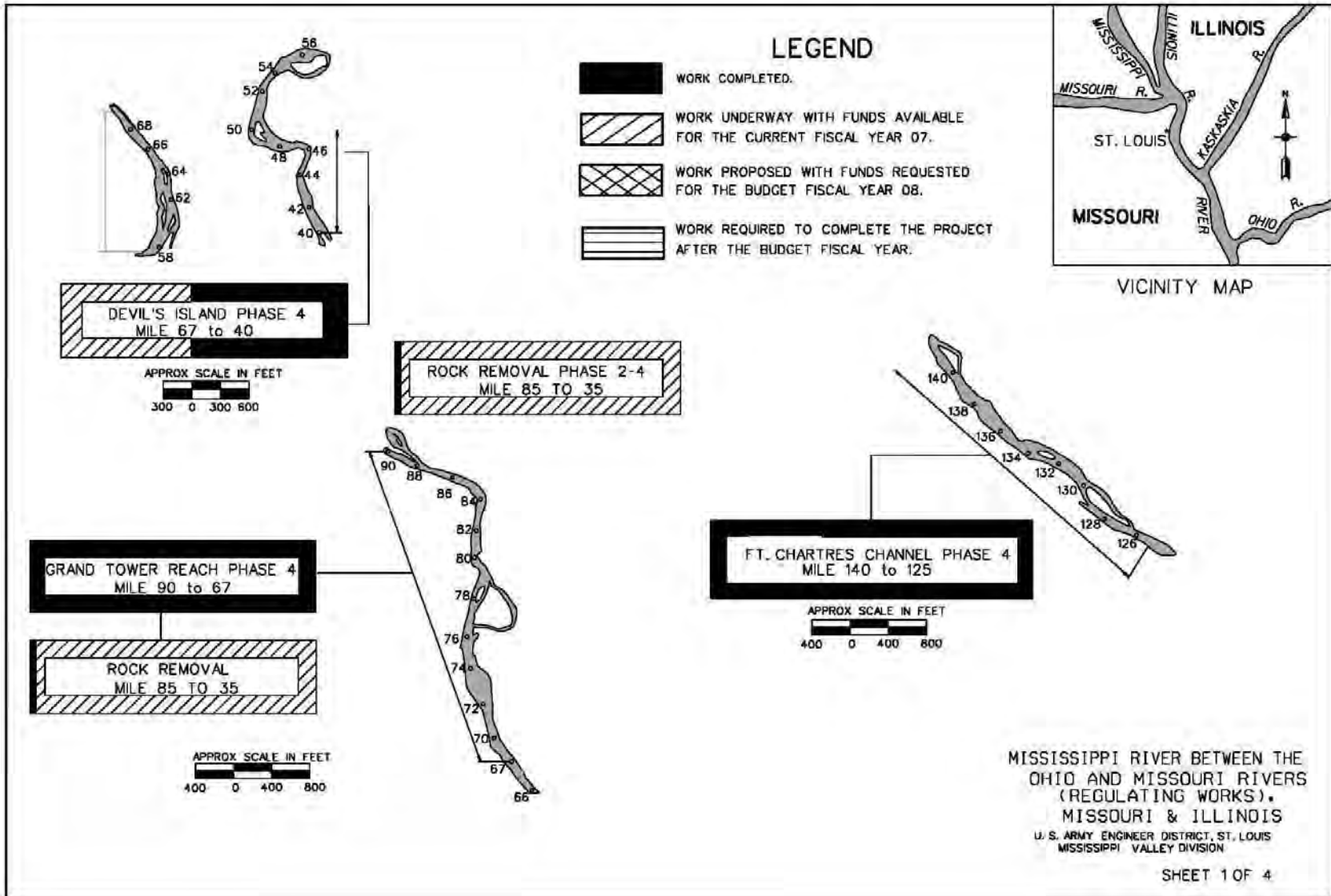
NON-FEDERAL COST: None.

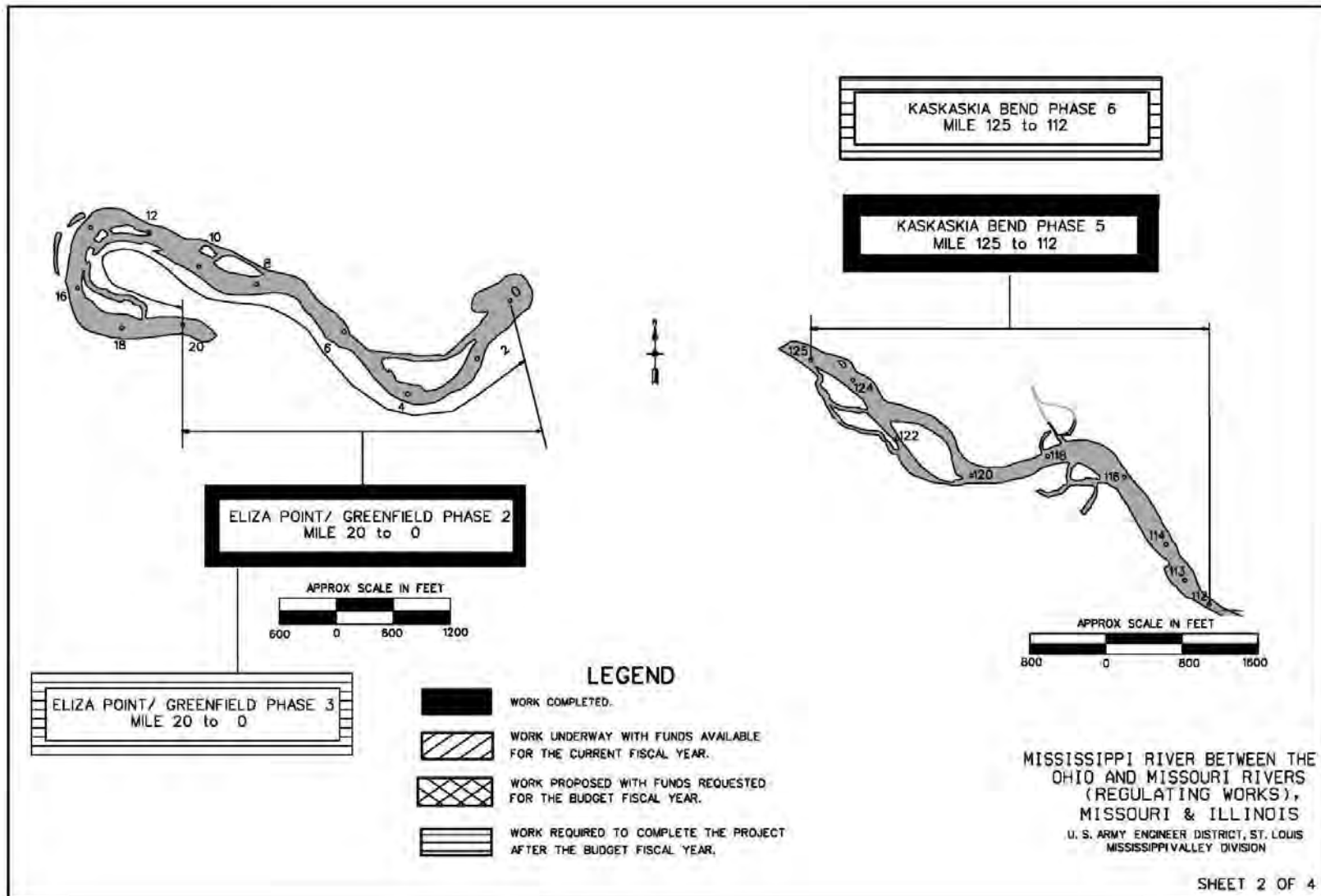
STATUS OF LOCAL COOPERATION: Not applicable.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$350,000,000 is the same as that last presented to Congress (FY 2011).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement was filed with the Council on Environmental Quality on 8 April 1976 and published in the Federal Register on 23 April 1976. An Environmental Analysis was completed for the Rock Removal and Finding of No Significant Impact signed on 28 October 1988.

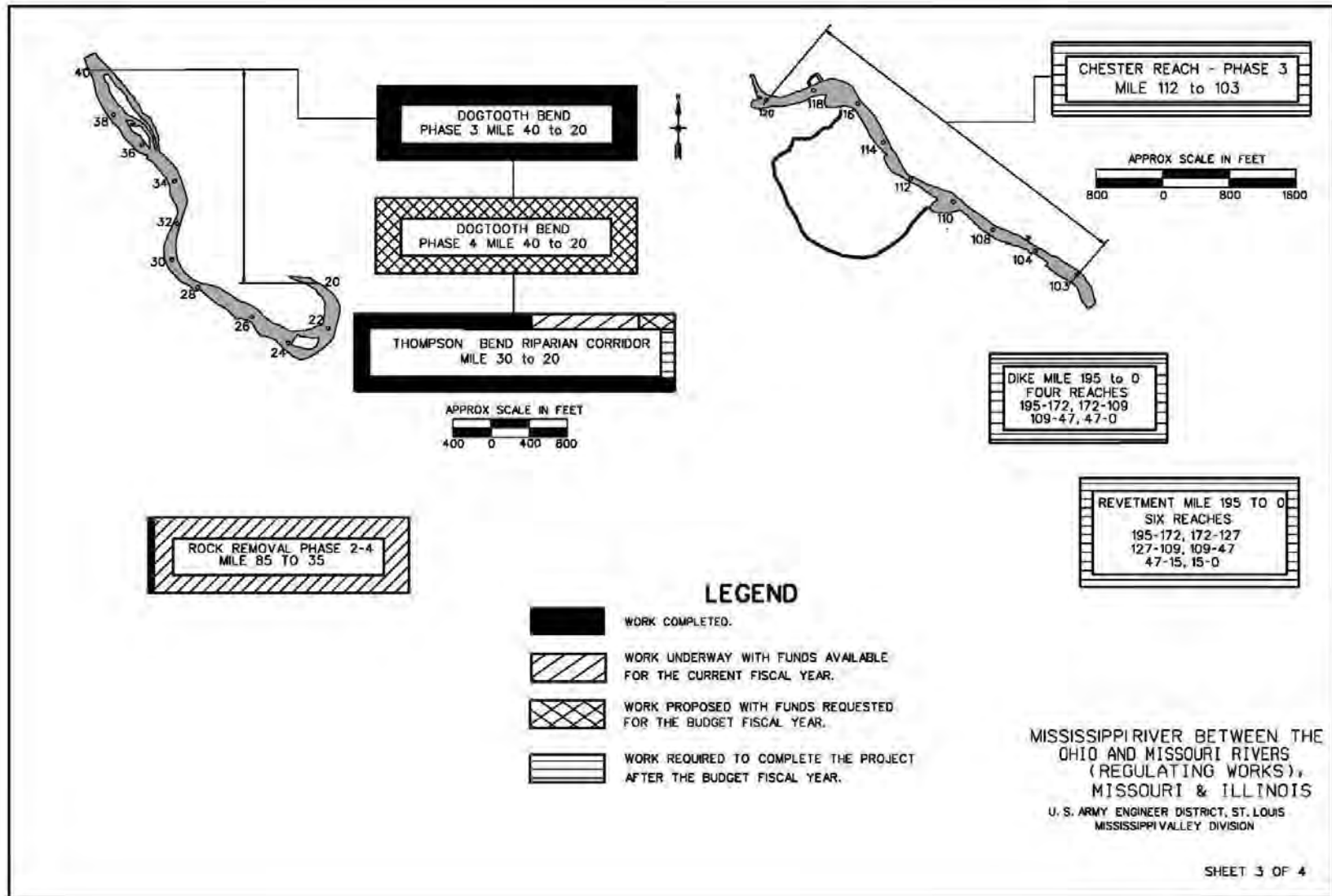
OTHER INFORMATION: Planning was initiated prior to 1910, and construction was initiated in 1910. This project requires no mitigation.

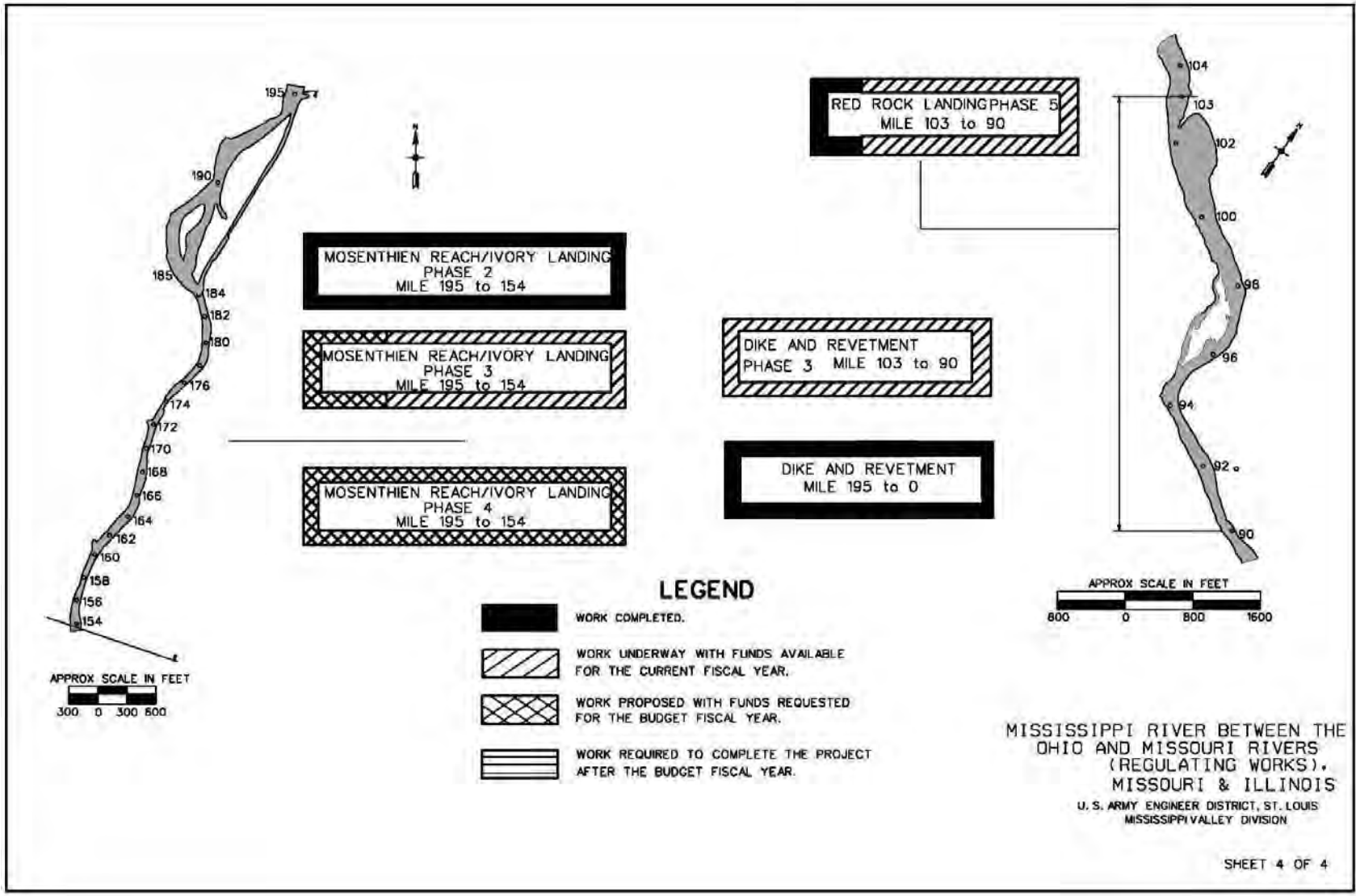




Mississippi Valley Division St. Louis District

Mississippi River Between the Ohio and Missouri Rivers (Regulating Works), Missouri and Illinois





ENVIRONMENT

INVESTIGATIONS

APPROPRIATION TITLE: Investigations, Fiscal Year 2012

Mississippi Valley Division

Study	Total Estimated Federal Cost \$	Allocation Prior To FY 2009 \$	Allocation FY 2009 \$	Allocation FY 2010 \$	Allocation FY 2011 \$	Allocation Requested for FY 2012 \$	Additional to Complete After FY 2012 \$
Illinois River Basin Restoration, IL Rock Island District	7,636,000	5,237,000	382,000	336,000	400,000	400,000	881,000

The Illinois River Basin Restoration Study encompasses the entire Illinois River watershed within the State of Illinois, a nationally significant ecosystem. The purpose of the Illinois River Basin Restoration Study includes the development of a comprehensive plan for the restoration of the Illinois River watershed and evaluation and construction of critical restoration projects within the basin. The feasibility cost sharing agreement with the State of Illinois was signed 31 July 2002.

The Comprehensive Plan was transmitted to Congress for information in June 2008. The Plan addresses habitat, water quality, navigation, and economic opportunities. Major components include fish and wildlife conservation and rehabilitation measures; land and water resources enhancement; sediment transport; sediment removal and disposal measures; long-term resource monitoring; and a computerized inventory and analysis. The Illinois River Basin Critical Restoration Projects authorized in WRDA 2000, Section 519, (as amended by WRDA 2007) are continuing and no additional authority is required.

Sixteen critical restoration projects have been identified to date. These projects were selected based on assessment of restoration needs with involvement of Federal and non-Federal partners. Critical restoration projects are currently being evaluated through feasibility, design, and two are proceeding with construction using Construction funds and American Recovery and Reinvestment Act funds.

Fiscal Year 2011 funds are being used to complete feasibility planning at Pekin South, Alton Pool and to advance project feasibility efforts at Blackberry Creek, Starved Rock Pool, and Senachwine Creek.

Funds requested for Fiscal Year 2012 will be used to complete critical restoration project feasibility efforts at Starved Rock Pool and Blackberry Creek, and to advance project feasibility efforts at Senachwine Creek, Kankakee River, Ten Mile Creek, and Yellow River at an efficient rate in concert with the non-Federal sponsor.

The estimated cost of the feasibility phase is \$11,040,000. In accordance with Section 519, WRDA 2000, this study is to be shared on a 65-35 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	\$11,500,000
Reconnaissance Phase (Federal)	460,000
Feasibility Phase (Federal)	7,176,000
Feasibility Phase (Non-Federal)	3,864,000

The reconnaissance phase was completed in July 2002. The completion date for feasibility studies for Critical Restoration Projects is being determined.

APPROPRIATION TITLE: Investigations, Fiscal Year 2012

Mississippi Valley Division

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2009 \$	Allocation FY 2009 \$	Allocation FY 2010 \$	Allocation FY 2011 \$	Tentative Allocation FY 2012 \$	Additional to Complete After FY 2012 \$
Louisiana Coastal Area Comprehensive Plan	TBD	0	0	0	0	\$100,000	TBD
New Orleans District							

LOCATION: Over 1 million acres of Louisiana’s coastal wetlands have been lost since the 1930’s; another one-third of a million acres could be lost over the next 50 years unless large-scale corrective actions are taken. Disruption of natural processes by the development of the watershed of the Mississippi River and in the Louisiana coastal area is the primary cause of the coastal land loss. Additional impacts result from natural subsidence and erosion of the lands where the Mississippi delta meets the Gulf of Mexico. Managing water and sediment for restoration creates/sustains nesting, feeding and resting habitats for threatened/endangered species (eagle, sturgeon, brown pelican, piping plover) and numerous migratory avian and waterfowl species. Barrier Island restoration favorably impacts nesting and resting cover for brown pelican and piping plover.

JUSTIFICATION: WRDA 2007, Title VII, Louisiana Coastal Area, Section 7002 authorized development of a Comprehensive Plan, in coordination with the Governor, for protecting, preserving, and restoring the coastal Louisiana ecosystem. The Comprehensive Plan will establish a framework for a long-term, multi-faceted program directed at protecting, preserving, and restoring coastal Louisiana and will identify the role of other Federal and State agencies and programs in carrying out this plan. Development of the Comprehensive Plan will, as directed in WRDA 2007, serve to integrate the findings of the Louisiana Coastal Protection and Restoration technical report as well as the ongoing State of Louisiana’s Master Plan revision. The Comprehensive Plan, building upon earlier studies and reports and drawing on lessons learned and adaptive management from LCA and Greater New Orleans Hurricane and Storm Damage Risk Reduction System activities, will focus on prioritizing projects from the landscape of efforts to meet clear objectives and goals. The Comprehensive Plan will ensure consistency and no duplication across different programs.

The requested funds will be used to develop and negotiate a Project Management Plan and cost share agreement for developing the Comprehensive Plan.

APPROPRIATION TITLE: Investigations, Fiscal Year 2012

Mississippi Valley Division

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2009 \$	Allocation FY 2009 \$	Allocation FY 2010 \$	Allocation FY 2011 \$	Tentative Allocation FY 2012 \$	Additional to Complete After FY 2012 \$
Louisiana Coastal Area (LCA) – Ecosystem Restoration, LA	92,500,000	43,064,000 ^{1/}	8,604,000	10,730,000 ^{2/}	1,000,000	4,520,000	24,582,000
LCA PED Costs	47,645,000	0	0	0	9,095,000	5,400,000	33,150,000
LCA – Science and Technology (S&T) Program, LA	65,000,000	2,475,000	0	6,500,000	6,500,000	6,325,000	43,200,000
LCA Program New Orleans District	205,145,000	45,539,000	8,604,000	17,230,000	16,595,000	16,245,000	100,932,000

^{1/} Includes \$11 million provided in Department of Defense, Emergency Supplemental Appropriations to Address Hurricanes in the Gulf of Mexico, and Pandemic Influenza Act, 2006, PL109-148, December 2005. \$1M was executed by S&T Program for Hurricane Assessment.

^{2/} Includes \$2,500,000 FY07 S&T allocation; per conference report, subsequently reprogrammed to support investigations.

LOCATION: Over 1 million acres of Louisiana’s coastal wetlands have been lost since the 1930’s; another one-third of a million acres could be lost over the next 50 years unless large-scale corrective actions are taken. Disruption of natural processes by the development of the watershed of the Mississippi River and in the Louisiana coastal area (LCA) is the primary cause of the coastal land loss. Additional impacts result from natural subsidence and erosion of the lands where the Mississippi delta meets the Gulf of Mexico. More specifically, the coastal land loss results from human intervention and natural processes, including: (1) efforts to maintain a Federal navigation channel from the Gulf of Mexico to New Orleans and farther up the Mississippi River; (2) the implementation of flood and storm damage reduction projects by or for communities in the Louisiana coastal plain; (3) oil and gas development, including thousands of miles of canals built by private interests for exploration and production; (4) natural subsidence and erosion of the lands where the Mississippi Delta meets the Gulf of Mexico; and (5) winter cold fronts, tropical storms, and hurricanes. Managing water and sediment for restoration creates/sustains nesting, feeding and resting habitats for threatened/endangered species (eagle, sturgeon, brown pelican, piping plover and numerous migratory avian and waterfowl species). Barrier Island restoration can reduce the rate of loss of wetlands and provide nesting and resting cover for brown pelican and piping plover.

JUSTIFICATION: The LCA Ecosystem Restoration Study Report was completed in November 2004. A feasibility cost sharing agreement was executed between the Federal Government and the State of Louisiana, Department of Natural Resources, the non-Federal sponsor, in February 2000 and amended in March 2002 and October 2004. A Chief of Engineers Report for the Near Term Plan was signed on 31 January 2005.

Title VII, WRDA 2007 authorized LCA. This budget continues the restoration planning efforts that are underway in the LCA - Ecosystem Restoration (LCA-ER) and LCA-S&T. A 10-year plan consisting of studies, projects and science support was developed through a public involvement process, and working closely with other Federal agencies and the State of Louisiana. All construction activities under the plan will be subject to approval by the Secretary of the Army.

Louisiana Coastal Area – Ecosystem Restoration Area, LA (Continued)

LCA-ER will construct significant restoration features, undertake demonstration projects, study potentially promising large-scale, long-term concepts, take other needed actions to restore the ecosystem. LCA-ER will be assisted both in the near-term and in the long-term by the independent LCA – S&T. The overall goal of LCA-S&T is to inform and guide the broader Federal effort to restore the Louisiana coastal ecosystem. It will be independent of, yet responsible to, the State and Federal managers of this restoration effort who are ultimately accountable for ensuring that the restoration effort is meeting the most critical ecological needs in the most cost-effective way. LCA-S&T will provide the necessary science support to LCA-ER to improve implementation and benefits delivery. It will also evaluate the validity of scientific hypotheses and assumptions regarding the effectiveness of current approaches to the restoration of this ecosystem, thereby reducing uncertainty over time. LCA-S&T is an integral component of the Corps effort to help protect and rebuild this ecosystem.

DESCRIPTION: In June 2006, two feasibility cost-share agreements were signed: (1) Beneficial Use of Dredged Material Program feasibility study, and (2) Barataria Basin Barrier Shoreline feasibility study. In November 2008, a feasibility cost-share agreement was signed that provides for feasibility level analysis for six LCA projects as required by WRDA 2007: (1) Amite River Diversion Canal Modification, (2) Convey Atchafalaya River Water to Northern Terrebonne Marshes, (3) Multipurpose Operation of Houma Navigation Canal Lock, (4) Small Diversion at Convent/Blind River, (5) Terrebonne Basin Barrier Shoreline Restoration, and (6) Medium Diversion at White Ditch Project. Planned studies will consider if features could contribute to hurricane and storm damage reduction and flood protection in the New Orleans Metropolitan area.

* Amite River Diversion Canal Modification (ARDC) restoration project area includes portions of the Maurepas Swamp adjacent to the Amite River Diversion Canal which connects and diverts flows from the Amite River to the lower Blind River near Lake Maurepas. The ARDC recommended plan (Alternative 33) will restore the most degraded portion of the Maurepas Swamp within the study area by restoring the natural hydrology, which was modified by the construction of the Amite River Diversion Canal and from the resulting impoundment of water, lack of freshwater, sediment and nutrients and surge-related saltwater intrusion. The recommended plan includes the creation of three gaps and delivery channels through the north bank of the Amite River Diversion Canal. The recommended plan is an implementable increment of the national ecosystem restoration (NER) plan, meets the LCA Program and project objectives, and is within the cost and scope of the authorization contained in Section 7006(e)(3) of WRDA 2007. The NER plan would create gaps on both the north and south bank of the ARDC along with delivery channel, gaps in the railroad grade and vegetative plantings benefiting 3,881 acres of swamp. The NER plan also includes all the areas addressed by the recommended plan and an additional area that is expected to need restoration in the next 20 years. The NER plan would provide 1,602 average annual habitat units (AAHUs) with a total estimated cost for construction of \$15,200,000, which exceeds the current authorization. The recommended plan will improve habitat function by 679 AA HUs over the 50-year period of analysis and benefit approximately 1,602 acres of existing freshwater swamp. The estimated first cost of the recommended plan is \$8,136,000. The Federal share of the estimated first cost of this project is estimated at \$5,288,000 and the non-Federal share is estimated at \$2,848,000. The operation, maintenance, repair, replacement, and rehabilitation (OMRR&R) costs for the project are estimated at \$10,000 per year and are 100-percent non-Federal responsibility. Based on a 4.375-percent discount rate and a 50-year period of analysis, the total equivalent average annual costs of the project are estimated at \$489,000, including OMRR&R. Post-construction monitoring and adaptive management of this ecosystem restoration project is projected to be conducted for no more than 10 years at an estimated cost of \$2,971,000. PED is scheduled to complete in FY12. The first increment of PED will result in plans and specifications to create four cuts in existing embankments, armor cut faces, and dredging to create distribution channels. The Chief's Report was completed December 30, 2010.

* Convey Atchafalaya River Water to Northern Terrebonne Marshes (ARTM) / Multipurpose Operation of the Houma Navigation Canal Lock (MOHNL) restoration project is located in coastal Louisiana south of Houma, between the Atchafalaya River and Bayou Lafourche. These two projects are hydrologically linked and subsequently have been analyzed and are presented as a combined feature. The ARTM/MOHNL recommended plan (Alternative 2), which is also the national ecosystem restoration plan, will reduce the current trend of marsh degradation in the project area resulting from subsidence, sea level rise, erosion, saltwater

Louisiana Coastal Area – Ecosystem Restoration Area, LA (Continued)

intrusion and lack of sediment and nutrient deposition. The project features consist of elimination of Gulf Intracoastal Waterway (GIWW) flow constrictions and construction of flow management features in the interior portions of the study area. The project consists of construction of 56 structures and other water management features. The project also includes the multipurpose operation of the proposed Houma Navigation Canal (HNC) Lock, if and when constructed. The lock complex would be closed and operated more frequently in order to maximize distribution of freshwater into wetlands downstream of the lock and minimizing saltwater intrusion upstream of the lock. The project would improve habitat function by approximately 3,220 AAHUs. The project would improve habitat for fish and wildlife species including migratory birds, estuarine fish and shell fish. Benefits include the reduction of projected wetland loss by approximately 9,655 acres of existing wetlands over the 50-year period of analysis. The estimated total first cost of the ARTM recommended plan is \$283,534,000. The Federal share of the estimated first cost of the ARTM project is \$ 184,298,000 and the non-Federal share is estimated at \$99,236,000. Post-construction monitoring and adaptive management of the ARTM ecosystem restoration project is projected to be conducted for no more than 10 years at an estimated cost of \$21,204,000. The OMRR&R of the ARTM project is estimated at \$73,000 per year and is a 100 percent non-Federal responsibility. Based on a 4.3 75-percent discount rate and a 50-year period of analysis, the total equivalent average annual costs of the ARTM project are estimated at \$15,907,000, including OMRR&R. PED will continue in FY12. The first increment of PED will result in plans and specifications to construct structural elements below Lake Merchant, a rock filled sheet pile weir with boat openings, and the construction of a soil plug to retain fresher water in Bayou du Large and Lake Merchant and prevent saltwater intrusion.

The estimated first cost of the MOHNL project which is the incremental cost of operations of the proposed constructed lock, for ecosystem restoration is \$1,496,000. The Federal share of the estimated first cost of the MOHNL project is \$972,000 and the non-Federal share is estimated at \$524,000. Post-construction monitoring and adaptive management of this ecosystem restoration project is projected to be conducted for no more than 10 years at an estimated cost of \$98,000. There is no additional OMRR&R cost forecast for the modification of the lock project. Based on a 4.375-percent discount rate and a 50-year period of analysis, the total equivalent average annual costs of the project are estimated at \$83,000, including OMRR&R. The Chief's Report was completed December 30, 2010.

* Small Diversion at Convent / Blind River is located approximately equidistant between Baton Rouge and New Orleans, Louisiana within the Maurepas Swamp, one of the largest remaining cypress swamps in coastal Louisiana. The recommended plan (Alternative 2), which is also the national ecosystem restoration plan, The project will reintroduce the natural periodic, nearly annual flooding by the Mississippi River to the Maurepas Swamp and Blind River that was cut off by construction of the Mississippi River and Tributaries (MR&T) flood control system. The project consists of a 3,000 cubic feet per second (cfs) capacity gated box culvert diversion on the Mississippi River with a delivery channel to be constructed in the vicinity of Romeville, Louisiana. The project has six major components: a diversion structure; a transmission canal; control structures; approximately 30 berm gaps; cross culverts at four locations along U.S. highway 61; and instrumentation to monitor and control the diversion flow rate and the water surface elevations in the diversion, transmission, and distribution system in the swamp. The project will restore freshwater, nutrients, and sediment input from the Mississippi River and improve habitat function by 6,421 AAHUs over a total of 21,369 acres of bald cypress-tupelo swamp. The project would improve habitat for many fish and wildlife species including migratory birds, bald eagles, alligators, gulf sturgeon, and the manatee. The estimated total first cost of the project is \$116,791,000. The Federal share of the estimated first cost of this project is \$75,914,000 and the non-Federal share is estimated at \$40,877,000. Post-construction monitoring and adaptive management of this project is projected to be conducted for no more than 10 years at a cost of \$6,620,000. The OMRR&R costs of the project are estimated at \$2,754,000 per year and are a 100 percent non-Federal responsibility. Based on a 4.375-percent discount rate and a 50-year period of analysis, the total equivalent average annual costs of the project are estimated at \$8,859,000, including OMRR&R. PED is scheduled to complete in FY12. The first increment during PED will result in plans and specifications to construct the diversion culvert facility to divert freshwater from the Mississippi River, transfer the water under the east levee through a box culvert to discharge into an existing transmission canal. The Chief's Report was completed December 30, 2010.

Louisiana Coastal Area – Ecosystem Restoration Area, LA (Continued)

* Terrebonne Basin Barrier Shoreline Restoration project is located in Terrebonne Parish 30 miles south of the city of Houma, Louisiana and includes the Isles Dernieres and the Timbalier Islands. These barrier islands have undergone significant reductions in size due to a number of natural processes and human actions including lack of sediment, storm-induced erosion and breaching, subsidence, sea level rise and hydrologic modifications such as navigation and oil and gas canals. The project will reintroduce sediment to the coastal sediment transport system through the restoration of Racoon Island with 25 years of advanced fill and construction of a terminal groin. The project also includes restoration of Whiskey and Trinity Islands with five years of advanced fill and restoration of Timbalier Island with 25 years of advanced fill. The project consists of restoration of four islands (Whiskey, Racoon, Trinity, and Timbalier) improving habitat function by 2,833 AAHUs by adding 3,283 acres to the islands for a total size of 5,840 acres. The restored acreage would include 472 acres of dune, 4,320 acres of supratidal habitat, and 1.048 acres of intertidal habitat and ensure the geomorphic and hydrologic form and ecological function of the majority of the estuary over the period of analysis. The estimated total first cost of the project is \$646,931,000. The Federal share of the estimated first cost of this project is \$420,505,000 and the non-Federal share is estimated at \$226,426,000. Post-construction monitoring and adaptive management of this ecosystem restoration project is projected to be conducted for no more than ten years at a cost estimated to be \$5,280,000. The OMRR&R costs of the project, including periodic nourishment, are estimated at \$9,960,000 per year and are a 100 percent non-Federal responsibility. Based on a 4.375-percent discount rate and a 50-year period of analysis, the total equivalent average annual costs of the project are estimated at \$26,400,000, including OMRR&R. PED is scheduled to complete in FY12. The first increment of PED will result in plans and specifications to validate performance of the tentatively selected plan, wave and current modeling, and additional geophysical, geotechnical, and cultural resource analyses of borrow areas. The Chief's Report was completed December 30, 2010.

Additional authority is needed to raise the total project cost to allow implementation of the entire project. The Whiskey Island component can be implemented under the existing authority provided in Section 7006(e)(3) of WRDA 2007. The Whiskey Island component includes renourishment every 20 years to maintain the constructed features. Restoration of the one island will increase habitat function by 678 AAHUs by restoring a total of 1,272 acres on the island, including 65 acres of dune, 830 acres of supratidal habitat, and 377 acres of intertidal habitat. The Whiskey Island component is an implementable increment of the NER plan. The estimated total first cost of the Whiskey Island component is \$113,434,000. The Federal share of the estimated first cost of this project is \$73,732,000 and the non-Federal share is \$39,702,000. Post-construction monitoring and adaptive management of this ecosystem restoration project is projected to be conducted for no more than ten years at an estimated cost of \$5,820,000. The OMRR&R cost of the project, including periodic nourishment, are estimated at \$6,900,000 per year and is a 100 percent non-Federal responsibility. Based on a 4.375-percent discount rate and a 50-year period of analysis, the total equivalent average annual costs of the project are estimated at \$9,508,000, including OMRR&R.

* Medium Diversion at White Ditch project (MDWD) project is located on the east bank of the Mississippi River south of New Orleans in Plaquemines Parish near the town of Phoenix, Louisiana. The project will restore the supply and distribution of freshwater and sediment disrupted by the construction of the Mississippi River and Tributaries flood control. The project includes a 35,000 cubic feet per second (cfs) capacity gated box culvert diversion on the Mississippi River with a delivery channel to be constructed in the vicinity of Phoenix, Louisiana. The structure will consist of ten 15-foot by 15-foot box culverts and an approximately 9,500 foot conveyance channel to move the diverted water into surrounding marshes. Dredged material from the conveyance channel will be used beneficially to create approximately 416 acres of marsh and ridge habitat. The project will improve habitat function by 13,353 AAHUs by creating and nourishing approximately 20,315 acres of fresh, intermediate, brackish, and saline wetlands. The estimated total first cost of the project is \$365,201,000, which exceeds the authorized project cost. The Federal share of the estimated first cost of this project is \$237,381,000 and the non-Federal share is estimated at \$127,820,000. Post-construct ion monitoring and adaptive management of this ecosystem restoration project is projected to be conducted for no more than ten years at an estimated cost of \$11,143,000. The OMRR&R costs of the project are estimated at \$1,468,000 per year and are a 100 percent non-Federal responsibility. Based on a 4.375-percent discount rate and a 50-year period of analysis, the total equivalent average annual costs of the project are estimated at \$21,237,000, including OMRR&R. In FY 12, PED will address induced shoaling, hydrodynamic and sediment models, adaptive management and preconstruction monitoring. The Chief's Report was completed December 30, 2010.

Louisiana Coastal Area – Ecosystem Restoration Area, LA (Continued)

* The Beneficial Use of Dredged Material Program will provide the framework, process and procedures for selecting, funding and implementing projects over a 10-year period that could create an estimated 21,000 acres of coastal wetlands over the 10-year life of the program. Dredged material will be acquired from maintenance activities of Federal waterways. A Program report approved by the Administration was transmitted to Congress 13 August 2010. Due to unforeseen delays in FY 2011, the selection, evaluation, and design of projects to initiate construction in FY 2012 will be completed.

* The Barataria Basin Barrier Shoreline Restoration (BBBS) feature consists of headland and barrier island restoration. Restoring and protecting these features helps preserve the western boundary of the Barataria Basin, preserve natural hydrologic function, provide habitat crucial to migratory birds, endangered species, commercial and recreational fisheries as well as contributing to the lines of defense for risk reduction to Barataria Basin interior wetlands and transportation infrastructure. The study is being undertaken pursuant to the execution of a cost sharing agreement dated June 2006. In FY 12, the feasibility study will be completed and PED will be initiated.

* The Land Bridge between Caillou Lake and Gulf of Mexico feature would maintain the natural hydrologic barrier between the Gulf and Caillou Lake and associated Terrebonne Basin wetlands as well as allow increased freshwater influence from the Atchafalaya River waters flowing eastward into Four League Bay. Subsidence, storm damage, increased tidal influence, and lack of sediment inputs have all caused significant adverse impacts resulting in wetland loss, habitat conversion, and ecosystem degradation. These habitat losses have had a direct adverse impact on wildlife and fisheries resources and State-designated Public Oyster Seed Reservations. The bald eagle and essential fish habitat would also benefit. The tentatively selected plan would maintain the separation between Caillou Lake and the Gulf of Mexico and Bay Voisin and the Gulf of Mexico, maintain the estuarine gradient, reduce the marine influences on Caillou Lake and Bay Voisin, and reverse the trend of deterioration in the associated wetlands and wildlife habitat. The tentatively selected plan will create and nourish approximately 1,588 acres of saline marsh and install 29,000 linear feet (8,839 m) of shoreline protection to increase the stability of the land bridge separating Caillou Lake from the Gulf of Mexico and of the stability of the critical land bridge separating Bay Voisin and the Gulf of Mexico. In FY 12, the feasibility study will be completed and PED will be initiated. The first increment of PED will result in plans and specifications for the construction of the beach and dune component of the tentatively selected plan.

* The Gulf Shoreline at Point Au Fer Island (Point Au Fer) feature provides for stabilizing the Gulf shoreline of this island, thereby precluding the formation of direct connections between the Gulf and Four League Bay, a situation that would lead to increasing salinities of island and inland coastal wetlands influenced by Atchafalaya River water. Protecting this island also protects habitat crucial to migratory birds, and provides storm surge protection to the southwestern corner of the Terrebonne Bay wetland system. Subsidence, storm damage and increased tidal influence and lack of sediment inputs have all resulted in shoreline retreat/loss, dune habitat, and protected back-bay barrier marshes. In FY 12, the feasibility study will be completed and PED will be initiated. The first increment of PED will result in plans and specifications for dredging and pumping of material to be used to replenish dunes and create marsh.

* Modification to the Caernarvon feature will increase wetland creation and protection outputs for this existing structure through changes in the structure's operation. Currently, the structure operates on average at about one-half capacity to maintain salinity gradients. The wetlands of St. Bernard and Plaquemines Parishes suffered extensive losses from Hurricane Katrina and will directly benefit from the added sediments and freshwater introduced from the Mississippi River by increasing the freshwater introduction volume. The bald eagle and essential fish habitat are also expected to benefit. Modification to the Caernarvon feature will increase wetland creation and protection outputs for this existing structure through changes in the structure's operation. Currently, the structure operates on average at about one-half capacity to maintain salinity gradients. The wetlands of St. Bernard and Plaquemines Parishes suffered extensive losses from Hurricane Katrina and will directly benefit from the added sediments and freshwater introduced from the Mississippi River by increasing the freshwater introduction volume. The bald eagle and essential fish habitat are also expected to benefit. A tentatively selected plan will be selected from an existing final array of alternatives ranging from operating under the existing operational plan, to operating at maximum capacity throughout the year. Wetland acreage benefits may range from 2,000 to

Louisiana Coastal Area – Ecosystem Restoration Area, LA (Continued)

14,000 acres. Once selected, the tentatively selected plan may call for increased use of the structure which can result in the need to purchase flowage easements in the influence area as a major construction cost. In FY 12, the feasibility study will be completed and PED will be initiated. The first increment of PED will result in plans and specifications for the purchase of flowage easements where necessary in the Breton Sound.

* The Modification to Davis Pond feature will increase wetland creation and protection outputs for this existing structure through changes in the structure's operation. The structure, operating on average at about one-half capacity, maintains salinity gradients in the central Barataria Basin. In addition to wetland creation, the freshwater wetlands of the upper Barataria Basin will be directly benefitted by the added sediments and freshwater introduced from the Mississippi River. The bald eagle and essential fish habitat are also expected to benefit. The Modification to Davis Pond feature will increase wetland creation and protection outputs for this existing structure through changes in the structure's operation. The structure, operating on average at about one-half capacity, maintains salinity gradients in the central Barataria Basin. In addition to wetland creation, the freshwater wetlands of the upper Barataria Basin will be directly benefitted by the added sediments and freshwater introduced from the Mississippi River. A tentatively selected plan will be selected from an existing final array of alternatives ranging from operating under the existing operational plan, to operating at maximum capacity throughout the year. Wetland acreage benefits may range from 2,000 to 14,000 acres. The tentatively selected plan may call for increased use of the structure which can result in the need to purchase of flowage easements in the influence area as a major construction cost. In FY 12, the feasibility study will be completed and PED will be initiated. The first increment of PED will result in plans and specifications for the purchase of flowage easements where necessary in the Barataria Basin.

* The Small Bayou Lafourche Reintroduction feature consists of increasing channel flows by introducing 1,000 cfs of Mississippi River water into the Bayou at Donaldsonville to mimic the actions of a river crevasse. The introduction method will be determined as a study output. Dredging and bank stabilization would be required to control water levels and maintain bank stability and a sediment trap. Weirs are also features. Projections are that 2,500 acres of coastal marsh would be protected, thousands of acres would benefit as would the bald eagle and essential fish habitat. The study is being held in abeyance pending coordination with the State of Louisiana.

* The Medium Diversion at Myrtle Grove (Myrtle Grove) with dedicated dredging project consists of diverting 2,500 to 15,000 cfs from the Mississippi River into the Barataria Basin through a box culvert system and using 2 million cubic yards of Mississippi River material annually for several years to create marsh wetlands. As authorized, this feature is expected to deliver benefits in the range of 11,500 acres and would benefit essential fish habitat, threatened/endangered species and colonial nesting birds. The feasibility study will be continued in FY12.

* The Small Diversion at Hope Canal is expected to enhance approximately 36,000 acres of Maurepas Swamp wetlands primarily by introducing approximately 5,000 cfs from the Mississippi River. Project features include two box culverts; a receiving pond reinforced with riprap; and a 50-foot wide and a 10-foot deep outflow channel roughly 27,500 feet long that will run from the river to U.S. Interstate 10. The study is being held in abeyance pending coordination with the State of Louisiana.

* The Mississippi River – Gulf Outlet environmental restoration study is currently being held in abeyance pending the determination or outcomes of other programs in the area. Project features include the construction of shoreline protection measures such as rock breakwaters along the north bank of the MRGO and along important segments of the southern shoreline of Lake Borgne. Additional ecosystem restoration features including marsh creation, freshwater introduction, barrier island restoration, and channel modification would be investigated to develop a suite of measures to stabilize and maintain important estuarine components.

Louisiana Coastal Area – Ecosystem Restoration Area, LA (Continued)

* The Mississippi River Hydro/Delta Management feature is a combination of the Mississippi River Hydrodynamic Model and the Mississippi River Delta Management Study features. This combined feature would provide a model to assess the effects on navigation and sediment dynamics along the Mississippi River main stem associated with combinations of Mississippi River diversions. Model outputs would also be used to formulate and assess management options for the Delta. In FY 12, the feasibility study will be continued.

* Demonstration Projects – These projects are designed to resolve critical areas of scientific or technological uncertainty related to the implementation of the restoration plan and ultimately the comprehensive plan. FY 11 funds will be used to prepare and execute a Feasibility Cost Sharing Agreement/Project Management Plan for approved projects and initiate/execute the study. The study scheduled for completion in FY 11 will result in preparation of a decision document for demonstration projects.

* Investigations of Existing Structures – A review will be conducted of each federally-authorized water resources project in the coastal Louisiana ecosystem under construction or completed as of 8 November 2007. The review will result in identifying projects that need to be modified for restoration purposes and lead to the production of a Project Management Plan and initiation of a study to determine the advisability of potential modifications of existing structures. At this time no projects have been identified for review. Potential projects identified in the future will be budgeted.

The estimated cost of preparing the Near-Term Program follow-on feasibility studies is \$185,000,000 which is cost shared on a 50-50 percent basis by Federal and non-Federal interests. PED will be cost shared 65 percent Federal and 35 percent Federal as authorized in Title VII, WRDA 2007. The Comprehensive Plan will be cost shared on a 50-50 percent basis by Federal and non-Federal interests, and the total estimated cost is to be determined.

Total Estimated Study Cost	\$185,000,000	Total Estimated PED Cost (65/35)	\$73,300,000
Reconnaissance Phase (Federal)	N/A	Federal	47,645,000
Feasibility Phase (Federal)	92,500,000	Non-Federal	25,655,000
Feasibility Phase (Non-Federal)	92,500,000		

* LCA – S&T:

The estimated cost of the LCA S&T Program included in the Chief's report dated January 2005 is \$100,000,000 over a 10-year period cost shared 65 percent Federal and 35 percent non-Federal as authorized in WRDA 2007. Funds were appropriated for this effort during FY10; however, the non-Federal sponsor, the State of Louisiana, has not yet signed a cost sharing agreement, in large part due to issues associated with work-in-kind credit.

Total Estimated Program Cost	\$100,000,000
Federal	65,000,000
Non-Federal	35,000,000

LOCATION: Over 1 million acres of Louisiana's coastal wetlands have been lost since the 1930's; another one-third of a million acres could be lost over the next 50 years unless large-scale corrective actions are taken. The area supports a complex, coastal wetlands and barrier island ecosystem, which is an environmental resource of national significance. The coastal land loss results from human intervention and natural processes, including: (1) efforts to maintain a Federal navigation channel from the Gulf of Mexico to New Orleans and farther up the Mississippi River; (2) the implementation of flood and storm damage reduction projects by or for communities in the Louisiana coastal plain; (3) oil and gas development, including thousands of miles of canals built by private interests for

Louisiana Coastal Area – Ecosystem Restoration Area, LA (Continued)

exploration and production; (4) natural subsidence and erosion of the lands where the Mississippi delta meets the Gulf of Mexico; and (5) storms associated with winter colds fronts, tropical storms, and hurricanes.

JUSTIFICATION: The overall goal of the LCA S&T Program is to inform and guide the LCA-ER Program both in the near-term and in the long-term. It will be independent of, yet responsive to, the State and Federal managers of the LCA-ER Program, who are ultimately accountable for ensuring that the restoration effort is highly cost-effective and meets the most critical ecological needs. The LCA S&T Program will assist by providing the necessary science support aimed at improving implementation. It will also evaluate the validity of scientific hypotheses and assumptions regarding the effectiveness of current approaches to the restoration of this ecosystem, thereby reducing uncertainty over time. This program is an integral component of the Corps effort to help protect and rebuild this ecosystem.

DESCRIPTION: The responsibilities of the LCA S&T Program will include leading the research effort to advance our understanding of the dynamics of the ecosystem and its needs; identifying the key scientific uncertainties and challenges facing the effort to protect and restore the ecosystem; monitoring the ecological effects of the overall restoration effort; and reporting on its failures and successes.

The LCA-ER program will be responsible for monitoring the operational performance of each restoration project. The LCA S&T Program will provide assistance in designing these project-specific monitoring plans and review the data gathered by the LCA-ER Program to evaluate the impacts of the individual projects and the impacts of the restoration program as a whole on the coastal ecosystem. The LCA S&T Program will be responsible for any additional monitoring needed on a system-wide basis to support its evaluations of the overall effectiveness of the LCA-ER Program.

The LCA S&T Program will support the development by the LCA-ER Program of system-wide frameworks for use in the ongoing process of formulating restoration projects and for use in modeling and evaluating their synergistic impacts and cost-effectiveness in reaching overall restoration goals. This support will include providing advice on the direction and the development of these system-wide frameworks. The LCA S&T Program will also review the restoration projects, demonstration projects, and large-scale studies proposed by the LCA-ER Program for the purpose of ensuring that significant scientific findings and recommendations, including recommendations for adaptive management, are made available for incorporation into its project plans on an ongoing basis.

The efforts of the LCA S&T Program will be closely coordinated with the LCA-ER Program to ensure support of both near-term and long-term restoration needs. For example, the LCA S&T Program will solicit information from State and Federal project managers in an effort to anticipate and address upcoming science needs and support ongoing and future ecosystem restoration studies and projects. The LCA S&T Program will also maintain and fund a technical support team to allow project managers in the LCA-ER Program ready access to short-term technical support, to encourage ongoing dialogue between project managers and research scientists, to facilitate the use of the most recent science in the restoration effort, and to suggest ways to improve existing models, tools, and processes.

An external Science Board composed of academics and federal research scientists who are familiar with other large ecosystem restoration efforts will review the activities of the LCA S&T Program and provide information on scientific and technical needs. In addition, the Board will offer professional analysis and review on the scientific validity of various critical science issues in coastal Louisiana.

The local sponsor for the LCA S&T Program is the State of Louisiana, Office of Coastal Protection and Restoration.

FISCAL YEAR 2012: Upon execution of a cost-sharing agreement, FY 11 and FY12 activities will focus on ongoing system-wide priorities which include the monitoring and modeling of the hydrodynamics and sediment transport capabilities of the lower Mississippi River, the development of defensible wetland and estuarine assessment techniques to evaluate to benefits and impacts of diversions and other restoration projects, the quantification of the role of wetlands and coastal features in storm surge mitigation and wave attenuation, and the development of both project-specific and programmatic adaptive management plans.

Louisiana Coastal Area – Ecosystem Restoration Area, LA (Continued)

Products will take the form of technical reports, technical notes, synthesis papers and scientific presentations. An emphasis will be placed on technical transfer directly to project managers and planning leads. Specific products scheduled to be completed during FY 12 include Phase 1 of the Mississippi River Regional hydrodynamic and sediment modeling effort, an analysis of the role of Louisiana barrier islands in storm surge and wave attenuation, the initiation of efforts to measure subsidence in wetlands, support of the Coastal Restoration Monitoring System and its utilization to develop a programmatic adaptive management framework and the delivery of operational sediment budgets for the Barataria and Terrebonne basins. Other efforts will include data management and distribution, technical transfer of information to project managers through publications, symposiums, web seminars and a technical support program. Normal operations of the LCA Science Board will be sustained.

APPROPRIATION TITLE: Investigations, Fiscal Year 2012

Mississippi Valley Division

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2009 \$	Allocation FY 2009 \$	Allocation FY 2010 \$	Allocation FY 2011 \$	Tentative Allocation FY 2012 \$	Additional to Complete After FY 2012 \$
MINNESOTA	4,820,000	33,000	0	296,000	350,000	350,000	3,791,000
Minnesota River Watershed Study, MN and SD (Minnesota River Basin, MN and SD) St. Paul District							

The Minnesota River in southwestern Minnesota originates at the Minnesota-South Dakota border, flows 335 miles through some of the richest agricultural land in Minnesota and joins the Mississippi River at Minneapolis and St. Paul, Minnesota. The river drains 16,770 square miles, of which 14,840 are in Minnesota, 1,610 in South Dakota, and the remainder in North Dakota and Iowa. The Minnesota River reconnaissance study recommended three Feasibility studies. One of the recommendations included an integrated watershed, water quality management, and ecosystem restoration analysis that would produce a watershed management plan to facilitate better watershed management and identify specific opportunities for the Corps of Engineers and other stakeholders. This study was initiated in September 2008 and the Minnesota Environmental Quality Board is acting as the local sponsor. An interagency technical team will be formed with expertise in hydrology, geomorphology, limnology, ecology, agriculture, and economics, planning and modeling. The non-Federal participants would be from the Minnesota Environmental Quality Board as the lead sponsor, Minnesota Pollution Control Agency (MPCA), the Minnesota Department of Natural Resources (DNR), the Minnesota Board of Water and Soil Resources (BWSR), the Metropolitan Council of the Twin Cities, Minnesota State University – Mankato, the University of Minnesota and the Nature Conservancy. Federal participants would include the Corps of Engineers, the Natural Resources Conservation Service (NRCS), the U.S. Fish and Wildlife Service (FWS), the U.S. Geological Survey (USGS), and the U.S. Environmental Protection Agency (EPA). The study will take advantage of advanced watershed modeling techniques to understand the relationship of hydrologic and water quality parameters and the relative impacts and benefits of alternative measures for flood damage reduction and ecosystem restoration and would integrate the efforts of a wide range of agencies currently working independently, leading to more cost-effective use of existing government programs. It is expected that the integrated watershed study will identify additional projects for study and implementation. The local sponsors will be collecting LiDAR in the Minnesota River Basin as an item of work in-kind.

Fiscal Year 2011 funds will be used for continuing the feasibility study. Funds requested for Fiscal Year 2012 will be used to continue the feasibility study. The preliminary estimated cost of the feasibility phase is \$9,640,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Feasibility Study Cost	\$9,640,000
Reconnaissance Phase (Federal)	NA ^{1/}
Feasibility Phase (Federal)	4,820,000
Feasibility Phase (Non-Federal)	4,820,000

A feasibility cost share agreement was executed 29 September 2008. The feasibility study completion schedule is being determined.

^{1/} Reconnaissance phase funded under overall study authority for Minnesota River Basin.

APPROPRIATION TITLE: Investigations, Fiscal Year 2012

Mississippi Valley Division

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2009 \$	Allocation FY 2009 \$	Allocation FY 2010 \$	Allocation FY 2011 \$	Tentative Allocation FY 2012 \$	Additional to Complete After FY 2012 \$
MINNESOTA							
Red River of the North Basin, NM, ND, SD and Manitoba, Canada St. Paul District Annual Allocations	\$10,590,000	3,503,000	178,000	450,000	433,000	433,000	\$5,315,000
ARRA Allocations			278,000				
Total Allocations	\$10,590,000	3,503,000	456,000	450,000	433,000	433,000	\$5,315,000

A watershed study for the entire Red River of the North Basin was initiated with execution of a Feasibility Cost Share Agreement in June 2008. Reconnaissance activities will continue for specific locations within the Basin as described in the reconnaissance report approved in October 2002. The Red River of the North, a northward flowing stream, originates at the convergence of the Ottertail, Minnesota, and Bois de Sioux Rivers, Minnesota and North Dakota and ends at Lake Winnipeg in Manitoba, Canada. Within the United States, the Red River drains portions of South Dakota, Minnesota, and North Dakota and forms the border between the latter two. The basin has lost much of the natural environment that existed in early settlement times, and flooding has repeatedly caused economic and human hardship. Major flood events totaling billions of dollars in damages have occurred in 1826, 1852, 1893, 1897, 1914, 1919, 1950, 1974, 1975, 1978, 1979, 1985, 1989, 1996, 1997, 2001, 2006, 2009 and 2010. Significant floods with substantial documented damages occurred on tributaries in other years. Drainage, river modifications, and land use changes (including those for enhancement of agriculture) adversely affected the natural ecosystems. The basin's water resources issues have been the focus of several watershed planning and management initiatives. Studies will address flood damage reduction and ecosystem restoration. Federal agencies, state agencies in Minnesota, North Dakota, and South Dakota, local units of government, non-profit environmental organizations, Canadian interests, business and agricultural representatives, and citizens participating in support of these initiatives see this study as critical to continued basin planning and implementation. The initial task in the basin-wide watershed study is development of a digital elevation model using LIDAR data, followed by the development of a decision support system and watershed management plan. The study will build models and develop tools to assist local governments in managing the watershed.

Fiscal Year 2011 funds will be used for continuing the feasibility study. Funds requested for Fiscal Year 2012 will be used to continue the basin-wide watershed study, as well as produce reconnaissance supplements identifying additional feasibility studies. The estimated cost of the feasibility phase is \$18,940,000, which is to be shared on a 50-50 percent basis by the Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	\$20,060,000	<u>1/</u>
Reconnaissance Phase (Federal)	1,120,000	
Feasibility Phase (Federal)	9,470,000	
Feasibility Phase (Non-Federal)	9,470,000	

The completion schedule for each feasibility study will be established during negotiations with sponsors to determine the scope of study. The completion dates for the Red River Basin Wide Feasibility study is to be determined.

1/ Excludes costs for Wild Rice River, MN; Roseau, MN; Fargo, ND-Moorhead, MN and Upstream; and Fargo, ND-Moorhead, MN Metro; feasibility studies.

CONSTRUCTION

APPROPRIATION TITLE: Construction, Ecosystem Restoration

PROJECT: Louisiana Coastal Area, Louisiana (LCA) Program (Continuing)

LOCATION: The project includes the Louisiana coastal area from Mississippi to Texas, that includes the following Louisiana parishes in the study area: Ascension, Assumption, Calcasieu, Cameron, Iberia, Jefferson, Lafourche, Livingston, Orleans, Plaquemines, St. Bernard, St. Charles, St. James, St. John the Baptist, St. Martin, St. Mary, St. Tammany, Tangipahoa, Terrebonne, and Vermilion.

DESCRIPTION: The program's primary purpose is to restore the Louisiana wetland coastal area through the beneficial use of dredged material; river diversion of sediment and water; head land and barrier island restoration; coastal protection efforts and a combination thereof. The Louisiana coastal plain contains one of the largest expanses of coastal wetlands in the contiguous United States (U.S.), and accounts for 90 percent of the total coastal marsh loss in the Nation. The coastal wetlands, built by the deltaic processes of the Mississippi River, contain an extraordinary diversity of coastal habitats that range from narrow natural levee and beach ridges to expanses of forested swamps and freshwater, intermediate, brackish, and saline marshes. Taken as a whole, the unique habitats, with their hydrological connections to each other, upland areas, the Gulf of Mexico, and migratory routes of birds, fish, and other species, combine to place the coastal wetlands of Louisiana among the Nation's most productive and important natural assets. These coastal wetlands have also been a center for culturally diverse social development.

AUTHORIZATION: WRDA 2007, Title VII (Public Law 110-114) and Report of the Chief of Engineers, LCA Ecosystem Restoration, Six Projects Authorized by Section 7006(e)(3) of WRDA 2007, dated 30 December 2010.

REMAINING BENEFIT - REMAINING COST RATIO: N/A (Action is environmental restoration; not subject to traditional benefit-cost analyses.)

TOTAL BENEFIT - COST RATIO: N/A (Action is environmental restoration; not subject to traditional benefit-cost analyses.)

INITIAL BENEFIT - COST RATIO: N/A (Action is environmental restoration; not subject to traditional benefit-cost analyses.)

BASIS OF BENEFITS: Benefits are based on the Report of the Chief of Engineers (dated 31 January 2005) on Louisiana Coastal Area, Ecosystem Restoration Feasibility Study.

Mississippi Valley Division

New Orleans District

Louisiana Coastal Area, Louisiana
(LCA) Program

SUMMARIZED FINANCIAL DATA – Total Project 1/

		ACCUM PCT of EST FED COST	STATUS (1 January 2011)	PCT Cmpl	PHYSICAL COMPETION SCHEDULE
Estimated Federal Cost	\$ 1,138,575,000				
Programmed	\$ 1,138,575,000				
Un-Programmed					
Estimated Non-Federal Cost	\$ 612,925,000				
Programmed: Cash	\$ 0		Beneficial Use Dredge Matl	0	
Other	\$ 612,925,000		Demonstration Projects	0	
			Amite River Diversion	0	
			Convey Atchafalaya River	0	
Total Estimated Project Programmed Cost	\$ 1,751,500,000		Houma Navigation Canal	0	
Total Estimated Project UN-Programmed Cost	0		Convent LA & Blind River	0	
Total Estimated Project Cost	\$ 1,751,500,000		Terrebonne Basin	0	
			Barataria Basin Shoreline Rest	0	
			Caillou Lake & Gulf	0	
			Point Au Fer island	0	
Allocations as of 30 September 2008	\$ 0		Mod to Caernarvon	0	
Allocations for FY 2009	0		Mod to Davis Pond	0	
Allocations for FY 2010	0		Bayou Lafourche	0	
President's Budget for FY 2011	19,000,000		Diversion at Myrtle Grove	0	
Budget for FY2012	\$ 10,620,000		Hope Canal	0	
Programmed Balance to Complete After FY 2012	\$ 1,108,955,000 2/		Miss R. Gulf Outlet – Env Rest	0	
Un-Programmed Balance to Complete After FY 2012	0				
			Total Project	0	
Federal Programmed Balance to Complete After FY 2012	\$ 1,108,955,000				

1/ Total Project Cost Estimates subject to change pending Executive Branch review of Chief's Report dated 30 Dec 2010.

2/ Balance to complete based on FY 11 allocation equal to the FY 11 President's Budget.

PHYSICAL DATA:

Pumping Stations & Siphon Facility	Adjustable Weirs
Sediment Traps	Land Bridge Creation
Dredging	Breakwaters
Dredged Material	Diversion Structure
Bank Stabilization	Conveyance Channel
Monitoring Stations	Groins

JUSTIFICATION:

Approximately 70 percent of all waterfowl that migrate through the U.S. use the Mississippi and Central flyways. With more than 5 million birds wintering in Louisiana, the Louisiana coastal wetlands are crucial habitat to these birds, as well as to neo-tropical migratory songbirds and other avian species that use them as crucial stopover habitat. Additionally, coastal Louisiana provides crucial nesting habitat for many species of water birds, such as the endangered brown pelican. These habitat values, which are protected and supported by the coastal wetlands of Louisiana, are significant on a National level.

Louisiana's coastal wetlands and barrier island systems enhance protection of an internationally significant commercial-industrial complex from the destructive forces of storm driven waves and tides. A complex of deep-draft ports includes the Port of South Louisiana, which handles more tonnage than any other port in the Nation, and the most active segment of the Nation's Gulf Intracoastal Waterway (GIWW) (Waterborne Commerce Statistics Center (WCSC) 2002). In 2000, Louisiana led the Nation with production of 592 million barrels of oil and condensate (including the outer continental shelf (OCS)), valued at \$17 billion, and was second in the Nation in natural gas production with \$1.3 billion (excluding OCS and casing head gas) (Louisiana Department of Natural Resources [LDNR] 2003a). In addition, nearly 34 percent of the Nation's natural gas supply and over 29 percent of the Nation's crude oil supply moves through the state and is connected to nearly 50 percent of U.S. refining capacity (LDNR 2003a).

Additionally, coastal Louisiana is home to over 2 million people, representing 46 percent of the state's population. When investments in facilities, supporting service activities, and the urban infrastructure are totaled, the capital investment in the Louisiana coastal area adds up to approximately \$100 billion. Excluding Alaska, Louisiana produced the Nation's highest commercial marine fish landings (about \$284 million) excluding mollusk landings such as clams, oysters, and scallops (National Marine Fisheries Service (NMFS) 2009). Data from the Louisiana Department of Wildlife and Fisheries show expenditures on recreational fishing (trip and equipment) in Louisiana to be nearly \$1.7 billion, and hunting expenditures were valued at \$975 million (2006).

Louisiana's coastal wetlands were built by deltaic processes involving the transport of enormous volumes of sediment and water by the Mississippi River. This sediment was eroded from the lands of the vast Mississippi River Basin in the interior of North America. For the last several thousand years, the dominance of the land building or deltaic processes resulted in a net increase of more than four million acres of coastal wetlands. In addition, there was the creation of an extensive skeleton of higher natural levee ridges along the past and present Mississippi River channels, distributaries, and bayous in the Deltaic Plain and beach ridges of the Chenier Plain. The landscape created by these deltaic processes gave rise to one of the most productive ecosystems on Earth.

Today, most of the Mississippi River's fresh water, with its nutrients and sediment, flows directly into the Gulf of Mexico, largely bypassing the coastal wetlands. Deprived of land building sediment, the wetlands are damaged by saltwater intrusion and other causative factors associated with sea level change and land subsidence, and will eventually convert to open water.

Deprived of the nutrients, the plants that define the surface of the coastal wetlands die off. Once the coastal wetlands are denuded of vegetation, the fragile substrate is left exposed to the erosive forces of waves and currents, especially during tropical storm events. Since the 1930s coastal Louisiana has lost more than 1.2 million acres (485,830 ha) (Barras et al. 2003; Barras et al. 1994; and Dunbar et al. 1992). As recently as the 1970s, the loss rate for Louisiana's coastal wetlands was as high as 25,200 acres per year (10,202 ha per year). The rate of loss from 1990 to 2000 was about 15,300 acres per year (6,194 ha per year), mainly due to the residual effects of past human activity (Barras et al. 2003). It was estimated in 2000 that coastal Louisiana would continue to lose land at a rate of approximately 6,600 acres per year (2,672 ha per year) over the next 50 years. It is estimated that an additional net loss of 328,000 acres (132,794 ha) may occur by 2050, which is almost 10 percent of Louisiana's remaining coastal wetlands (Barras et al. 2003). The cumulative effects of human and natural activities in the coastal area have severely degraded the deltaic processes and shifted the coastal area from a condition of net land building to one of land loss.

Beneficial Use of Dredged Material Program (BUDMat) provides the framework, process and procedures for selecting, funding and implementing projects over a 10-year period that could create an estimated 21,000 acres of coastal wetlands. Dredged material will be acquired from maintenance activities of Federal waterways.

Estimated Federal Cost	\$ 65,000,000
Estimated non-Federal Cost	35,000,000
Total Estimated Cost	
Programmed Balance to Complete	\$100,000,000
Un-Programmed Balance to Complete	0

Demonstration Projects are designed to resolve critical areas of scientific or technological uncertainty related to the implementation of the restoration plan and ultimately the comprehensive plan.

Estimated Federal Cost	\$ 61,750,000
Estimated non-Federal Cost	33,250,000
Total Estimated Cost	
Programmed Balance to Complete	\$ 95,000,000
Un-Programmed Balance to Complete	0

Amite River Diversion Canal Modification restoration project includes portions of the Maurepas Swamp adjacent to the Amite River Diversion Canal which connects and diverts flows from the Amite River to the lower Blind River near Lake Maurepas. The Amite River Diversion Canal will restore the most degraded portion of the Maurepas Swamp within the study area by restoring the natural hydrology modified by the construction of the Amite River Diversion Canal and from the resulting impoundment of water, lack of freshwater, sediment and nutrients and surge-related saltwater intrusion. The project includes the creation of gaps and delivery channels through the north bank of the Amite River Diversion Canal.

Convey Atchafalaya River Water to Northern Terrebonne Marshes / Multipurpose Operation of the Houma Navigation Canal Lock restoration project is located in coastal Louisiana south of Houma, between the Atchafalaya River and Bayou Lafourche. These two projects are hydrologically linked and subsequently have been analyzed and are presented as a combined project. The Convey Atchafalaya River Water to Northern Terrebonne Marshes/Multipurpose Operation of the Houma Navigation Canal Lock will reduce the current trend of marsh degradation in the project area resulting from subsidence, sea level rise, erosion, saltwater intrusion, and lack of sediment and nutrient deposition. The project consists of elimination of Gulf Intracoastal Waterway (GIWW) flow constrictions and construction of flow management features in the interior portions of the project area. The project consists of construction of 56 structures and other water management features. The project also includes the multipurpose operation of the proposed Houma Navigation Canal Lock, if and when constructed. The lock complex would be closed and operated more frequently in order to maximize distribution of freshwater into wetlands downstream of the lock and minimizing saltwater intrusion upstream of the lock.

Small Diversion at Convent/Blind River project is located approximately equidistant between Baton Rouge and New Orleans, Louisiana targeting the Maurepas Swamp, one of the largest remaining cypress swamps in coastal Louisiana. It will reintroduce the natural periodic, nearly annual flooding by the Mississippi River to the Maurepas Swamp and Blind River, that was cut off by construction of the Mississippi River and Tributaries (MR&T) flood control system. The project has six major components: a diversion structure, a transmission canal, control structures, approximately 30 berm gaps, cross culverts at four locations along U.S. highway 61, and instrumentation to monitor and control the diversion flow rate and the water surface elevations in the diversion, transmission, and distribution system in the swamp. The project will restore freshwater, nutrients, and sediment input from the Mississippi River.

Terrebonne Basin Barrier Shoreline Restoration project is located in Terrebonne Parish 30 miles south of the city of Houma, Louisiana and includes the Isles Dernieres and the Timbalier Islands. These barrier islands have undergone significant reductions in size due to a number of natural processes and human actions including lack of sediment, storm-induced erosion and breaching, subsidence, sea level rise and hydrologic modifications such as navigation and oil and gas canals. The project will reintroduce sediment to the coastal sediment transport system through the restoration of Whiskey, Raccoon, Trinity, and Timbalier Islands and improve habitat function.

Medium Diversion at White Ditch project is located on the east bank of the Mississippi River south of New Orleans in Plaquemines Parish near the town of Phoenix, Louisiana. The project will restore the supply and distribution of freshwater and sediment disrupted by the construction of the Mississippi River and Tributaries flood control.

Barataria Basin Barrier Shoreline Restoration project consists of headland and barrier island restoration. Restoring and protecting these features helps preserve the western boundary of the Barataria Basin, preserve natural hydrologic function, provide habitat crucial to migratory birds, endangered species, commercial and recreational fisheries as well as contributing to the lines of defense for risk reduction to Barataria Basin interior wetlands and transportation infrastructure.

Land-bridge between Caillou Lake and the Gulf of Mexico project would maintain the natural hydrologic barrier between the Gulf and Caillou Lake and associated Terrebonne Basin wetlands as well as allow increased freshwater influence from the Atchafalaya River waters flowing eastward into Four League Bay. Project includes armoring the Gulf shoreline, rock armoring or marsh creation to plug/fill broken marsh to preserve the integrity of the land bridge and increase freshwater influences. Coastal marsh and habitat crucial to migratory birds would be protected. The bald eagle and essential fish habitat would also benefit. Subsidence, storm damage, increased tidal influence, and lack of sediment inputs have all caused significant adverse impacts resulting in wetland loss, habitat conversion, and ecosystem degradation. These habitat losses have had a direct adverse impact on wildlife and fisheries resources and State-designated Public Oyster Seed Reservations. The bald eagle and essential fish habitat would also benefit. The project would maintain the separation between Caillou Lake and the

Gulf of Mexico and Bay Voisin and the Gulf of Mexico, maintain the estuarine gradient, reduce the marine influences on Caillou Lake and Bay Voisin, and reverse the trend of deterioration in the associated wetlands and wildlife habitat.

Gulf Shoreline at Point Au Fer Island project provides for stabilizing the Gulf shoreline of this island, thereby precluding the formation of direct connections between the Gulf and Four League Bay, a situation that would lead to increasing salinities of island and inland coastal wetlands influenced by Atchafalaya River water. Protecting this island also protects habitat crucial to migratory birds, and provides storm surge protection to the southwestern corner of the Terrebonne Bay wetland system.

Modification of Caernarvon Diversion project will increase wetland creation and protection outputs for this existing structure through changes in the structure's operation. Currently, the structure operates on average at about one-half capacity to maintain salinity gradients. The wetlands of St. Bernard and Plaquemines Parishes suffered extensive losses from Hurricane Katrina and will directly benefit from the added sediments and freshwater introduced from the Mississippi River by increasing the freshwater introduction volume. The bald eagle and essential fish habitat are also expected to benefit.

Modification of Davis Pond Diversion project will increase wetland creation and protection outputs for this existing structure through changes in the structure's operation. The structure, operating on average at about one-half capacity, maintains salinity gradients in the central Barataria Basin. In addition to wetland creation, the freshwater wetlands of the upper Barataria Basin will be directly benefitted by the added sediments and freshwater introduced from the Mississippi River. The bald eagle and essential fish habitat are also expected to benefit.

Small Bayou Lafourche Reintroduction project consists of increasing channel flows by introducing 1,000 cfs of Mississippi River water into the Bayou at Donaldsonville to mimic the actions of a river crevasse. Dredging and bank stabilization would be required to control water levels and maintain bank stability and a sediment trap. Weirs are also features of the project. Projections are that 2,500 acres of coastal marsh would be protected, thousands of acres would benefit as would the bald eagle and essential fish habitat.

Medium Diversion at Myrtle Grove with Dedicated Dredging project consists of diverting 2,500 to 15,000 cfs from the Mississippi River into the Barataria Basin through a box culvert system and using 2 million cubic yards of Mississippi River material annually for several years to create marsh wetlands. As authorized, this project is expected to deliver benefits in the range of 11,500 acres and would benefit essential fish habitat, threatened/endangered species and colonial nesting birds. The Feasibility Cost Share Agreement was enacted May 2010.

Small Diversion at Hope Canal is expected to enhance approximately 36,000 acres of Maurepas Swamp wetlands primarily by introducing approximately 5,000 cfs from the Mississippi River. Project includes two box culverts; a receiving pond reinforced with riprap; and a 50-foot wide, and a 10-foot deep outflow channel roughly 27,500 feet long that will run from the river to U.S. Interstate 10.

Mississippi River Gulf Outlet Environmental Restoration involves the construction of shoreline protection measures such as rock breakwaters along the north bank of the Mississippi River Gulf Outlet and along important segments of the southern shoreline of Lake Borgne. Additional ecosystem restoration features including marsh creation, freshwater introduction, barrier island restoration, and channel modification would be investigated to develop a suite of measures to stabilize and maintain important estuarine components.

FISCAL YEAR 2011: Funds will be used to initiate construction of authorized restoration projects with reports that have favorably completed Executive Branch review.

FISCAL YEAR 2012: Funds of \$10,620,000 will be used to continue construction of authorized restoration projects with reports that have favorably completed Executive Branch review.

	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
<p>Requirements for Local Cooperation</p> <p>Provide lands, easements, and right-of-ways, including borrow and dredged material disposal areas.</p> <p>Accomplish alterations to roads, pipelines, cables, wharves, oil wells, and any other facilities necessary for construction of the project.</p> <p>Bear 35 percent of the total project cost, to include the items listed above and a cash contribution or equivalent work specifically undertaken, as an integral part of the project subsequent to the reports cited in the authorizing language.</p>	612,925,000	
Total Non-Federal Costs		

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below for all projects included in the LCA program. Local sponsor cost share responsibilities total \$612,925,000 for the program representing a 65% Federal/ 35% Non-Federal cost share.

STATUS OF LOCAL COOPERATION: The Project Partnership Agreements between the Federal Government and the State of Louisiana will be executed for the Demonstration Projects upon receipt of funds.

The Project Partnership Agreement between the Federal Government and the State of Louisiana will be executed for the Multipurpose Operation of Houma Navigation Canal Lock, Terrebone Basin Barrier Shoreline Restoration, Atchafalaya River Water to Northern Terrebonne Marshes, Small Diversion at Convent/Blind River, and Amite River Diversion Canal Modification Projects upon receipt of funds.

The Gulf Shoreline at Point Au Fer Island, Land-Bridge between Caillou Lake and the Gulf of Mexico, Modification of Caernarvon Diversion, and Modification of Davis Pond Diversion Projects are subject of the Feasibility Cost Share Agreement between the Federal Government and the State of Louisiana signed on 5 June 2009. Study of these project areas is currently scheduled to conclude in November 2011.

COMPARISON OF FEDERAL COST ESTIMATES: The Federal project cost estimate of \$1,138,475,000 is the same as that presented to Congress in FY 2011.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: A Supplemental Environmental Impact Statement for the Multipurpose Operation of Houma Navigation Canal Lock, Terrebonne Basin Barrier Shoreline Restoration, Atchafalaya River Water to Northern Terrebonne Marshes, Small Diversion at Convent/Blind River, and Amite River Diversion Canal Modification Projects was signed on 30 December 2010.

A Record of Decision for the Programmatic Environmental Impact Statement for the Beneficial Use of Dredged Material Program (BUDMat) was signed on 13 August 2010.

All subsequent environmental documentation associated with the work planned will be completed prior to initiation of construction.

OTHER INFORMATION: Cost estimates are subject to change pending the Executive Branch review of the Chief's Report completed 30 Dec 2010. The LCA program consists of 17 individual project elements to be constructed within the program.

Projects to be completed within the total LCA program are subject to the approval of decision documents that would support construction activity after execution of a PPA.	Estimated Federal Cost	Estimated Non-Federal Cost	Total Estimated Cost	Programmed Balance to Complete
Beneficial Use of Dredged Material Program (BUDMat)	\$65,000,000	\$35,000,000	\$100,000,000	\$100,000,000
Demonstration Projects	\$61,750,000	\$33,250,000	\$95,000,000	\$95,000,000
Amite River Diversion Canal Modification	\$3,640,000	\$1,960,000	\$5,600,000	\$5,600,000
Convey Atchafalaya River Water to Northern Terrebonne Marshes	\$143,880,000	\$77,320,000	\$221,200,000	\$221,200,000
Multipurpose Operation of Houma Navigation Canal Lock	\$11,765,000	\$6,335,000	\$18,100,000	\$18,100,000
Small Diversion at Convent/Blind River	\$57,200,000	\$30,800,000	\$88,000,000	\$88,000,000
Terrebonne Basin Barrier Shoreline Restoration	\$80,990,000	\$43,610,000	\$124,600,000	\$124,600,000
Barataria Basin Barrier Shoreline Restoration	\$157,690,000	\$84,910,000	\$242,600,000	\$242,600,000
Land-bridge between Caillou Lake and the Gulf of Mexico	\$36,595,000	\$19,705,000	\$56,300,000	\$56,300,000
Gulf Shoreline at Point Au Fer Island	\$28,210,000	\$15,190,000	\$43,400,000	\$43,400,000
Modification of Caernarvon Diversion	\$13,455,000	\$7,245,000	\$20,700,000	\$20,700,000
Modification of Davis Pond Diversion	\$41,730,000	\$22,470,000	\$64,200,000	\$64,200,000
Small Bayou Lafourche Reintroduction	\$86,775,000	\$46,725,000	\$133,500,000	\$133,500,000
Medium Diversion at Myrtle Grove with Dedicated Dredging	\$180,895,000	\$97,405,000	\$278,300,000	\$278,300,000
Medium Diversion at White's Ditch	\$55,965,000	\$30,135,000	\$86,100,000	\$86,100,000
Small Diversion at Hope Canal	\$44,590,000	\$24,010,000	\$68,600,000	\$68,600,000
Mississippi River Gulf Outlet Environmental Restoration	\$68,445,000	\$36,855,000	\$105,300,000	\$105,300,000
Total LCA Program Estimate	\$1,138,575,000	\$612,925,000	\$1,751,500,000	\$1,751,500,000

APPROPRIATION TITLE: Construction – Environmental Mitigation, Restoration, and Protection

PROJECT: Upper Mississippi River Restoration, Illinois, Iowa, Minnesota, Missouri, and Wisconsin (Continuing)

LOCATION: The project is authorized for those river reaches having commercial navigation channels on the Upper Mississippi River, Illinois River, Minnesota River, St. Croix River, and Kaskaskia River in the states of Illinois, Iowa, Minnesota, Missouri, and Wisconsin. The following counties are included: (Illinois) Jo Daviess, Carroll, Whiteside, Rock Island, Mercer, Henderson, Hancock, Adams, Pike, Calhoun, Jersey, Madison, St. Clair, Monroe, Randolph, Jackson, Union, Alexander, Pulaski, Brown, Cass, Schuyler, Fulton, Mason, Peoria, Tazewell, Woodford, Marshall, Putnam, Bureau, LaSalle, Grundy, Will; (Iowa) Allamakee, Clayton, Dubuque, Jackson, Clinton, Scott, Muscatine, Louisa, Des Moines, Lee; (Wisconsin) St. Croix, Pierce, Pepin, Buffalo, Trempealeau, La Cross, Vernon, Crawford, Grant; (Minnesota) Anoka, Hennepin, Scott, Dakota, Ramsey, Washington, Goodhue, Wabasha, Winona, Houston; (Missouri) Clark, Lewis, Marion, Ralls, Pike, Lincoln, St. Charles, St. Louis, Jefferson, Ste. Genevieve, Perry, Cape Girardeau, Scott, Mississippi.

DESCRIPTION: The purpose of the Upper Mississippi River Restoration project is to address adverse impacts to the aquatic ecosystem of the Upper Mississippi River. Habitat rehabilitation and enhancement projects are effectively preserving and improving fish and wildlife habitat on the Upper Mississippi River System (UMRS). Projects completed to date have been designed to counteract the effects of backwater sedimentation through dike construction to limit sedimentation of prime habitat and dredging to restore aquatic habitat; provide water level control and optimal food growth for waterfowl; create islands to decrease wind generated disturbances, thereby reducing turbidity; alter the flow of water to side channels and backwaters to decrease flows of sediment-laden water during high water and to increase dissolved oxygen levels during low water; increase the diversity and abundance of mast (nut) producing trees and prairies to benefit wildlife. Long-Term Resource Monitoring provides scientific information for more informed management of the UMRS ecosystem. Ninety-seven percent of authorized Upper Mississippi River Restoration appropriations have been used to design and construct habitat rehabilitation and enhancement projects and for Long-Term Resource Monitoring. Recreation development is an authorized program element.

AUTHORIZATION: Fiscal Year 1985 Supplemental Appropriations Act, P.L. 99-88; Water Resources Development Act of 1986, PL 99-662, Section 1103; Water Resources Development Act of 1990, P.L. 101-640, Section 405; Water Resources Development Act of 1992, P.L. 102-580, Section 107; Water Resources Development Act of 1999, P.L. 106-53, Section 509; and the Water Resources Development Act of 2007, P.L. 110-114, Section 3177.

REMAINING BENEFIT-REMAINING COST: The remaining benefit cost ratio for the entire project is not applicable because monetary benefits are not quantifiable.

TOTAL BENEFIT-COST RATIO: The total benefit-cost ratio for the entire project is not applicable because monetary benefits are not quantifiable. Projects within the Upper Mississippi River Restoration project are selected for design and construction based on continued assessment of habitat restoration and enhancement opportunities as determined by the involved Federal and non-Federal partners.

INITIAL BENEFIT-COST RATIO: The initial benefit-cost ratio for the entire project is not applicable because monetary benefits are not quantifiable.

BASIS OF BENEFIT-COST RATIO: The basis for the benefit-cost ratio for the entire project is not applicable because monetary benefits are not quantifiable.

Mississippi Valley Division

Rock Island District

Upper Mississippi River Restoration,
Illinois, Iowa, Minnesota, Missouri, and Wisconsin

14 February 2011

MVD-94

SUMMARIZED FINANCIAL DATA

			ACCUM PCT OF EST FED COST
Estimated Federal Cost		\$ 776,195,000	
Estimated Non-Federal Cost		8,204,000	
Cash Contribution	\$ 8,204,000		
Other Costs	0		
Total Estimated Project Cost		\$ 784,399,000	
Allocations through 30 September 2008		\$ 335,912,000	
Allocation for FY 2009		17,713,000	
Allocation for FY 2010		16,470,000	
Recovery Act (ARRA Allocations To Date)		13,929,000	
President's Budget for FY 2011		21,150,000	
Allocation for FY 2011		21,150,000	
Allocations through 30 September 2011		\$405,174,000	52
Budget for FY 2012		18,150,000	
Programmed Balance to Complete After FY 2012		353,371,000	
Unprogrammed Balance to Complete After FY 2012		0	

Mississippi Valley Division

Rock Island District

Upper Mississippi River Restoration,
Illinois, Iowa, Minnesota, Missouri, and Wisconsin

STATUS: (4 January 2011)

PERCENT
COMPLETE

PHYSICAL
COMPLETION
SCHEDULE

		PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Long Term Resource Monitoring		NA	NA
Economic Impacts of Recreation Study		100	(Sep 92)
Traffic Monitoring		100	(Sep 90)
Habitat Rehabilitation and Enhancement Projects (Construction)			
Angle Blackburn, MO	ST. LOUIS DISTRICT	0	Deferred
Batchtown Mgt. Area, IL	ST. LOUIS DISTRICT	86	(Aug 17)
Calhoun Point, IL	ST. LOUIS DISTRICT	98	(Aug 11)
Clarence Cannon NWR, MO	ST. LOUIS DISTRICT	1	TBD
Clarksville Refuge, MO	ST. LOUIS DISTRICT	100	(Apr 90)
Cuivre Island, MO	ST. LOUIS DISTRICT	100	(Jul 99)
Dresser Island, MO	ST. LOUIS DISTRICT	100	(Sep 91)
Establishment Chute, MO	ST. LOUIS DISTRICT	0	Deferred
Godar Wetland Complex, IL	ST. LOUIS DISTRICT	1	TBD
Glades Wetland Complex, IL	ST. LOUIS DISTRICT	1	TBD
Jefferson Barracks Side Channel, IL	ST. LOUIS DISTRICT	0	Deferred
Harlow Island, MO	ST. LOUIS DISTRICT	1	TBD
Least Tern, MO	ST. LOUIS DISTRICT	22	Deferred
Norton Woods, MO	ST. LOUIS DISTRICT	0	Deferred
Pharrs Island, MO	ST. LOUIS DISTRICT	100	(Jun 92)
Piasa & Eagle Nest Island, IL	ST. LOUIS DISTRICT	1	TBD
Pool 9 Islands, WI	ST. LOUIS DISTRICT	100	(Jan 95)
Pool 24 Islands, MO	ST. LOUIS DISTRICT	1	TBD
Pools 25 and 26, MO	ST. LOUIS DISTRICT	35	(Sep 16)
Reds Landing, IL	ST. LOUIS DISTRICT	1	TBD
Rip Rap Landing, IL	ST. LOUIS DISTRICT	6	TBD
Salt Lake/Ft Chartres S.C., IL	ST. LOUIS DISTRICT	7	TBD
Stag & Keaton Is., MO	ST. LOUIS DISTRICT	100	(Sep 98)
Stump Lake, IL	ST. LOUIS DISTRICT	100	(Nov 98)
Schenimann, MO	ST. LOUIS DISTRICT	15	TBD
Stone Dike Alteration, IL/MO	ST. LOUIS DISTRICT	10	Deferred
Swan Lake, IL	ST. LOUIS DISTRICT	98	(Dec 13)
Ted Shanks, MO	ST. LOUIS DISTRICT	15	(Oct 22)
West Alton Missouri Islands	ST. LOUIS DISTRICT	1	TBD
Wilkinson Island, IL	ST. LOUIS DISTRICT	5	TBD

Mississippi Valley Division

Rock Island District

Upper Mississippi River Restoration,
Illinois, Iowa, Minnesota, Missouri, and Wisconsin

STATUS: (4 January 2011) (Continued)

		PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Andalusia Refuge, IL	ROCK ISLAND DISTRICT	100	(Dec 94)
Banner Marsh, IL	ROCK ISLAND DISTRICT	100	(Dec 03)
Bay Island, MO	ROCK ISLAND DISTRICT	100	(Nov 94)
Beaver Island, IA	ROCK ISLAND DISTRICT	3	TBD
Bertom Lake, WI	ROCK ISLAND DISTRICT	100	(Jun 92)
Big Timber, IA	ROCK ISLAND DISTRICT	100	(Jun 95)
Boston Bay, IL	ROCK ISLAND DISTRICT	1	TBD
Brown's Lake, IA	ROCK ISLAND DISTRICT	100	(Sep 94)
Chautauqua Refuge, IL	ROCK ISLAND DISTRICT	100	(Dec 03)
Cottonwood Island, MO	ROCK ISLAND DISTRICT	100	(Dec 99)
DeLair Division, IL	ROCK ISLAND DISTRICT	1	TBD
Fox Island, MO	ROCK ISLAND DISTRICT	50	(Apr 15)
Gardner Div., IL	ROCK ISLAND DISTRICT	100	(Jan 98)
Huron Island, IA	ROCK ISLAND DISTRICT	12	(May 17)
Keithsburg Division, IL	ROCK ISLAND DISTRICT	1	TBD
Lake Odessa, IA	ROCK ISLAND DISTRICT	95	(Sep 11)
Pool 11 Islands, WI/IA	ROCK ISLAND DISTRICT	100	(Sept 07)
Pleasant Creek, IA	ROCK ISLAND DISTRICT	100	(Jan 03)
Monkey Chute, MO	ROCK ISLAND DISTRICT	100	(Aug 89)
Peoria Lake, IL	ROCK ISLAND DISTRICT	100	(Sep 97)
Peosta Channel, IA	ROCK ISLAND DISTRICT	0	Deferred
Pool 12 Overwintering IA/IL	ROCK ISLAND DISTRICT	23	(Sep 19)
Potters Marsh, IL	ROCK ISLAND DISTRICT	100	(Jun 96)
Princeton, IA	ROCK ISLAND DISTRICT	100	(Dec 01)
Rice Lake, IL	ROCK ISLAND DISTRICT	30	(Sep 14)
Smith's Creek, IA	ROCK ISLAND DISTRICT	9	Deferred
Snyder Slough, WI	ROCK ISLAND DISTRICT	1	TBD
Spring Lake, IL	ROCK ISLAND DISTRICT	100	(Sep 01)
Steamboat Island, IA	ROCK ISLAND DISTRICT	1	TBD
Turkey Island, IA/WI	ROCK ISLAND DISTRICT	1	TBD

Mississippi Valley Division

Rock Island District

Upper Mississippi River Restoration,
Illinois, Iowa, Minnesota, Missouri, and Wisconsin

STATUS: (4 January 2011) (Continued)

		PHYSICAL COMPLETE	PHYSICAL COMPLETION SCHEDULE
Ambrough Slough, WI	ST. PAUL DISTRICT	100	(Sep 04)
Bass Ponds, MN	ST. PAUL DISTRICT	0	TBD
Blackhawk Park, WI	ST. PAUL DISTRICT	100	(Nov 90)
Bussey Lake, IA	ST. PAUL DISTRICT	100	(Jun 96)
Capoli Slough, WI	ST. PAUL DISTRICT	20	(Sep 14)
Clear Lake, MN	ST. PAUL DISTRICT	0	TBD
Cold Springs, WI	ST. PAUL DISTRICT	100	(Aug 94)
Conway Lake, IA	ST. PAUL DISTRICT	2	TBD
East Channel, WI, MN	ST. PAUL DISTRICT	100	(Jun 97)
Finger Lakes, MN	ST. PAUL DISTRICT	100	(Jul 94)
Guttenberg Waterfowl Ponds, IA	ST. PAUL DISTRICT	100	(Oct 90)
Harpers Slough, IA	ST. PAUL DISTRICT	5	TBD
Indian Slough, WI	ST. PAUL DISTRICT	100	(Jun 94)
Island 42, MN	ST. PAUL DISTRICT	100	(May 87)
Lake Onalaska, WI	ST. PAUL DISTRICT	100	(Jul 90)
Lake Winneshiek, WI	ST. PAUL DISTRICT	0	TBD
Lansing Big Lake, IA	ST. PAUL DISTRICT	100	(Nov 94)
Lock & Dam 3 Fish Passage, MN/WI	ST PAUL DISTRICT	10	TBD
Long Lake, WI	ST. PAUL DISTRICT	100	(May 00)
Long Meadow Lake, MN	ST. PAUL DISTRICT	100	(Nov 06)
Lower Pool 10 Islands & Backwater Complex, IA	ST. PAUL DISTRICT	1	TBD
McGregor Lake, WI	ST. PAUL DISTRICT	1	TBD
Miss. River Bank Stabilization, MN/WI	ST. PAUL DISTRICT	100	(Sep 99)
North & Sturgeon Lakes, MN	ST PAUL DISTRICT	1	TBD
Peterson Lake, MN	ST. PAUL DISTRICT	100	(Jun 96)
Polander Lake, MN	ST. PAUL DISTRICT	100	(Nov 00)
Pool 8 Isl, Phase I, WI	ST. PAUL DISTRICT	100	(Jun 93)
Pool 8 Isl, Phase II, WI	ST. PAUL DISTRICT	100	(Sep 99)
Pool 8 Isl, Phase III, WI	ST. PAUL DISTRICT	80	(Sep 11)

Mississippi Valley Division

Rock Island District

Upper Mississippi River Restoration,
Illinois, Iowa, Minnesota, Missouri, and Wisconsin

STATUS: (4 January 2011)
 (Continued)

		PHYSICAL COMPLETE	PHYSICAL COMPLETION SCHEDULE
Pool 9 Island, WI	ST. PAUL DISTRICT	100	(Jun 95)
Pool Slough, IA	ST. PAUL DISTRICT	100	(Apr 07)
Rice Lake, MN	ST. PAUL DISTRICT	100	(Nov 98)
Small Scale Drawdown, WI	ST. PAUL DISTRICT	100	(Sep 97)
Spring Lake Peninsula, WI	ST. PAUL DISTRICT	100	(Nov 94)
Spring Lake Islands, WI	ST. PAUL DISTRICT	100	(Jul 06)
Trempealeau NWR, WI	ST. PAUL DISTRICT	100	(Sep 99)
Weaver Bottoms, MN	ST. PAUL DISTRICT	0	TBD
Whitewater River, MN	ST. PAUL DISTRICT	2	Deferred
Recreation		0	Unscheduled
Habitat Needs Assessment		100	(Sep 00)

Mississippi Valley Division

Rock Island District

Upper Mississippi River Restoration,
 Illinois, Iowa, Minnesota, Missouri, and Wisconsin

14 February 2011

MVD-99

JUSTIFICATION: Implementation of the Upper Mississippi River Restoration project is essential to the continued viability of the ecosystem of the Upper Mississippi River and important to the long-term public acceptance and support of Upper Mississippi River System (UMRS) navigation. Habitat rehabilitation and enhancement projects help reduce the negative effects of navigation features on the system's backwater and side channels. Projects are selected for design and construction based on continued assessment of habitat restoration and enhancement opportunities as determined by the involved Federal and non-Federal partners and following the project sequencing process adopted in 2003. Long-Term Resource Monitoring provides data to indicate trends in key environmental parameters, analyzing sedimentation and other UMRS resource problems, and producing a spatial information database. An Economic Impacts of Recreation Study has been conducted to enable Federal and non-Federal management decisions to better consider impacts on recreation and the consequent changes in recreation-related expenditures in the local and regional economies.

FISCAL YEAR 2011: The requested amount will be used to continue projects under way in FY 2010 and to continue monitoring and other restoration-related activities, as follows:

PROJECT	DISTRICT	AMOUNT	STATUS
Batchtown Mgmt Area Dredging, IL	ST. LOUIS DISTRICT	550,000	Continue Construction
Pool 24 Islands, MO	ST. LOUIS DISTRICT	50,000	Continue Design
Pool 25 and 26, MO	ST. LOUIS DISTRICT	1,600,000	Continue Construction
Rip Rap Landing, IL	ST. LOUIS DISTRICT	50,000	Continue Design
Swan Lake, IL Pump Station Mod	ST. LOUIS DISTRICT	600,000	Complete Construction
Ted Shanks, MO	ST. LOUIS DISTRICT	1,126,000	Continue Construction
Beaver Island, IA	ROCK ISLAND DISTRICT	100,000	Continue Design
Fox Island	ROCK ISLAND DISTRICT	100,000	Complete Construction
Huron Island, IA	ROCK ISLAND DISTRICT	150,000	Continue Design
Rice Lake, IL Stage II	ROCK ISLAND DISTRICT	200,000	Complete Design
Rice Lake, IL Stage II	ROCK ISLAND DISTRICT	3,998,000	Initiate Construction
Pool 12, IL	ROCK ISLAND DISTRICT	250,000	Continue Design
Capoli Slough, WI	ST. PAUL DISTRICT	500,000	Continue Design
Capoli Slough, WI	ST. PAUL DISTRICT	2,936,000	Initiate Construction
Conway Lake, IA	ST. PAUL DISTRICT	20,000	Continue Design
Harpers Slough, IA	ST. PAUL DISTRICT	200,000	Continue Design
Lake Winneshiek, WI	ST. PAUL DISTRICT	20,000	Continue Design

Mississippi Valley Division

Rock Island District

Upper Mississippi River Restoration,
Illinois, Iowa, Minnesota, Missouri, and Wisconsin

FISCAL YEAR 2011 (Continued):

PROJECT	DISTRICT	AMOUNT	STATUS
McGregor Lake, IA	ST. PAUL DISTRICT	20,000	Continue Design
Pool 8 Phase III Stage 3, WI	ST. PAUL DISTRICT	150,000	Complete Construction
L/D 3 Fish Passage	ST. PAUL DISTRICT	100,000	Initiate Design
North & Sturgeon Lakes, MN	ST. PAUL DISTRICT	20,000	Initiate Design
Regional Project Sequencing		100,000	
Habitat Evaluation/Monitoring		950,000	
Public Involvement		100,000	
Long Term Resource Monitoring		6,360,000	
Report to Congress		50,000	
Program Management		850,000	
TOTAL		\$21,150,000	

FISCAL YEAR 2012: The requested amount will be used to continue projects under way in FY 2011, initiate one new construction phase, and to continue monitoring and other restoration-related activities, as follows:

Mississippi Valley Division

Rock Island District

Upper Mississippi River Restoration,
Illinois, Iowa, Minnesota, Missouri, and Wisconsin

PROJECT	DISTRICT	AMOUNT	STATUS
Batchtown Mgmt Area Dredging, IL	ST. LOUIS DISTRICT	400,000	Continue Construction
Harlow Island,	ST. LOUIS DISTRICT	0	Initiate Planning
Pool 24 Islands, MO	ST. LOUIS DISTRICT	125,000	Continue Design
Pool 25 and 26, MO	ST. LOUIS DISTRICT	300,000	Continue Construction
Rip Rap Landing, IL	ST. LOUIS DISTRICT	125,000	Continue Design
Swan Lake, IL – Pump Station Mod	ST. LOUIS DISTRICT	300,000	Complete Construction
Ted Shanks, MO	ST. LOUIS DISTRICT	2,614,000	Continue Construction
Wilkinson Island, IL	ST. LOUIS DISTRICT	0	Continue Design
Beaver Island, IA	ROCK ISLAND DISTRICT	50,000	Continue Design
Huron Island, IA	ROCK ISLAND DISTRICT	150,000	Continue Design
Boston Bay, IL	ROCK ISLAND DISTRICT	50,000	Initiate Planning
Rice Lake, IL	ROCK ISLAND DISTRICT	2,615,000	Continue Construction
Pool 12, IL	ROCK ISLAND DISTRICT	180,000	Continue Design
Pool 12, IL	ROCK ISLAND DISTRICT	542,000	Initiate Construction
Steamboat Island, IL	ROCK ISLAND DISTRICT	0	Initiate Planning
Boston Bay, IL	ROCK ISLAND DISTRICT	0	Initiate Planning
Capoli Slough, WI	ST. PAUL DISTRICT	2,502,000	Continue Construction
Conway Lake, IA	ST. PAUL DISTRICT	100,000	Continue Design
Harpers Slough, IA	ST. PAUL DISTRICT	400,000	Complete Design
Harpers Slough, IA	ST. PAUL DISTRICT	400,000	Initiate Construction
Lake Winneshiek, WI	ST. PAUL DISTRICT	100,000	Continue Design
McGregor Lake, IA	ST. PAUL DISTRICT	0	Continue Design
North & Sturgeon lakes, MN	ST. PAUL DISTRICT	0	Continue Design
Regional Project Sequencing		40,000	
Habitat Evaluation/Monitoring		900,000	
Public Involvement		50,000	
Long Term Resource Monitoring		5,457,000	
Program Management		750,000	
TOTAL		18,150,000	

NON-FEDERAL COSTS: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986 and amended by Section 107(b) of the Water Resources Development Act of 1999, the non-Federal sponsor must comply with the requirements listed below.

Annual Operation,

Mississippi Valley Division

Rock Island District

Upper Mississippi River Restoration,
Illinois, Iowa, Minnesota, Missouri, and Wisconsin

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Maintenance, Repair, Rehabilitation, and Replacement Costs
Pay 25 percent of the first costs allocated to fish and wildlife enhancement for the following projects:		
Baldwin Backwater, IL	\$ 624,000	
Banner Marsh, IL	1,780,000	
Batchtown, IL	146,000	
Blackhawk Park, WI	77,000	
Bussey Lake, IA	162,000	
Cuivre Island, MO	498,000	
Osborne Channel, IL	190,000	
Peoria Lake, IL	42,000	
Princeton, IA	54,000	
Swan Lake, IL	262,000	
Subtotal	\$ 3,835,000	\$ 0
Pay 35 percent of the first costs allocated to fish and wildlife enhancement for the following projects:		
Ambrough Slough, WI	\$ 166,000	
Pool Slough, IA, MN	175,000	
Rice Lake, IL	3,378,000	
Smith Creek, IA	300,000	
Kaskaskia Oxbow	350,000	
Subtotal	\$ 4,369,000	\$ 0
Pay 50 percent of the first costs allocated to recreation projects.	0 ¹	
Total Non-Federal Construction Costs	\$ 8,204,000	\$ 0
The non-Federal sponsors have agreed to make all required payments concurrently with project construction.		

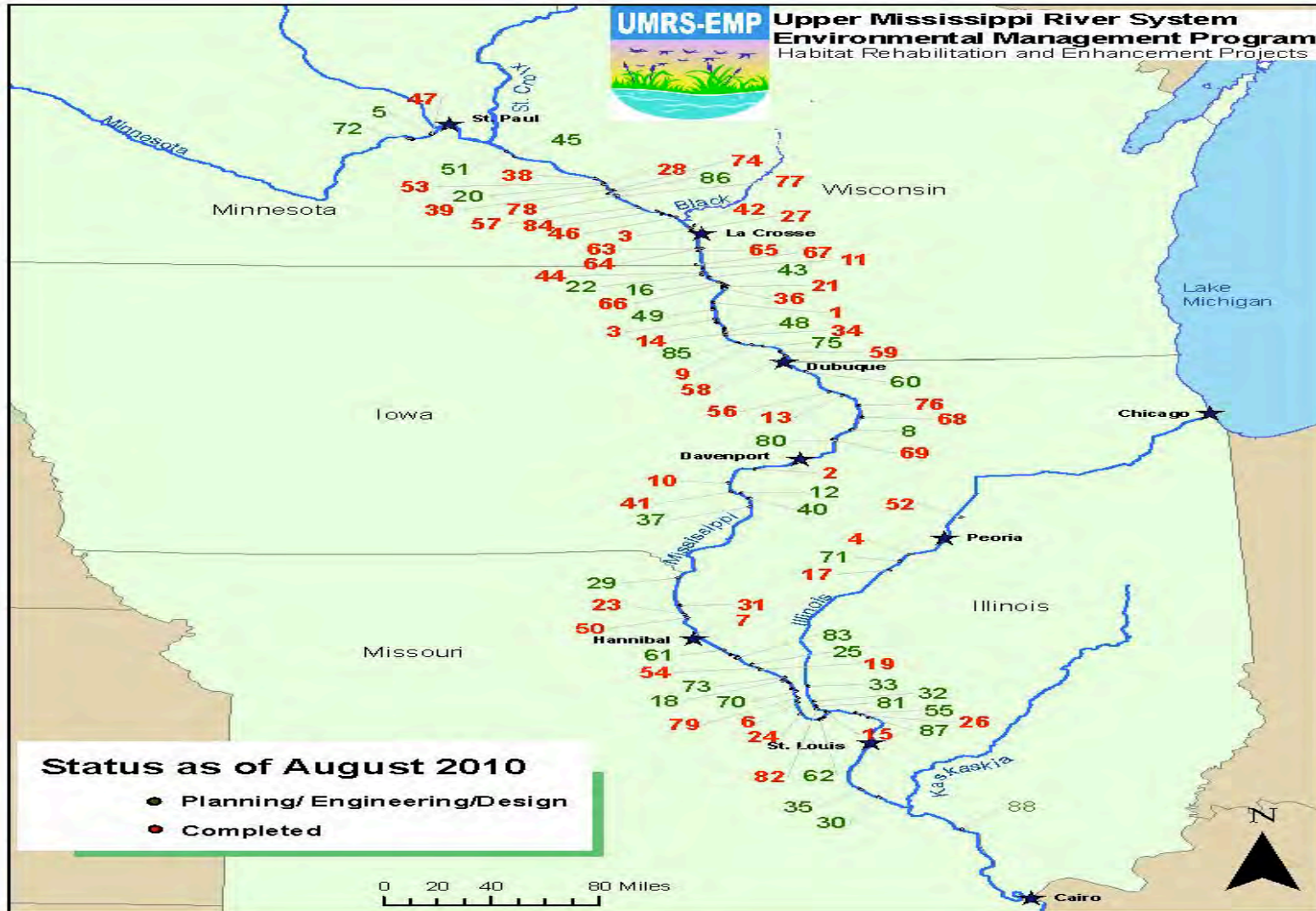
¹ No recreation projects scheduled.

STATUS OF LOCAL COOPERATION: A Project Cooperation Agreement is required only for projects that are not located on lands managed as a national wildlife refuge.

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal cost estimate of \$776,195,000 is the same as the latest estimate presented to Congress (FY 2009).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: National Environmental Policy Act compliance is accomplished prior to implementation of each individual project.

OTHER INFORMATION: Funds to initiate construction were appropriated in FY 1985. The Water Resources Development Act of 1999, P.L. 106-53, amends the previous authority to increase annual appropriation limits available to the project; requires submission of a report to Congress on a 6 year cycle which began in December 2004 to evaluate projects, accomplishments, systemic habitat needs, and identifies any needed changes to the project authorization; and authorized an independent technical review committee through FY 2009. To date program has received \$6,700,000 in Supplemental Appropriations due to flood damages at Odessa Habitat site and \$13,929,000 of American Recovery and Reinvestment Act (ARRA) funds.



Mississippi Valley Division

Rock Island District

Upper Mississippi River Restoration,
Illinois, Iowa, Minnesota, Missouri, and Wisconsin

14 February 2011

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EMP HREP Projects	Site Ref.	EMP HREP Projects	Site Ref.
Ambrough Slough	1	Long Meadow Lake	47
Andalusia Refuge	2	Lower Pool 10 Island and Backwater Complex	48
Bank Stabilization	3	McGregor Lake	49
Banner Marsh	4	Monkey Chute	50
Bass Ponds, Marsh, and Wetlands	5	North and Sturgeon Lakes	51
Batchtown Management Area	6	Peoria Lake	52
Bay Island	7	Peterson Lake	53
Beaver Island Complex	8	Pharrs Island	54
Bertom & McCartney Lakes	9	Piasa/Eagle's Nest Islands	55
Big Timber	10	Pleasant Creek	56
Blackhawk Park	11	Polander Lake	57
Boston Bay	12	Pool 11 Islands-Sunfish Lake	58
Brown's Lake	13	Pool 11 Islands-Mud Lake	59
Bussey Lake	14	Pool 12 Overwintering	60
Calhoun Point	15	Pool 24 Islands	61
Capoli Slough	16	Pool 25 & 26 Islands	62
Chautauqua Refuge	17	Pool 8 Islands - Phase I	63
Clarence Cannon	18	Pool 8 Islands - Phase II	64
Clarksville Refuge	19	Pool 8 Islands - Phase III	65
Clear Lake	20	Pool 9 Islands	66
Cold Springs	21	Pool Slough	67
Conway Lake	22	Potters Marsh	68
Cottonwood Island	23	Princeton Refuge	69
Cuivre Island	24	Reds Landing	70
Delair Division	25	Rice Lake-IL	71
Dresser Island	26	Rice Lake-MN	72
East Channel	27	Rip Rap Landing	73
Finger Lakes	28	Small Scale Drawdown	74
Fox Island Habitat Rehab & Enhancement Project	29	Snyder Slough Backwater Complex	75
Ft Chartres Side Channel	30	Spring Lake	76
Gardner Division	31	Spring Lake Islands	77
Glades Wetland Complex	32	Spring Lake Peninsula	78
Godar Refuge Wetland	33	Stag and Keeton Islands	79
Guttenberg Waterfowl	34	Steamboat Island	80
Harlow Island	35	Stump Lake	81
Harpers Slough	36	Swan Lake	82
Huron Island	37	Ted Shanks Conservation	83
Indian Slough	38	Trempealeau Refuge	84
Island 42	39	Turkey River Bottoms Delta and Backwater Complex	85
Keithsburg Division	40	Weaver Bottoms	86

Mississippi Valley Division

Rock Island District

Upper Mississippi River Restoration,
Illinois, Iowa, Minnesota, Missouri, and Wisconsin

lake Odessa	41	West Alton Tract	87
Lake Onalaska	42	Wilkinson Island	88
Lake Winneshiek	43		
Lansing Big Lake	44		
Lock & Dam 3	45		
Long Lake	46		

OPERATION AND MAINTENANCE

Key to Abbreviations:

N = Navigation

FDR = Flood Damage Reduction

Rec = Recreation

Hydro = Hydropower

ES = Environmental Stewardship

WS = Water Supply

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Atchafalaya River and Bayous Chene, Boeuf and Black, LA

AUTHORIZATION: River and Harbor Act of 3 July 1968, 13 Aug 1068, Sec 101

LOCATION AND DESCRIPTION: The project is located in south central Louisiana. It provides for a 20-foot deep by 400-foot wide navigation channel.

RECOVERY ACT ALLOCATIONS TO DATE: \$6,443,000

ALLOCATION FOR FY 2011: \$8,230,000

BUDGET FOR FY 2012: M: \$ 6,857,000 O: \$ 295,000 T: \$ 7,152,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$7,152,000 - Funds will be used to dredge the Atchafalaya River Horseshoe Bend and the portion of the authorized channel in the Atchafalaya Bay, perform channel condition surveys of the entire project and routine O&M. Coordinate and prepare environmental compliance consistency, and continue monitoring the effectiveness of Value Engineering Study alternatives to improve navigation and to alleviate unconsolidated fluid mud in the bar channel. Perform engineering and design, spec review, cost estimating for award of dredging contracts. Continue work on the Dredged Material Management Plan (DMMP).

FDR: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Bayou Bodcau Dam and Reservoir, Louisiana

AUTHORIZATION: Flood Control Act (FCA) of 28 June 1938, H.D. 378, 74 Congress 2d Session, FCA 22 June 1936, modified by Act of 28 June 1939

LOCATION AND DESCRIPTION: Bodcau Bayou Dam and Reservoir is a single purpose flood control reservoir located on Bayou Bodcau, a tributary of the Red River. Recreation and natural resource stewardship are important secondary uses of project lands at Bodcau.

RECOVERY ACT ALLOCATIONS TO DATE: \$1,948,000

ALLOCATION FY 2011: T: \$1,072,000

BUDGET FOR FY 2012: M: \$1,032,000 O: \$1,025,000 T: \$2,057,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A.

FDR: \$1,532,000 funding provides for routine operation and maintenance of dam operations, dam safety data gathering, water control/quality analysis and collection and real estate management and repair of five slides.

Rec: \$383,000 provides for operation and maintenance of recreation areas including re-opening parks.

Hydro: N/A.

ES: \$142,000 provides conservation and protection of soil, water, wetland, vegetation, waterfowl, fish and state and federal endangered and threatened species of approximately 33,000 acres.

WS: N/A.

OTHER INFORMATION: Bayou Bodcau Dam has recently been classified as DSAC III as part of the Corps-wide dam safety initiative. Guidance indicates that the dam must be remediated to DSAC IV prior to any modifications being made to the dam or its functions increase risk. A study is currently underway (Bossier Parish) that will address repairs as part of the study's recommended plan.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Bayou Lafourche and Lafourche-Jump Waterway, LA

AUTHORIZATION: River and Harbor Act 30 August 1935 and 14 July 1960

LOCATION AND DESCRIPTION: The project is located in Southeast Louisiana in Lafourche Parish. Bayou Lafourche is a 36.3-mile navigation channel in Lafourche Parish from LaRose, Louisiana, to Belle Pass in the Gulf of Mexico. Channel dimensions are 6 feet deep by 60 feet wide from Mile 35 to Mile 21.9, 9 feet deep by 100 feet wide from Mile 21.9 to Mile 13.0, 12 feet deep by 125 feet wide from Mile 13.0 to Mile 3.4, 24 feet deep by 300 feet wide from Mile 3.4 to Mile 0.0 (Port Fourchon Reach), and 26 feet deep by 300 feet wide from Mile 0.0 to Mile (-1.3) (Belle Pass).

RECOVERY ACT ALLOCATIONS TO DATE: \$2,987,487

ALLOCATION FOR FY 2011: \$1,050,000

BUDGET FOR FY 2012: M: \$1,099,000 O: \$92,000 T: \$1,191,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$1,191,000 - Funds will be used for dredging the bar channel and Port Fourchon, hydrographic surveys, for preparation for Environmental Assessments for wetland development/restoration sites, collect and disseminate data from water level gauges, to change benchmarks and reset gauges from NGVD to NAVD, to provide right-of-entry to dredged material disposal areas and to reduce encroachments.

FDR: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Dredged shoal material from the navigation channel is used, within the Federal Standard, to beneficially restore and maintain Louisiana coastal shorelines and nourish coastal marshes and wetlands.

Mississippi Valley Division

New Orleans District

Bayou Lafourche and
Lafourche-Jump Waterway, Louisiana

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Bayou Pierre, LA

AUTHORIZATION: Flood Control Act 1946.

LOCATION AND DESCRIPTION: The project provides for flood control by channel improvement and enlargement of Ockley Drive Ditch and segments of Bayou Pierre in the vicinity of Shreveport, Louisiana.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

ALLOCATION FOR FY 2011: T: \$24,000

BUDGET FOR FY 2012: M: \$24,000 O: \$0 T: \$24,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A.

FDR: \$24,000 provides for routine operation and maintenance for flood damage reduction.

Rec: N/A.

Hydro: N/A.

ES: N/A.

WS: N/A.

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Bayou Teche, LA

AUTHORIZATION: River and Harbor Act 26 June 1934 and prior RHA's

LOCATION AND DESCRIPTION: The project is located in south central Louisiana in St. Mary Parish. The project is primarily a shallow draft navigation project.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

ALLOCATION FOR FY 2011: \$150,000

BUDGET FOR FY 2012: M: \$40,000 O: \$92,000 T: \$132,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$132,000 - Funds will be used for hydrographic surveys, right-of-entry for dredged material disposal, to change benchmarks and reset gauges from NGVD to NAVD, and waterway debris removal.

FDR: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Bayou Teche & Vermilion River, LA

AUTHORIZATION: FCA of 18 August 1941. Reclassified as an "Operations and Maintenance, General" project under the category "Navigation" by authority of the Office, Chief of Engineers, in 1st endorsement, 23 April 1956, on letter of the Division Engineer, U.S. Army Engineer Division, Lower Mississippi Valley, 6 March 1956, subject, "Classification of the Mermentau River and Bayou Teche and Vermilion River, Operation and Maintenance, General Projects".

LOCATION AND DESCRIPTION: The project is located in southwest Louisiana. The project is a multi-purpose project providing navigation and flood control to several parishes in southwest Louisiana.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

ALLOCATION FOR FY 2011: \$11,000

BUDGET FOR FY 2012: M: \$0 O: \$15,000 T: \$15,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$ 15,000 Funds will be used to perform hydrographic surveys and to change vertical datum from NGVD to NAVD.

FDR: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None

Mississippi Valley Division

New Orleans District

Bayou Teche & Vermilion
River, Louisiana

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Big Stone Lake and Whetstone River (Highway 75 Dam), MN and SD

AUTHORIZATION: FCA 1965; RHA 1965

LOCATION AND DESCRIPTION: On Minnesota River near Ortonville and Odessa, MN and Big Stone City, SD, at the outlet of Big Stone Lake and in Big Stone and Lac qui Parle Counties, MN, and Grant County, SD. The 1965 Flood Control Act authorized improvements for wildlife conservation and development, flood control, and recreation. The plan provided for a dam on the Minnesota River near Odessa, Minnesota, which has created a conservation pool of 2,800 acres for wildlife purposes. Upstream improvements include construction of bank protection and related work along the lower 6-mile reach of Whetstone River in South Dakota, modification of the existing dam and silt barrier at the outlet of Big Stone Lake, and channel improvement on the Minnesota River for 3 miles below the outlet control dam.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

ALLOCATION FOR FY 2011: T: \$251,000

BUDGET FOR FY 2012: M: \$0 O: \$236,000 T: \$236,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FDR: \$222,000 – Required to operate, maintain, monitor dam and structures, complete water control data collection and analysis activities to meet minimum requirements for dam safety and provide design operation. Maintain critical instrumentation in the structure and monitor instrumentation data.

Rec: N/A

Hydro: N/A

ES: \$14,000 - Protect Corps fee owned land and waters from encroachments and imminent loss of significant natural resources due to erosion, wildfire, pests, trespass, or human activity and/or environmentally induced events as necessary to meet legal and regulatory requisites of the National Environmental Policy Act.

WS: N/A

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Blakely Mountain Dam/Lake Ouachita, Arkansas

AUTHORIZATION: Flood Control Act 1944, Section 10.

LOCATION AND DESCRIPTION: Blakely Mountain Dam/Lake Ouachita is located on the Ouachita River in Garland and Montgomery Counties, Arkansas, west of Hot Springs, Arkansas. The project consists of an earth-fill dam, power plant and lake for hydropower generation, flood control, recreation, water supply, and natural resources management. Storage capacity of the lake is 2,768,000 acre-feet. The power plant has a generating capacity of 75,000 kilowatts. Twenty campgrounds and recreation areas are located on the project. Annual public visitation to the project is 4,500,000.

RECOVERY ACT ALLOCATIONS TO DATE: \$953,800

ALLOCATION FOR FY 2011: T: \$8,452,000

BUDGET FOR FY 2012: M: \$2,001,000 O: \$5,240,000 T: \$7,241,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A.

FDR: \$843,000 provides for routine operation and maintenance of the dam including inspections and data collection.

Rec: \$2,887,000 provides routine operation and maintenance of recreation facilities.

Hydro: \$3,395,000 provides for routine operation and maintenance of the hydropower facilities.

ES: \$116,000 provides for monitoring and surveying wildlife and other organisms listed as threatened or endangered, monitoring culturally significant sites for disturbances, taking protective measures for prevent disturbances, investigating and reporting disturbances, forest management activities and monitoring exotic species infestations in Lake Ouachita and updating Lake Ouachita Master Plan.

WS: N/A

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Caddo Lake Dam, Louisiana

AUTHORIZATION: Flood Control Act of 27 October 1965, S.D. 39, 89th Congress, 1st Session, PL 89-298, WRDA 1976, PL 94-587, 22 October 1976.

LOCATION AND DESCRIPTION: Caddo Lake is located in Caddo Parish, Louisiana, about 19 miles northwest of Shreveport, Louisiana, just upstream of the confluence of Black and Twelvemile Bayous.

RECOVERY ACT ALLOCATIONS TO DATE: \$26,200

ALLOCATION FOR FY 2011: T: \$222,000

BUDGET FOR FY 2012: M: \$0 O: \$220,000 T: \$220,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A.

FDR: \$162,000 provides for routine operation and maintenance for flood damage reduction.

Rec: \$58,000 provides for routine operation and maintenance of recreation facilities.

Hydro: N/A.

ES: N/A.

WS: N/A.

OTHER INFORMATION: None.

Mississippi Valley Division

Vicksburg District

Caddo Lake Dam,
Louisiana

14 February 2011

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O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Calcasieu River and Pass, LA

AUTHORIZATION: River and Harbor Act of 24 July 1946, as amended, CH 594-PL525

LOCATION AND DESCRIPTION: The 68-mile channel is located in southwest Louisiana and extends from the Gulf of Mexico to Lake Charles, Louisiana. The project is authorized at 40x400 feet inland and 42x800 feet in the bar channel.

RECOVERY ACT ALLOCATIONS TO DATE: \$13,770,000

ALLOCATION FOR FY 2011: \$14,495,000

BUDGET FOR FY 2012: M: \$14,234,000 O: \$1,240,000 T: \$15,474,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$15,474,000 - Funds will be used for dredging, maintenance of existing combined upland dredged material disposal areas, operate and maintain the Saltwater Barrier Control Structure, hydrographic surveys, right-of-entry for dredged material disposal areas, reduce encroachments, gather engineering data necessary for monitoring the stability of the Calcasieu River Saltwater Barrier, and change vertical datum from NGVD to NAVD.

FDR: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Carlyle Lake, Illinois

AUTHORIZATION: FCA 1938, 1944, and 1958.

LOCATION AND DESCRIPTION: The project, completed in 1967, is located on Kaskaskia River, approximately 107 miles above its mouth, near community of Carlyle, Illinois. Portions of the project are situated in Clinton, Fayette, Bond, and Marion Counties. Carlyle Lake is the largest man-made lake in Illinois, with over 26,000 acres of water and 11,000 acres of public land. Lake provides flood control, water quality control and water supply to nearby communities; recreation; and fish and wildlife conservation. It is authorized to augment navigation flows downstream on the Kaskaskia River.

RECOVERY ACT ALLOCATIONS TO DATE: \$27,174,000

ALLOCATION FOR FY 2011: T: \$5,643,000

BUDGET FOR FY 2012: M: \$1,586,000 O: \$3,754,000 T: \$5,340,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FDR: \$2,173,000 - Routine operation and maintenance for flood risk management (FRM); critical dam maintenance, dam safety, water control and Real Estate costs for compliance management. Operate and maintain FRM features ensuring operational availability of critical FRM infrastructure.

Rec: \$2,705,000 - Routine operation and maintenance of recreation areas, facilities and programs, public health and safety, law enforcement agreements, use fees collection, and visitor center operations. Funds will be leveraged to maximize benefits regionally and nationally.

Hydro: N/A

ES: \$410,000 - Routine operation and maintenance of environmental stewardship program and features; environmental compliance, control of invasive species, cultural and natural resource protection, environmental stewardship on 37,543 acres of fee lands and waters, with 75 miles of boundary.

WS: \$52,000 - Annual recurring operation and maintenance costs associated with water supply. Funding will ensure availability of water supply meeting contract requirements.

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Clarence Cannon Dam and Mark Twain Lake, Missouri

AUTHORIZATION: FCA 1938 and 1962.

LOCATION AND DESCRIPTION: The project is located on the Salt River at Mile 63 above its confluence with the Mississippi River. This multi-purpose project provides flood risk management, hydropower, water supply, navigation storage, pollution abatement, fish and wildlife conservation, and recreation.

RECOVERY ACT ALLOCATIONS TO DATE: \$6,678,000

ALLOCATION FOR FY 2011: T: \$7,841,000

BUDGET FOR FY 2012: M: \$1,652,000 **O:** \$4,678,000 **T:** \$6,330,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$2,000 - Minimal annual recurring operations and maintenance activities associated with the re-regulation downstream channel, dam, reservoir, administration and shop buildings to assure availability of critical infrastructure and structural safety.

FDR: \$1,383,000 - Routine operations and maintenance for flood risk management; critical dam maintenance, FRM operations, dam safety, water control and RE cost for compliance management. Operate and maintain FRM features ensuring operational availability and reliability of critical FRM infrastructure.

Rec: \$2,676,000 - Routine operations and maintenance of recreation areas, facilities and programs; operations and minor maintenance of recreation facilities, visitor assistance, public health and safety, law enforcement agreements, public access, use fees collection, visitor center operations.

Hydro: \$1,549,000 - Routine operations and maintenance cost for remote operation of 58 megawatts. Funding will ensure meeting Southwestern Power Administration contract requirements. Sustain hydropower performance by increasing availability and reliability of generating units.

ES: \$614,000 - Routine operations and maintenance of environmental stewardship program and features; environmental compliance, control of invasive species, Federally-listed threatened and endangered species, cultural and natural resource protection, environmental stewardship. Meet minimum environmental stewardship responsibilities.

WS: \$106,000 - Annual recurring operations and maintenance cost and water supply agreement associated with water supply. Funding will help ensure availability of water supply meeting contract requirements.

OTHER INFORMATION: None.

Mississippi Valley Division

St. Louis District

Clarence Cannon Dam and
Mark Twain Lake, Missouri

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Coralville Lake (and Dam), Iowa

AUTHORIZATION: Flood Control Act of 1938

LOCATION AND DESCRIPTION: Coralville Lake is a multiple purpose project providing primary benefits in flood control and low-flow augmentation and secondary benefits in recreation, fish and wildlife management, forest management, and water quality improvement. The dam is located on the Iowa River just upstream of Iowa City. Conservation pool is 4,900 acres; and the flood control pool is 24,800 acres with 475,000 acre-feet of storage. Cumulative damages prevented since project's inception (1958) = \$135,295,000. The project includes 24,591 acres of fee title lands and there are 14 recreation area sites.

RECOVERY ACT ALLOCATIONS TO DATE: \$914,000

ALLOCATION FOR FY 2011: T: \$ 4,559,000

BUDGET FOR FY 2012: M: \$ 680,000 O: \$ 3,618,000 T: \$ 4,298,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FDR: \$2,446,000 – Routine operation and maintenance of the flood control works to reduce flooding downstream and related water control features. Funds would also provide for the Development of Dam Safety Program Implementation Actions to Reduce Probability and Consequences of Catastrophic Failure.

Rec: \$1,365,000 – Routine operation and maintenance of 11 recreation areas.

Hydro: N/A

ES: \$487,000 – Routine operations and maintenance to reduce immediate degradation and loss of natural resource base to include land and water acres, and continue cultural and historic property management.

WS: N/A

OTHER INFORMATION: None

Mississippi Valley Division

Rock Island District

Coralville Lake (and Dam),
Iowa

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: DeGray Lake, Arkansas

AUTHORIZATION: River and Harbor Act 1950, Section 101 and Water Supply Act of 1958, as amended by Federal Water Pollution Control Act of 1961.

LOCATION AND DESCRIPTION: DeGray Lake is located on the Caddo River in Clark and Hot Spring Counties, AR, northwest of Arkadelphia, AR. The project consists of an earth-fill dam, power plant and lake for hydropower generation, flood control, recreation, water supply, and natural resources management. Storage capacity of the lake is 495,100 acre-feet. The power plant has a generating capacity of 68,000 kilowatts. There is a re-regulating pool below the main dam for water supply storage and pumped-storage power generation. Eighteen campgrounds and recreation areas are located on the project. Annual public visitation to the project is approximately 3,000,000.

RECOVERY ACT ALLOCATIONS TO DATE: \$6,763,600

ALLOCATION FOR FY 2011: T: \$6,979,000

BUDGET FOR FY 2012: M: \$1,500,000 O: \$4,212,000 T: \$5,712,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$15,000 provides for joint activities for road repair at small dike.

FDR: \$350,000 provides for routine operation and maintenance of the dam including inspections and data collection.

Rec: \$2,879,000 provides routine operation and maintenance of recreation facilities.

Hydro: \$2,211,000 provides for routine operation and maintenance of the hydropower facilities.

ES: \$257,000 provides for routine management of cultural and natural resources from further degradation. This includes boundary surveillance for encroachments, outgrant and land use request evaluations, surveillance of lands and waters to monitor and control invasive species such as hydrilla and the gypsy moth, selective timber thinning, prescribed burning activities and the creation of fish and wildlife habitat.

WS: N/A

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Eau Galle River Lake, WI

AUTHORIZATION: FCAs of 1944 and 1958; Fish and Wildlife Coordination Act of 1958; RHA 1958; Water Supply Act of 1958

LOCATION AND DESCRIPTION: At and in vicinity of Spring Valley, WI, on Eau Galle River 30 miles above its mouth at Chippewa River, and its tributary, Mines Creek, which flows through the village. Spring Valley is about 45 miles east of St. Paul, MN, and 36 miles west of Eau Claire, WI.

The improvement under the authorization provided for a retarding reservoir and dam, including an uncontrolled spillway, on the Eau Galle River immediately upstream from Spring Valley with a discharge channel downstream from the dam, and remedial work on Mines Creek consisting of channel enlargement, low levees, and drop structures to reduce velocities prior to discharge into the Eau Galle River.

RECOVERY ACT ALLOCATIONS TO DATE: \$300,000

ALLOCATION FOR FY 2011: T: \$729,000

BUDGET FOR FY 2012: M: \$33,000 O: \$708,000 T: \$741,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FDR: \$419,000 – Operate, maintain, monitor dam and structures, complete water control data collection and analysis to meet minimum requirements for dam safety and provide design operation. Complete real estate compliance inspections, environment compliance (ERGO), and scheduled Bridge Inspection. Maintain critical instrumentation in the structure and monitor instrumentation data.

Rec: \$299,000 - Routine operation and maintenance of recreation facilities. Execute directed programs including Water Safety, Rec Fee Program, Visitor Assistance.

Hydro: N/A

ES: \$23,000 - Conduct operations and operational maintenance tasks required to complete environmental stewardship mission. This includes implementation of operational management plan recommendations for basic natural resource operational functions including conservation and protection of soil, water, wetland, forest, and vegetation.

WS: N/A

OTHER INFORMATION: None.

Mississippi Valley Division

St. Paul District

Eau Galle River Lake,
Wisconsin

14 February 2011

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O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Farm Creek Reservoirs, Illinois

AUTHORIZATION: Flood Control Act of 1944

LOCATION AND DESCRIPTION: The project includes two dry reservoirs (Fondulac and Farmdale) located on tributary streams to the Illinois Waterway upstream of Peoria, Illinois, providing flood control for East Peoria, Illinois.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

ALLOCATION FOR FY 2011: T: \$ 398,000

BUDGET FOR FY 2011: M: \$340,000 O: \$92,000 T: \$432,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FDR: \$432,000 – Routine maintenance of two dry reservoirs upstream of Peoria, Illinois. Funds would also provide for the Development of Dam Safety Program Implementation Actions to Reduce Probability and Consequences of Catastrophic Failure.

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Freshwater Bayou, LA

AUTHORIZATION: River and Harbor Act of 14 July 1960, Sec 101

LOCATION AND DESCRIPTION: The project is located in south central Louisiana. Provides for a navigation channel of 12' x 125' from the GIWW at Mile 161.2 west of Harvey Lock to the Gulf of Mexico through Freshwater Bayou, with increased width to 250 feet in the Gulf approach and a lock near the Gulf of Mexico 84 feet wide by 600 feet long and 16 feet deep. The project services the offshore petroleum industry supply boats and the commercial fishing industry.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

ALLOCATION FOR FY 2011: \$1,625,000

BUDGET FOR FY 2012: M: \$ 0 O: \$ 1,695,000 T: \$ 1,695,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$ 1,695,000 - Funds will be used for operation and minor maintenance of Freshwater Bayou Lock, hydrographic surveys, for the gathering of engineering data essential for monitoring the stability of Freshwater Bayou Lock, to change benchmarks and reset gauges from NGVD to NAVD.

FDR: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None

Mississippi Valley Division

New Orleans District

Freshwater Bayou,
Louisiana

14 February 2011

MVD-125

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Gulf Intracoastal Waterway, Louisiana

AUTHORIZATION: River and Harbor Act of 14 July 1946 and prior Acts

LOCATION AND DESCRIPTION: The Gulf Intracoastal Waterway (GIWW) crosses through all five states that comprise the Gulf of Mexico coastline, connecting Brownsville, Texas in the west to St. Mark, Florida in the east. The GIWW provides a protected passage for barge traffic to move vital commodities along the Gulf Coast.

RECOVERY ACT ALLOCATIONS TO DATE: \$2,248,000

ALLOCATION FOR FY 2011: \$19,031,000

BUDGET FOR FY 2012: M: \$19,924,000 O: \$10,651,000 T: \$30,575,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$30,224,000 - Funds will be used for dredging, hired labor maintenance on six GIWW locks, operating expenses for six GIWW locks, new spare gates at lock, hydrographic surveys, and to collect, manage, store and disseminate data from water level gauges.

FDR: \$300,000 – Reimbursement to City of New Orleans for operation of Algier's Pump Station #11 and to maintain Algiers Levees.

Rec: \$51,000 – Open parks to accomodate visitation and provide security patrols.

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Helena Harbor, AR

AUTHORIZATION: River and Harbor Act of 1960, Sec. 107, as amended

LOCATION AND DESCRIPTION: This harbor is located on the Mississippi River (mile 663.0) at Helena in Phillips County, Arkansas. This is a slack-water harbor used primarily for the export of agricultural goods. The project provides for maintenance of the navigation channel for year-round access to barge transportation for the existing facilities. The approved channel dimensions are 9 feet deep by 450 feet wide by 3,200 feet long. The local interest is the city of Helena, AR.

RECOVERY ACT ALLOCATIONS TO DATE: \$500,000

ALLOCATION FOR FY 2011: T: \$ 15,000

BUDGET FOR FY 2012: M: \$21,000 O: \$253,000 T: \$274,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$274,000 – Provides for performance of minimal surveys and includes labor for coordination and execution of the project. These funds would allow for the determination of current harbor conditions for navigation and maintenance requirements. Also, provides for annual dredging of the navigation channel to authorized project dimensions.

FDR: N/A.

Rec: N/A.

Hydro: N/A.

ES: N/A.

WS: N/A.

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Homme Lake and Dam, ND

AUTHORIZATION: FCA 1944

LOCATION AND DESCRIPTION: Dam is on South Branch of Park River about 4 miles upstream from Park River, ND, and 62.1 miles above the mouth of Park River. South, Middle, and North Branches, headwater streams of Park River, rise in Cavalier County in northeastern North Dakota and flow easterly to an almost common confluence near Grafton, ND, forming the main stream which flows easterly 35 miles to join Red River of the North about 35 miles south of the international boundary.

Homme Dam and Lake helps solve flood damage and water supply problems by providing limited protection from spring overflow and a dependable streamflow for water supply at Park River and Grafton. The dam is an earthfill structure 865 feet long, with a 5-foot diameter gate-controlled conduit under the dam and a concrete spillway 150 feet in length adjacent to the dam. The reservoir has a capacity of 3,650 acre-feet below spillway crest.

RECOVERY ACT ALLOCATIONS TO DATE: \$6,000

ALLOCATION FOR FY 2011: T: \$276,000

BUDGET FOR FY 2012: M: \$0 O: \$ 208,000 T: \$208,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FDR: \$196,000 - Required to operate, maintain, monitor dam and structures, complete water control data collection and analysis activities to meet minimum dam safety requirements and provide design operations. Maintain critical instrumentation in the structure and monitor instrumentation data.

Rec: N/A.

Hydro: N/A

ES: \$12,000 - Protect corps fee owned land and waters from encroachments and imminent loss of significant natural resources due to erosion, wildfire, pests, trespass, or human activity and or environmentally induced events as necessary to meet legal and regulatory requisites of the National Environmental Policy Act.

WS: N/A

OTHER INFORMATION: None.

Mississippi Valley Division

St. Paul District

Homme Lake and Dam,
North Dakota

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Houma Navigation Canal, LA

AUTHORIZATION: River and Harbor Act of 4 Mar 1915, Sec 5

LOCATION AND DESCRIPTION: The Houma Navigation Canal is located in Terrebonne Parish, Louisiana, and extends a distance of 38 miles from the GIWW in Houma, to the Gulf of Mexico. The authorized project dimensions are 15' x 150' from the GIWW to the Bar Channel. The Bar Channel has dimensions of 18' x 300'. The waterway services the oil and gas industry and commercial fishing activities.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

ALLOCATION FOR FY 2011: \$2,352,000

BUDGET FOR FY 2012: M: \$810,000 O: \$75,000 T: \$885,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$885,000 - Funds will be used for dredging, hydrographic surveys, preparation of Environmental Assessments for wetland development/restoration sites, change benchmarks and reset gauges from NGVD to NAVD. Provide right of entry for dredged material disposal areas, and collect, manage, store and disseminate data from water level gauges in support of the project.

FDR: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Dredged shoal material from the navigation channel can be used, within the Federal Standard, to beneficially restore Louisiana coastal wetlands and marshes.

Mississippi Valley Division

New Orleans District

Houma Navigation Canal,
Louisiana

14 February 2011

MVD-129

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Illinois Waterway (MVR Portion), IL

AUTHORIZATION: River and Harbor Acts 1927 and 1930

LOCATION AND DESCRIPTION: The project includes a total of 268 river miles of 9-foot commercial navigation channel from Chicago to LaGrange Lock and Dam, near Beardstown, Illinois; with 8 locks and 7 dams. The navigable portions of this river and the locks and dams that allow waterway traffic to move from one pool to another are integral parts of a regional, national, and international transportation network. The system is significant for certain key exports and the Nation's balance of trade. Recreation facilities include a Visitor Center at Starved Rock Lock and Dam.

RECOVERY ACT ALLOCATIONS TO DATE: \$2,304,000

ALLOCATION FOR FY 2011: T: \$ 32,238,000

BUDGET FOR FY 2012: M: \$12,323,000 O: \$19,614,000 T: \$31,937,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$31,194,000 – Funding provides for routine operations and maintenance of the lock and dams sites and the project office, critical fleet maintenance support service; dredging, water control, dredged material disposal, and dam safety.

FDR: N/A

Rec: \$626,000 – Routine operations and maintenance of the Visitor Center at Starved Rock Lock and Dam.

Hydro: N/A

ES: \$117,000 – Continue Endangered Species responsibilities from the USFWS as well as cultural/historical property management.

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Illinois Waterway (MVS Portion), IL & IN

AUTHORIZATION: River and Harbor Acts of 1927 and 1930.

LOCATION AND DESCRIPTION: The portion of the Illinois Waterway within the boundaries of the St. Louis District extending from the mouth of the Illinois River at Grafton, Illinois, to the tail water of LaGrange Lock and Dam at mile 80.15. The project maintains a nine-foot navigation channel by dredging/ channel patrol, water management, environmental compliance, and river engineering. The project has stewardship responsibility for 16,000 acres of public lands.

RECOVERY ACT ALLOCATIONS TO DATE: \$1,119,000

ALLOCATION FOR FY 2011: T: \$1,802,000

BUDGET FOR FY 2012: M: \$1,358,000 O: \$823,000 T: \$2,181,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$2,113,000 - Routine operations and maintenance for the lower 80 miles of navigation channel to include water management, water quality, surveys, channel patrol, and only the most critical dredging needs.

FDR: N/A

Rec: N/A

Hydro: N/A

ES: \$68,000 - Basic stewardship of 16,000 acres of land, management of outgrants, and coordination with environmental partners for conservation and restoration. Additionally, several flood damaged outgrant cabins will be removed and the land restored to public open space in coordination with Federal/State floodplain management goals. Funds will be utilized to meet minimum environmental stewardship responsibilities.

WS: N/A

OTHER INFORMATION: The Illinois Waterway accounts for approximately 50% of the commercial commodity tonnage shipped south through St. Louis Harbor. As such it is an important transportation corridor. Dredge planning and budgeting are complex due to river conditions and lack of channel training structures. The lower Illinois River project lands and waters contain important Federal and State managed wildlife areas and heavily utilized recreational features. This area includes approximately 16,000 acres of Corps-owned land, six state conservation areas, and one state park. There is high public demand for day use recreational opportunities within project boundaries. FY 2010 visitation is estimated at 150,000 visits, generating recreation economic benefits totaling an estimated \$3,432,000. Corps commitment to recreation has been limited to open space protection with minimal stewardship.

Mississippi Valley Division

St. Louis District

Illinois Waterway (MVS Portion),
Illinois and Indiana

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: J. Bennett Johnston Waterway, Mississippi River to Shreveport, Louisiana

AUTHORIZATION: River and Harbor Act 1968; Water Resources Development Act 1976; Supplemental Appropriations Act of 1984; Water Resources Development Act 1986, 1988, 1990, 1992, 1996; and Energy and Water Development Act 1994.

LOCATION AND DESCRIPTION: The project is located in central and northwest Louisiana and provides for 9- by 200-foot navigation extending about 236 miles from the Mississippi River through Old River and Red River to the vicinity of Shreveport, Louisiana. Five locks and adjacent dams provide a lift of approximately 141 feet. The project also provides for realigning the banks of the Red River from the Mississippi River to Shreveport by means of dredging, cutoffs, and training works and stabilizing its banks by means of revetments, dikes, and other methods.

RECOVERY ACT ALLOCATIONS TO DATE: \$5,637,200

ALLOCATION FY 2011: T: \$7,745,000

BUDGET FOR FY 2012: M: \$1,724,000 O: \$5,993,000 T: \$7,717,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$6,516,000 provides for operation of the lock and dams, some dredging, collection of data for water control and quality, inspections and real estate management.

FDR: N/A

Rec: \$1,177,000 provides for routine operation and maintenance of recreation facilities.

Hydro: N/A.

ES: \$24,000 provides for minimal protection and surveillance of mitigation of land and endangered species. Provides enhancement of habitat for neotropical migrant songbirds at project lock and dam sites. Activities include placement and maintenance of nesting boxes, habitat manipulation, and protection measures.

WS: N/A.

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Kaskaskia River Navigation, Illinois

AUTHORIZATION: Sec 101 of River and Harbor Act 1962, Sec 321 of Water Resources Development Act (WRDA) 1996 (Public Law (PL) 104-303), which added fish and wildlife and habitat restoration as project purposes, Sec 311 of WRDA 2000 (PL 106-541), which added recreation as a project purpose.

LOCATION AND DESCRIPTION: The project is located in south-central Illinois and empties into Mississippi River 118 miles above the Ohio River. The project consists of 36-mile navigation channel; one 600-foot lock; dam; dam with gated spillway; 2,901 acres fee and easement lands; 5,593 acres of flowage easement; three barge terminals; two marinas; four major recreation areas with boat ramps; and numerous minor access points. Authorized purposes are navigation, recreation, fish and wildlife, and habitat restoration.

RECOVERY ACT ALLOCATIONS TO DATE: \$18,168,000

ALLOCATION FOR FY 2011: T: \$2,176,000

BUDGET FOR FY 2012: M: \$0 O: \$1,539,000 T: \$1,539,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$1,230,000 - Provides for operation of the lock, operates the dam to maintain pool, provides limited water control operations and channel surveys.

FDR: N/A

Rec: \$188,000 - Provides for operation and maintenance of recreation facilities and visitor center, complying with environmental regulations. Limited public safety operations with cooperative law enforcement agreement and visitor assistance patrols on lands/waters of 36-mile channel during peak use periods. Funds will be leveraged to maximize benefits to region and nation.

Hydro: N/A

ES: \$121,000 - Supports recurring environmental stewardship activities that provide protection of natural resources on 2,901 acres of project lands. Contribute to legal mandates under the Endangered Species Act, National Environmental Policy Act, Fish and Wildlife Coordination Act, Clean Water Act and Migratory Bird Treaty.

WS: N/A

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Lac qui Parle Lakes, Minnesota River, MN

AUTHORIZATION: FCA 1936

LOCATION AND DESCRIPTION: Works covered by this project lie along Marsh Lake and Lac qui Parle and the Minnesota River between head of Marsh Lake and Granite Falls, MN. The project was substantially completed by the Works Progress Administration and transferred from the State of Minnesota to the United States in September 1950. The project includes a main dam at the outlet of Lac qui Parle Lakes designed to control the Marsh Lake Reservoir. There is also a dam and diversion channel near Watson designed to divert Chippewa River floodwaters into Lac qui Parle Reservoir. The Corps of Engineers, in order to complete the project, improved the channel from Lac qui Parle Dam to Granite Falls and modified the Lac qui Parle and Chippewa Dam structures to secure improved operation. The dams had been in operation by the State of Minnesota for several years prior to the transfer.

RECOVERY ACT ALLOCATIONS TO DATE: \$135,000

ALLOCATION FOR FY 2011: T: \$677,000

BUDGET FOR FY 2012: M: \$67,000 O: \$544,000 T: \$611,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FDR: \$533,000 – Required to provide dam operations, maintenance, monitoring, and water control data collection and analysis necessary to meet minimum requirements for dam safety and provide design operation. Snag and clear 43.1 miles of the Minnesota River below Lac qui Parle Dam to Granite Falls, MN as mandated by the 1936 Flood Control Act. Maintain and monitor instrumentation equipment and data in structures.

Rec: \$53,000 – Routine operation and maintenance of recreation/public use facilities; execute all directed programs, i.e. Visitor Assistance, Water Safety.

Hydro: N/A

ES: \$25,000 – Support program to maintain and monitor habitat conditions in critical prairie pothole region, support North American Waterfowl Management Plan agreements and coordinate reservoir operations with Minnesota DNR and U.S. Fish and Wildlife Service. Protect Corps fee owned land and waters from encroachments and imminent loss of significant natural resources due to erosion, wildfire, pests, trespass, or human activity and/or environmentally induced events as necessary to meet legal and regulatory requisites of the National Environmental Policy Act.

WS: N/A

OTHER INFORMATION: None.

Mississippi Valley Division

St. Paul District

Lac qui Parle Lakes,
Minnesota River, Minnesota

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Lake Ashtabula and Baldhill Dam, Sheyenne River, ND

AUTHORIZATION: FCA 1944

LOCATION AND DESCRIPTION: Baldhill Dam is on the Sheyenne River, 16 miles upstream from Valley City, ND, and about 271 miles above mouth. Sheyenne River rises in central North Dakota and flows 500 miles generally southeast to enter Red River of the North about 10 miles north of Fargo, ND.

Baldhill Dam was constructed to reduce flood damages, primarily at Valley City, and to alleviate water shortages in municipal and rural areas along the Sheyenne River and the Red River of the North. The dam was placed in operation in 1950. It is a 1,650 foot long compacted earth structure with concrete gravity control works 140 feet in length. Atop the control works are three 40 foot tainter gates. There are two 3 foot diameter conduits in the piers for low water control. The reservoir, Lake Ashtabula, has a capacity of 68,600 acre feet at normal pool level. It has prevented flood damages and improved streamflow in the Sheyenne and Red Rivers. The effectiveness of this project was demonstrated during the 1950, 1969, 1975, 1978, 1979, and 1989 floods.

RECOVERY ACT ALLOCATIONS TO DATE: \$1,111,000

ALLOCATION FOR FY 2011: T: \$1,424,000

BUDGET FOR FY 2012: M: \$19,000 O: \$1,230,000 T: \$1,249,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FDR: \$776,000 - Required to operate, maintain and monitor dam and structures, meet minimum requirements for dam safety and provide design operation. Monitor the boundaries both fee and easement. Maintain critical instrumentation in the structure and monitor instrumentation data.

Rec: \$320,000 - Routine operation and maintenance of recreation facilities. Execute directed programs including Water Safety, Rec Fee Program, Visitor Assistance, operate Visitor Center, fund Law Enforcement contract.

Hydro: N/A

ES: \$153,000 - Protect Corps fee owned land and waters from encroachments and imminent loss of significant natural resources due to erosion, wildfire, pests, trespass, or human activity and/or environmentally induced events as necessary to meet legal and regulatory requisites of the National Environmental Policy Act. Implement Shoreline Mgt Plan for over 200 structures and noxious weed control program on project lands to comply with state law.

WS: N/A

OTHER INFORMATION: The project provides limited protection from floods downstream from the dam. It also provides sufficient water flow during dry periods to meet water supply needs of municipalities and rural areas along the Sheyenne River and the Red River downstream from the mouth of the Sheyenne River. A diversion structure and pipeline constructed by the city was used by Fargo as the principal source of water for several months during the winter of 1976-1977 when the Red River of the North went dry.

Mississippi Valley Division

St. Paul District

Lake Ashtabula and Baldhill Dam,
Sheyenne River, North Dakota

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Lake Shelbyville, Illinois

AUTHORIZATION: Flood Control Acts of 1944 and 1958

LOCATION AND DESCRIPTION: The project provides flood control, water supply, recreation, conservation of fish and wildlife, and water quality control and augments navigation flows downstream on the Kaskaskia River. The lake extends northeastward to approximately river mile 275 through Shelby, Moultrie, Douglas, and Coles Counties.

RECOVERY ACT ALLOCATIONS TO DATE: \$12,250,

ALLOCATION FOR FY 2011: T: \$5,512,000

BUDGET FOR FY 2012: M: \$3,016,000 O: \$3,849,000 T: \$6,865,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FDR: \$3,491,000 - Routine operation and maintenance for flood risk management; critical dam maintenance, FRM operations, dam safety, water control and RE cost for compliance management. Operate and maintain FRM features ensuring operational availability of critical FRM infrastructure and reduce backlog maintenance. Maintain FRM features, reducing risk of dam failure and assisting in ensuring operational availability of critical infrastructure. DSAC II

Rec: \$2,781,000 - Routine operation and maintenance of recreation areas, facilities and programs; operations and minor maintenance of recreation facilities, visitor assistance, public health and safety, law enforcement agreements, public access, use fees collection, visitor center operations.

Hydro: N/A

ES: \$541,000 - Routine operation and maintenance of environmental stewardship (ES) program and features; environmental compliance, control of invasive species, cultural and natural resource protection, ES.

WS: \$52,000 - Routine operation of water supply program; dam operations for water supply, reporting requirements, coordination with external and internal partners and stakeholders.

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Lake Traverse and Bois de Sioux River, SD and MN

AUTHORIZATION: FCA 1936

LOCATION AND DESCRIPTION: Works covered by this project lie along Lake Traverse and Bois de Sioux River between the upper end of Lake Traverse at Browns Valley, MN, and the mouth of Bois de Sioux River at Breckenridge, MN. The project terminates six miles south of Breckenridge (six miles upstream of the Bois de Sioux River mouth). Lake drains through river to Red River of the North, and the two waters form a portion of the boundary between State of Minnesota and South Dakota.

The Lake Traverse and Bois de Sioux River project was completed in 1948. It provided for use of Lake Traverse as a flood control and water conservation reservoir and for channel improvement in the river below the lake. The main structure consists of a 14,500 foot earth dam and a concrete control structure at the north end of Lake Traverse near White Rock, South Dakota. A secondary control structure at Reservation Highway near Wheaton permits control of the upper section of the reservoir at a slightly higher elevation. A 5,000 foot embankment at the south end of Lake Traverse to protect Browns Valley and channel improvement for 24 miles below the main dam completed the project. The area is popular for waterfowl hunting and is used extensively for fishing, boating, swimming, and other activities. Access points, parking areas, boat landings, launching ramps and a swimming beach have been made available.

RECOVERY ACT ALLOCATIONS TO DATE: \$7,000

ALLOCATION FOR FY 2011: T: \$656,000

BUDGET FOR FY 2012: M: \$0 O: \$554,000 T: \$554,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FDR: \$437,000 - Required to operate, maintain, monitor dam and structures, meet minimum requirements for dam safety and provide design operation. Complete Real Estate compliance inspections, monitor use of fee and easement lands. Maintain critical instrumentation in the structure and monitor instrumentation data.

Rec: \$60,000 - Routine operation and maintenance of recreation/public use facilities. Execute all directed programs, i.e. Water Safety, Visitor Assistance.

Hydro: N/A

ES: \$57,000 - Protect Corps owned fee land and waters from encroachments and imminent loss of significant natural resources due to erosion, wildfire, pests, trespass, or human activity and or environmentally induced events.

WS: N/A

OTHER INFORMATION: None.

Mississippi Valley Division

St. Paul District

Lake Traverse and Bois de Sioux River,
South Dakota and Minnesota

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Mermentau River, LA

AUTHORIZATION: R&H Act of 26 June 1934 and prior Acts, Ch. 756

LOCATION AND DESCRIPTION: Mermentau River is a multi purpose project located in southwest Louisiana. Functions of the project include navigation, flood control, and prevention of saltwater intrusion. Structures on the project maintain a balance between agriculture and flood control. These structures also serve an important role to the fishing and oil industry, allowing access in and out of the Mermentau River basin.

RECOVERY ACT ALLOCATIONS TO DATE: \$6,039,000

ALLOCATION FOR FY 2011: \$2,008,000

BUDGET FOR FY 2012: M: \$0 O: \$1,250,000 T: \$1,250,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$1,250,000 - Funds will be used for operation of the Catfish Point and Schoner Bayou Control Structures.

FDR: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Minnesota River, MN

AUTHORIZATION: RHAs of 1892, 1909 and 1958

LOCATION AND DESCRIPTION: Minnesota River rises in Big Stone Lake, MN and SD, and flows southeasterly about 224 miles to Mankato, MN, thence northeasterly about 106 miles to join the Mississippi River opposite St. Paul, MN. The project consists of dredging and channel maintenance to provide channel of 9-foot depth below low control pool from the mouth at the Mississippi River confluence to river mile 14.7, one-half mile above the railway bridge at Savage, MN, and 4-foot depth from river mile 14.7 to 25.6 at Shakopee, MN.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

ALLOCATION FOR FY 2011: T: \$262,000

BUDGET FOR FY 2012: M: \$200,000 O: \$70,000 T: \$270,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$270,000 – Continue annual navigation channel surveys and channel maintenance which includes dredging and snag removal as needed. Funding requested is sufficient to meet minimum legal responsibilities for environmental compliance, water control, and water analysis. Maintenance of channel will ensure long-term availability in a cost-effective manner.

FDR: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: The Minnesota River, effectively the head of navigation for the Upper Mississippi River navigation project, is an essential component of the nation's transportation structure supporting commerce. This major agricultural tributary transports approximately one-fourth of the 16 million tons annually shipped in and out of the state of Minnesota. Several of the nation's largest agribusiness corporations (Cargill, Cenex, and Bunge) operate terminals on the Minnesota River and depend upon a reliable navigation system for movement of their commodities. The Minnesota Department of Transportation has indicated that this has an annual economic value in excess of \$362,000,000 translating to an outstanding cost benefit ratio.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Mississippi River, Baton Rouge to the Gulf of Mexico, LA

AUTHORIZATION: R&H Acts of 1945, Sec 2 and 23 Oct 1962, Sec 101; SAA of 1985, PL 99-88 and WRDA of 1986, Sec 201

LOCATION AND DESCRIPTION: The project currently provides a deep draft channel between Baton Rouge and the Gulf of Mexico in Southeast Louisiana. The 45-foot deep draft channel provides access to the largest port complex in the world.

RECOVERY ACT ALLOCATIONS TO DATE: \$57,804,000

ALLOCATION FOR FY 2011: \$62,969,000

BUDGET FOR FY 2012: M: \$66,790,000 O: \$1,210,000 T: \$68,000,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$68,000,000 Funds will be used for dredging reduced project dimensions from Baton Rouge to the Gulf of Mexico (Southwest Pass, New Orleans Harbor, Crossings between Baton Rouge and New Orleans), channel surveys, water management, environmental clearances, real estate activities and infrastructure repairs. This will allow the transit of deep-draft vessels carrying grain, coal, and other commodities to the Ports of South Louisiana, New Orleans, Baton Rouge, and Plaquemines (1st, 6th, 10th, and 14th leading ports in the nation) which collectively handle approximately 413,000,000 tons of cargo per year making it the largest port complex in the US.

FDR: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Mississippi River between Missouri River and Minneapolis (Upper), MN

AUTHORIZATION: RHA of 1930 (PL 71-520) and FCA of 1944 (PL 78-534)

LOCATION AND DESCRIPTION: The St. Paul District portion of the Upper Mississippi River extends from Minneapolis, MN to Guttenberg, IA and is located in or contiguous to the States of Minnesota, Wisconsin and Iowa. The St. Paul District operates and maintains 244 miles of 9-foot channel for navigation, 13 locks and dams, and 14 commercial or small boat harbors. The project includes a Corps developed and operated recreation area at Blackhawk Park located at river mile 670 below La Crosse, WI, and natural resource management for approximately 22,000 acres above normal pool elevation.

RECOVERY ACT ALLOCATIONS TO DATE: \$8,827,000

ALLOCATION FOR FY 2011: T: \$48,426,000

BUDGET FOR FY 2012: M: \$18,529,000 O: \$26,464,000 T: \$44,993,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$43,135,000 – Routine operations and maintenance activities necessary for navigation, critical fleet maintenance support service, and dredging with upland disposal. Funding requested is sufficient to meet minimum legal responsibilities for environmental compliance, water control, and water analysis. Maintenance of channel and lock and dam structures will ensure long-term availability in a cost-effective manner. Maintenance items include dredging of river channel by Dredge *Goetz* and mechanical dredging contractors; channel management structures; placement site maintenance; Reads Landing site unloading; and dewatering of locks to allow for winter maintenance activities.

FDR: N/A

Rec: \$889,000 - Routine operation and maintenance of recreation facilities. Execute all directed programs, i.e. water safety, fee program, visitor assistance, etc.

Hydro: N/A

ES: \$969,000 – Perform maintenance at various sites in 22,000-acre resource base including reforestation, island erosion control and restoration of historic dredge placement sites. Protect Corps fee owned land and waters from encroachments and imminent loss of significant natural resources due to erosion, wildfire, pests, trespass, or human activity and/or environmentally induced events as necessary to meet legal and regulatory requisites of the National Environmental Policy Act. Execute Shoreline Mgt Program for over 600 structures.

WS: N/A

OTHER INFORMATION: None.

Mississippi Valley Division

St. Paul District

Mississippi River between Missouri
River and Minneapolis (Upper), Minnesota

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Mississippi River between Missouri River and Minneapolis (MVR Portion), IL, IA, & MO

AUTHORIZATION: River and Harbor Acts 1927 and 1930

LOCATION AND DESCRIPTION: The project consists of a 314-river-mile reach of 9-foot commercial navigation channel from Guttenberg, Iowa, downstream to Saverton, Missouri. It includes 14 locks and 11 dams (L/Ds) at 12 sites from Lock 11 to Lock 22. The navigable portions of this river and the locks and dams that allow waterway traffic to move from one pool to another are integral parts of a regional, national, and international transportation network. Recreation facilities include 25 public recreation areas and the Visitor Center located at Lock & Dam 15.

RECOVERY ACT ALLOCATIONS TO DATE: \$1,989,000

ALLOCATION FOR FY 2011: T: \$53,692,000

BUDGET FOR FY 2012: M: \$18,944,000 O: \$30,804,000 T: \$49,748,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$46,165,000 – Funding provides for routine operations and maintenance at 12 lock and dam sites and the project office, critical fleet maintenance support service; dredging, dredged material disposal, water control, periodic inspection, and dam safety. Funds are also included for procuring new miter gates at Lock 18.

FDR: N/A

Rec: \$2,628,000 – Routine operation and maintenance of 25 public recreation areas and the Visitor Center located at Lock & Dam 15.

Hydro: N/A

ES: \$955,000 – Routine operation and maintenance to reduce degradation and loss of natural resource base assuring adaptive management on the 215,000 land and water acres o the project, continue Endangered Species responsibilities from USFWS, and continue cultural and historic property management.

WS: N/A

OTHER INFORMATION: None

Mississippi Valley Division

Rock Island District

Mississippi River between Missouri
River and Minneapolis
(MVR Portion), IL, IA, & MO

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Mississippi River Between Missouri River and Minneapolis (MVS Portion), MN (Upper River)

AUTHORIZATION: Rivers and Harbors Act of 1930, as amended by Public Resolution No. 10 (1932).

LOCATION AND DESCRIPTION: Project area extends from the mouth of the Missouri River at St. Louis upstream to Lock and Dam 22 tail water, includes 105 miles of river and 70,000 acres of public lands. Project provides a nine-foot navigation channel via a system of locks and dams; regulating works; dike and revetment; dredging; environmental compliance/stewardship, and recreational opportunities.

RECOVERY ACT ALLOCATIONS TO DATE: \$25,449,000

ALLOCATION FOR FY 2011: T: \$21,581,000

BUDGET FOR FY 2012: M: \$15,995,000 O: \$7,587,000 T: \$23,582,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$21,440,000 - Operate and maintain project, including operation of Locks and Dams 24, 25, and Mel Price, navigation channel maintenance. Critical Repair of scour holes near face of dam at Lock and Dam No.24.

FDR: N/A

Rec: \$1,231,000 - Operate and maintain 46 recreational access areas, the National Great Rivers Museum, and numerous outreach/educational programs. Remove high water debris in recreational areas; construct Eagle Viewing Platform (Lock 25); construct walkway connections and shelter repairs through cost share with City of Clarksville; open Water Trail segment in Pool 26.

Hydro: N/A

ES: \$911,000 - Basic stewardship of 70,000 acres of land, management of outgrants, and coordination with environmental partners for conservation and restoration. Additionally, flood damaged outgrant cabins and one terminated marina lease area will be restored to public open space in coordination with Federal/State floodplain management goals.

WS: N/A

OTHER INFORMATION: Commercial tonnage passing through project in FY 2010 was 62,820,000 tons. Unscheduled closures can cost the regional economy up to \$2.8M per day. FY 2010 project visitation is estimated at 3,500,000 visitors, generating recreation economic benefits estimated at \$82,538,000. The National Great Rivers Museum hosted 65,727 visitors through the end of June of FY 2010 and continues to show a steady increase over 6 years of operations.

Mississippi Valley Division

St Louis District

Mississippi River between Missouri
River and Minneapolis (MVS Portion),
Minneapolis (Upper River)

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Mississippi River Between the Ohio & Missouri Rivers (Reg Works), MO & IL (Lower River)

AUTHORIZATION: River and Harbor Acts of 1910, 1927, and 1930 as amended by the River and Harbor Acts of 1945 and 1958.

LOCATION AND DESCRIPTION: Project responsibility extends from the mouth of the Ohio River to the Missouri River at the northern boundary of the City of St. Louis including 195 miles of river and 10,000 acres of public land. Project provides nine-foot navigation channel with a lateral canal/Locks 27 at Chain of Rocks, fixed crest rock dam, channel maintenance, dredging, and environmental compliance. Project has environmental stewardship responsibility as well as land- and water-based recreational opportunities and flood risk management.

RECOVERY ACT ALLOCATIONS TO DATE: \$7,084,000

ALLOCATION FOR FY 2011: T: \$28,731,000

BUDGET FOR FY2012: M: \$19,545,000 O: \$6,026,000 T: \$25,571,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$22,193,000 - Operate and maintain project, including operation of Locks 27, open reach dredging, surveys, channel patrol, and maintenance of dikes and revetments.

FDR: \$384,000 - Operate and maintain sixteen miles of Chain of Rocks Federal Levee to include mowing, inspections, and reading of piezometers and operation of flood gates and pump stations.

Rec: \$360,000 - Operate and maintain six recreational access areas including maintenance of access roads.

Hydro: N/A

ES: \$2,634,000 - Basic stewardship of 10,000 acres of land, complex compliance requirements to include the Biological Opinion and Avoid and Minimize programs, management of outgrants, and coordination with environmental partners for conservation and restoration.

WA: N/A

OTHER INFORMATION: Over 107 million tons of commodities passed through Lower River project in FY 2009. A day of unscheduled closure at Locks 27 costs the regional economy \$3M. Chain of Rocks levee protects over 300,000 people and \$1.4 billion in property. FY 2010 project visitation (Lower River) is estimated at 627,000 visits, generating recreation economic benefit estimate at \$14,348,000 in visitor spending.

Mississippi Valley Division

St Louis District

Mississippi River between
the Ohio & Missouri Rivers
(Reg Works), MO & IL (Lower River)

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Mississippi River, Outlets at Venice, LA

AUTHORIZATION: River and Harbor Act of 1968, Sec 101

LOCATION AND DESCRIPTION: The project is located in southeastern Louisiana. It provides for additional outlets from the Mississippi River in the vicinity of Venice, Louisiana. Baptiste Collette and Tiger Passes are 14-foot deep by 150-foot wide channels with 16 feet deep by 250 feet bar channels.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

ALLOCATION FOR FY 2011: \$2,215,000

BUDGET FOR FY 2012: M: \$1,180,000 O: \$92,000 T: \$1,272,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$1,272,000 - Funding will be used for dredging, repair rock jetties, hydrographic surveys, preparation for Environmental Assessments for wetland development/restoration sites, to collect, manage, store and disseminate data from water level gages, to change benchmarks and reset gages from NGVD to NAVD, and right-of-entry for disposal areas for dredged material.

FDR: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Dredged shoal material from the navigation channel is used, within the Federal Standard, to beneficially restore Louisiana coastal barrier islands and nourish coastal wetlands and marshes.

Mississippi Valley Division

New Orleans District

Mississippi River,
Outlets at Venice, Louisiana

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Mouth of Yazoo River, Mississippi

AUTHORIZATION: River and Harbor Act 1960

LOCATION AND DESCRIPTION: The mouth of the Yazoo River starts at the Mississippi River and continues for 9.3 miles to the junction of Old Mississippi River and Yazoo Rivers at Vicksburg, Mississippi. The channel is 150 feet wide, and a minimum operating depth of 9 feet below the lowest water of record is maintained in the channel. This project's purpose is to provide access to the Yazoo River, the Upper Vicksburg Harbor, and the Vicksburg Harbor.

RECOVERY ACT ALLOCATIONS TO DATE: \$55,000

ALLOCATION FOR FY 2011: T: \$30,000

BUDGET FOR FY 2012: M: \$40,000 O: \$0 T: \$40,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$40,000 – Funding provides for channel condition surveys and maintenance dredging to maintain a nine foot draft channel.

FDR: N/A.

Rec: N/A.

Hydro: N/A.

ES: N/A.

WS: N/A.

OTHER INFORMATION: This is a high sediment river and is controlled by the Mississippi River.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Narrows Dam/Lake Greeson, Arkansas

AUTHORIZATION: Flood Control Act 1944.

LOCATION AND DESCRIPTION: Narrows Dam/Lake Greeson is located on the Little Missouri River in Pike County, AR, north of Murfreesboro, AR. The project consists of a concrete dam, power plant and lake for hydropower generation, flood control, recreation, water supply, and natural resources management. Storage capacity of the lake is 407,000 acre-feet. The power plant has a generating capacity of 25,500 kilowatts. There are 16 campgrounds and recreation areas on the project. Annual public visitation to the project is approximately 2,000,000.

RECOVERY ACT ALLOCATIONS TO DATE: \$1,845,000

ALLOCATION FOR FY 2011: T: \$4,874,000

BUDGET FOR FY 2012: M: \$691,000 O: \$3,651,000 T: \$4,342,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FDR: \$847,000 provides for routine operation and maintenance of the dam including inspections and data collection.

Rec: \$1,927,000 provides routine operation and maintenance of recreation facilities.

Hydro: \$ 1,341,000 provides routine operation and maintenance of the hydropower facilities.

ES: \$227,000 provides for management of cultural and natural resources. Enables the continuation of contracts or agreements for cultural resources surveys, testing, evaluation, analysis, or protection, and work to prevent or mitigate damage or deterioration to those characteristics or attributes that contribute to their significance. Also, the participation of environmental stewardship partnership agreements with the Arkansas Game and Fish Commission, including large scale establishment of fish habitat and structure, establishment of native aquatic vegetation, and seeding of exposed shoreline during periods of low water.

WS: N/A

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

PROJECT NAME: Orwell Lake (Otter Tail River), MN

AUTHORIZATION: RHA 1950; FCA 1950; FCA 1944; Fish and Wildlife Coordination Act of 1958

LOCATION AND DESCRIPTION: The Orwell Dam and Lake is located on the Otter Tail River near Fergus Falls, MN. The project was completed in 1953. It provides protection from floods during high water flows and, in conjunction with other reservoirs in the basin, provides increased flow during low water periods for water supply and pollution abatement at points in the Red River. The structure consists of an earth dam and concrete control works with a tainter gate. Most of the land, except for a part at the dam site, has been made available to the Minnesota Department of Natural Resources for wildlife conservation purposes. The area is managed for waterfowl and upland game and is open to public use for boating, fishing and other outdoor recreation.

RECOVERY ACT ALLOCATIONS TO DATE: \$678,000

ALLOCATION FOR FY 2011: T: \$462,000

BUDGET FOR FY 2012: M: \$6,000 O: \$403,000 T: \$409,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FDR: \$338,000 – Required to operate, maintain, monitor dam and structures, complete water control data collection and analysis activities necessary meet minimum requirements for dam safety and to provide design operation. Maintain critical instrumentation in the structure and monitor instrumentation data.

Rec: \$51,000 - Routine operation and maintenance of recreation/public use facilities. Execute all directed programs including Water Safety, Visitor Assistance.

Hydro: N/A

ES: \$20,000 - Protect Corps fee owned land and waters from encroachments and imminent loss of significant natural resources due to erosion, wildfire, pests, trespass, or human activity and/or environmentally induced events as necessary to meet legal and regulatory requisites of the National Environmental Policy Act.

WS: N/A

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Ouachita/Black Navigation Project, Red River to Camden, Arkansas and Louisiana

AUTHORIZATION: River and Harbor Act 1950 as modified by River and Harbor Act 1960.

LOCATION AND DESCRIPTION: The project for navigation on the Ouachita/Black Rivers extends 366 miles from the mouth of the Black River to Camden, Arkansas, and provides for a 9- by 100-foot navigation channel. The project also includes a diversion channel through Catahoula Lake near Jonesville, Louisiana, for ecological reasons.

RECOVERY ACT ALLOCATIONS TO DATE: \$6,688,000

ALLOCATION FOR FY 2011: T: \$7,505,000

BUDGET FOR FY 2012: M: \$1,941,000 O: \$5,510,000 T: \$7,451,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$5,770,000 provides for operation of project and includes some dredging, collection of data for water control and quality, inspections and real estate management.

FDR: \$17,000 provides for real estate management of the project.

Rec: \$1,580,000 provides for minimal operation and maintenance for recreation facilities.

Hydro: N/A.

ES: \$84,000 provides for minimal natural resource management activities on the waterway including conservation and protection of soil, water, wetland, vegetation, waterfowl, fish, and wildlife.

WS: N/A.

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Pearl River, Mississippi and Louisiana

AUTHORIZATION: River and Harbor Act of 1935, as modified by River and Harbor Act of 1966

LOCATION AND DESCRIPTION: The Pearl River navigation project is a navigation channel on the Pearl River that originally extended 58 miles from the mouth of the Pearl River to the mouth of Bogalusa Creek at Bogalusa, Mississippi. The project consisted of three locks and three weirs that provided a channel with minimum depth of 7 feet and a minimum bottom width of 100 feet. The project was placed in a caretaker status in 1995 and has been maintained only for maintenance and safety needs.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

ALLOCATION FOR FY 2011: T: \$145,000

BUDGET FOR FY 2012: M: \$0 O: \$133,000 T: \$133,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$133,000 will provide for project to be maintained in caretaker status.

FDR: N/A.

Rec: N/A.

Hydro: N/A.

ES: N/A.

WS: N/A.

OTHER INFORMATION: An Initial Appraisal Report was prepared recommending deauthorization of the project. Locks are deteriorating and are potentially unsafe.

Mississippi Valley Division

Vicksburg District

Pearl River,
Mississippi & Louisiana

14 February 2011

MVD-150

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Red River Reservoir (Red Lake-Clearwater River), Minnesota

AUTHORIZATION: FCA 1944

LOCATION AND DESCRIPTION: 4.5 miles east of the west boundary of the Red Lake Indian Reservation in northwest Minnesota. The Flood Control Act of 1944 authorized improvements on the Red Lake-Clearwater River. Project features included about 27.5 miles of clearing, straightening, and enlarging of the Red Lake River channel between High Landing and a point 4.5 miles east of the west boundary of the Red Lake Indian Reservation. At that point a small concrete dam was built to restore the marshes for wildlife in the reservation between that dam and a point some three miles below the outlet of Red Lake. Also included were alterations of the 1931 existing control stop-log structure built by the Indian Service (Bureau of Indian Affairs) at the outlet of Lower Red Lake. Operation of Red Lake Dam was assumed by the Corps on 1 April 1951.

RECOVERY ACT ALLOCATIONS TO DATE: \$1,200,000

ALLOCATION FOR FY 2011: T: \$233,000

BUDGET FOR FY 2012: M: \$29,000 O: \$134,000 T: \$163,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FDR: \$134,000 – Normal routine recurring dam and structure operations, maintenance, monitoring, and complete water control data collection and analysis operations necessary to meet minimum requirements for dam safety and provide design operation. Perform minor cyclical maintenance to dam and structures to maintain integrity of structure components.

Rec: N/A

Hydro: N/A

ES: \$29,000 – Monitor fish passage operations on structure installed in 2010-2011. Protect fee owned lands and waters from encroachments and imminent loss of significant natural resources due to erosion, wildfire, pests, trespass, or human activity and/or environmentally induced events as necessary to meet legal and regulatory requisites of the National Environmental Policy Act.

WS: N/A

OTHER INFORMATION: A contract was awarded in December 2009 with ARRA funds for construction of the Red Lake Dam Fish Passage that will allow the tribal Department of Natural Resources (DNR) to monitor and manage the walleye migration from the Red Lake River to Red Lake and vice versa.

Mississippi Valley Division

St. Paul District

Red River Reservoir (Red Lake-Clearwater River), Minnesota

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Red Rock Dam and Lake Red Rock, Iowa

AUTHORIZATION: Flood Control Act of 1938, Public Law 75-761

LOCATION AND DESCRIPTION: Lake Red Rock is a multiple purpose project providing primary benefits in flood control and low-flow augmentation and secondary benefits in recreation, fish and wildlife management, forest management, and water quality improvement. The dam is located on the Des Moines River southeast of Des Moines, Iowa. Conservation pool is 15,600 acres which makes it Iowa's largest lake; and the storage volume is 1,750,400 acre-feet at flood pool level. Cumulative damages prevented since project's inception in (1969) = \$536,634,000. The project includes 50,300 acres of fee title lands and there are 11 recreation area sites.

RECOVERY ACT ALLOCATIONS TO DATE: \$835,000

ALLOCATION FOR FY 2011: T: \$ 8,135,000

BUDGET FOR FY 2012: M: \$854,000 O: \$3,785,000 T: \$4,639,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FDR: \$2,884,000 – Routine operation and maintenance of the flood control works to reduce flooding downstream and related water control features. Funds would also provide for the Development of Dam Safety Program Implementation Actions to Reduce Probability and Consequences of Catastrophic Failure.

Rec: \$1,392,000 – Routine operation and maintenance of 11 recreation areas.

Hydro: N/A

ES: \$363,000 – Routine operation and maintenance to reduce immediate degradation and loss of natural resource base to include land and water acres, as well as continue cultural and historic property management.

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Removal of Aquatic Growth, LA

AUTHORIZATION: River and Harbor Act of 1958

LOCATION AND DESCRIPTION: The project provides for annual recurring maintenance control of water hyacinth and other aquatic vegetation in federal waterways and feeder water-bodies throughout south Louisiana. The project is required to maintain navigation for the shipping industry, the oil and gas industry, commercial fisheries and recreational users. Aquatic growth can also affect flood control and lock operations.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

ALLOCATION FOR FY 2011: \$1,410,000

BUDGET FOR FY 2012: M: \$0 O: \$200,000 T: \$200,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$200,000 - Funds will be used to monitor the growth of water hyacinth, alligator weed, common salvinia and other noxious aquatic plants within District navigable waterways, to work with State applicators to identify and treat specific point sources.

FDR: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Rend Lake, Illinois

AUTHORIZATION: Flood Control Act 1962

LOCATION AND DESCRIPTION: The project is located near Benton, Illinois, in Franklin and Jefferson Counties. The project provides flood control, water supply, recreation, and conservation of fish and wildlife. The earth fill dam with an un-gated main and auxiliary spillway provides the necessary features to create Rend Lake and support the project's purposes. The earth dam is located on the Big Muddy River at mile 103.7 and two sub-impoundment dams are located on the upper arms of the lake.

RECOVERY ACT ALLOCATIONS TO DATE: \$26,231,000

ALLOCATION FOR FY 2011: T: \$5,702,000

BUDGET FOR FY 2012: M: \$1,009,000 O: \$4,427,000 T: \$5,436,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FDR: \$2,160,000 - Provides routine operation and maintenance costs of the earth embankment dam, 18,900 acre reservoir, monitoring of two sub-impoundment dams, 10 breakwaters, and maintenance and administration buildings to accomplish FRM mission in the Big Muddy Watershed. Funding provides for the structural safety and operational adequacy of the 10,600 foot main dam, 435 foot spillway, 800 foot auxiliary spillway, stilling basin and appurtenant structures. DSAC IV.

Rec: \$2,630,000 - Routine operation and maintenances activities associated with recreation areas and recreation facilities at 15 federal recreation areas.

Hydro: N/A

ES: \$594,000 - Routine operation and maintenance costs for environmental stewardship activities that contribute to our legal mandates under Endangered Species Act, Forest Cover Act, National Environmental Protection Act, Fish and Wildlife Coordination Act, Clean Water Act and the Migratory Bird Treaty Act.

WS: \$52,000 - Routine operation costs associated with the water supply functions which provide 109,000 acre feet of storage.

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Reservoirs at Headwaters of Mississippi River, MN

AUTHORIZATION: RHAs of 1880, 1882 and 1958; FCAs of 1944 and 1958; Water Supply Act of 1958, Fish and Wildlife Coordination Act of 1958; Federal Water Pollution Control Act Amendments of 1972

LOCATION AND DESCRIPTION: The Reservoirs at the Headwaters of the Mississippi River Project are located in north central Minnesota in Itasca, Beltrami, Hubbard, Aitkin, Cass, and Crow Wing Counties. Reservoirs include Winnibigoshish, Leech Lake, Pokegama, Sandy Lake, Pine River, and Gull Lake. The six dams were constructed or re-constructed between 1900 and 1913 for the purpose of aiding navigation by stabilizing water flow in the Mississippi River between St. Paul, Minnesota, and Prairie du Chien, Wisconsin. The project includes six Corps managed campgrounds and several day use areas serving approximately 1.7 million visitors annually. The project's water resource management impacts several communities, thousands of property owners and countless recreational users. Its natural resources are valued by resource agencies, industry and Native American communities.

RECOVERY ACT ALLOCATIONS TO DATE: \$4,809,000

ALLOCATION FOR FY 2011: T: \$4,381,000

BUDGET FOR FY 2012: M: \$ 77,000 O: \$3,280,000 T: \$ 3,357,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FDR: \$1,605,000 - Operate and maintain 6 dams and associated structures to meet minimum requirements for dam safety, instrumentation and environmental compliance and provide design operation. Complete Real Estate compliance inspection activities on all fee lands, monitor use of fee and easement properties.

Rec: \$1,706,000 - Routine operation and maintenance of recreation/public use facilities. Operate 6 fee camping areas separated geographically by over 100 miles. Execute all directed programs including Water Safety, Fee Program, Visitor Assistance.

Hydro: N/A

ES: \$46,000 - Conduct operations and operational maintenance tasks associated with managing the natural resource base. This includes implementation of operational management plan recommendations for basic natural resource operational functions including conservation and protection of soil water wetland forest and vegetation. This work is required by Flood Control Act of 1944 and the Fish and Wildlife Coordination Act.

WS: N/A

OTHER INFORMATION: Although they were authorized primarily for navigation, the reservoirs operate to reduce flood stages in the vicinity of Aitkin and to facilitate use of the area for recreational purposes and fish and wildlife conservation. The reservoirs are in the heart of a very popular tourist and resort area. On Gull, Leech, Sandy, Pokegama and Winnibigoshish Lakes, and at Pine River Lake, the Corps has placed facilities for swimming, boat launching, camping, picnicking and sanitation. The regulated outflow from the reservoirs contributes to improved water supply, pollution abatement and industrial development.

Mississippi Valley Division

St. Paul District

Reservoirs at Headwaters of
Mississippi River, Minnesota

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Saylorville Lake (and Dam), Iowa

AUTHORIZATION: Flood Control Act of 1958

LOCATION AND DESCRIPTION: Saylorville Lake is a multiple purpose project providing primary benefits in flood control and low-flow augmentation and secondary benefits in recreation, fish and wildlife management, forest management, and water quality improvement. The dam is located about 11 miles northwest of Des Moines, Iowa, on the Des Moines River. Conservation pool is 5,950 acres; with a storage volume of 586,000 acre-feet at flood pool level. Cumulative damages prevented since project's inception (1975) = \$180,026,000. The project includes 25,515 acres of fee title lands and there are 13 recreation area sites.

RECOVER ACT ALLOCATIONS TO DATE: \$3,847,000

ALLOCATION FOR FY 2011: T: \$ 5,003,000

BUDGET FOR FY 2012: M: \$906,000 O: \$4,369,000 T: \$5,275,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FDR: \$2,875,000 – Routine operation and maintenance of the flood control works to reduce flooding downstream and related water control features. Funds would also provide for the Development of Dam Safety Program Implementation Actions to Reduce Probability and Consequences of Catastrophic Failure.

Rec: \$1,897,000 – Routine operation and maintenance of 13 recreation areas.

Hydro: N/A

ES: \$503,000 – Routine operation and maintenance to reduce immediate degradation and loss of natural resource base to include land and water acres, as well as continue cultural and historic property management.

WS: N/A

OTHER INFORMATION: None

Mississippi Valley Division

Rock Island District

Saylorville Lake (and Dam),
Iowa

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Souris River Basin, ND

AUTHORIZATION: WRDA 1986 (PL 99-662)

LOCATION AND DESCRIPTION: On the Souris River in Ward, Renville, McHenry, and Bottineau Counties in northwestern North Dakota. The existing Lake Darling Dam is located about 20 miles northwest of Minot, North Dakota. The project also includes features at the communities of Sawyer and Velva and at various locations along the 358 mile U.S. portion of the Souris River.

The 1986 Water Resources Development Act (Public Law 99-662) authorized dam safety and flood control modifications to Lake Darling Dam and 7 other dams in the Upper Souris and J. Clark Salyer National Wildlife refuges. Associated facilities include a maintenance building at Lake Darling Dam and an electrified carp barrier at dam 357. Mitigation features for project include dikes and 4 pump stations at Upper Souris NWR and; raised and upgraded embankments for dams 326, 332 and 341 and a low flow structure for dam 320 at J. Clark Salyer NWR. The construction project was completed in 1998.

RECOVERY ACT ALLOCATIONS TO DATE: \$45,000

ALLOCATION FOR FY 2011: T: \$509,000

BUDGET FOR FY 2012: M: \$36,000 O: \$315,000 T: \$351,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FDR: \$351,000 – Operate, maintain, and monitor dam and meet minimum requirements for dam safety, instrumentation, periodic inspection and to provide design operation. Complete minor non-cyclical maintenance on Lake Darling Dam, 6 refuge dam structures, and 2 pumping plants.

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: A Memorandum of Understanding between the Department of the Interior (Fish and Wildlife Service) and the Department of the Army was formalized on June 2, 1989 establishing procedures, administration, cooperation and coordination between respective agencies for Construction, Operation and Maintenance, Rehabilitation and Replacement responsibilities for project flood control and mitigation features.

Mississippi Valley Division

St. Paul District

Souris River Basin,
North Dakota

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Wallace Lake Dam, Louisiana

AUTHORIZATION: Flood Control Act of 22 June 1936, H.D. 378, 74th Congress

LOCATION AND DESCRIPTION: Wallace Lake Dam is located on Cypress Bayou, a tributary of Bayou Pierre. The primary purpose of the project is flood control, with conservation and recreation as other benefits.

RECOVERY ACT ALLOCATIONS TO DATE: \$448,000

ALLOCATION FOR FY 2011: T: \$241,000

BUDGET FOR FY 2012: M: \$0 O: \$239,000 T: \$239,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A.

FDR: \$170,000 provides for routine operation and maintenance of the operations of dam, water control/quality analysis, collection of data and evaluation and real estate management.

Rec: \$69,000 provides for operation and maintenance of recreation facilities.

Hydro: N/A.

ES: N/A.

WS: N/A.

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Wolf River Harbor, TN

AUTHORIZATION: The National Industrial Recovery Act (NIRA) of 16 June 1933; modified by the Flood Control Act of 03 July 1958, J. D. 76/85/1.

LOCATION AND DESCRIPTION: This harbor is located on the Mississippi River (mile 737.0), near Memphis in Shelby County, TN. This is a slack-water harbor and is used primarily for the import of industrial materials. The project provides for a navigation channel 9 feet deep by 250 feet wide at low water from the mouth to Keel Avenue (mile 1.75) and 200 feet wide from Keel Avenue to mile 3.0. The local interest is the city of Memphis, TN.

RECOVERY ACT ALLOCATIONS TO DATE: \$653,000

ALLOCATION FOR FY 2011: T: \$ 180,000

BUDGET FOR FY 2012: M: \$39,000 O: \$70,000 T: \$109,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$109,000 – Provides for the performance of surveys and water data activities and minimum dredging requirements including labor for coordination and execution of the project.

FDR: N/A.

Rec: N/A.

Hydro: N/A.

ES: N/A.

WS: N/A.

OTHER INFORMATION: None.

MISSISSIPPI RIVER AND TRIBUTARIES

MISSISSIPPI RIVER AND TRIBUTARIES
JUSTIFICATION MATERIAL
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Justification of Estimates for Civil Works Activities
 Department of the Army, Corps of Engineers
 Fiscal Year 2012

SUMMARY MISSISSIPPI RIVER COMMISSION

Flood Control, Mississippi River and Tributaries, AR, IL, KY, LA, MO, MS, & TN

	<u>FY 2011</u> <u>President's Budget</u>	<u>FY 2012</u> <u>President's Budget</u>	<u>Increase</u> <u>or Decrease</u>
Investigations	\$ 846,000	\$ 600,000	\$- 246,000
Survey	846,000	600,000	- 246,000
Preconstruction Engineering and Design	0	0	0
Construction	85,290,000	77,950,000	- 7,340,000
Operation and Maintenance	153,864,000	131,450,000	-22,414,000
Less Reduction for Savings and Slippage	0	0	0
Less Reduction for Rescission	0	0	0
 GRAND TOTAL, MISSISSIPPI RIVER COMMISSION	 240,000,000	 210,000,000	 -30,000,000

FLOOD AND COASTAL STORM DAMAGE REDUCTION

INVESTIGATIONS

APPROPRIATION TITLE: Flood Control, Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO, TN - Investigations, Fiscal Year 2012

Study		Total Estimated Federal Cost \$	Allocation Prior To FY 2009 \$	Allocation for FY 2009 \$	Allocation for FY 2010 \$	Allocation for FY 2011 \$	Allocation Requested for FY 2012 \$	Additional to Complete After FY 2012 \$
Collection and Study of Basic Data	Annual Allocations	N/A	N/A	5,194,000	1,608,000	500,000	500,000	N/A
Memphis, Vicksburg, and New Orleans Districts	ARRA Allocations			3,824,000				
	Total Allocations			9,018,000				

Surveys, Gages, and Observations.

Fiscal Year 2011 funds are being used for the minimal collection of essential basic data which are subsequently used in the planning and design of flood control projects. The data collected under this activity are for authorized projects or units thereof. The data to be collected will consist of information on streamflow, rainfall, floods, and other items of related hydrologic nature.

Fiscal Year 2012 funds will be used for the collection of essential basic data which are subsequently used in the planning and design of flood control projects, The data to be collected will consist of information on streamflow, rainfall, floods, and other items of related hydrologic nature.

CONSTRUCTION

APPROPRIATION TITLE: Flood Control, Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO, and TN - Construction

PROJECT: Atchafalaya Basin, Louisiana (Continuing)

LOCATION: The project is located in south-central Louisiana below the latitude of Old River and west of and generally paralleling the Mississippi River. The Atchafalaya River flows through the middle of the basin.

DESCRIPTION: The plan of improvement consists of a leveed floodway about 15 miles wide and 110 miles long that extends generally from the latitude of Old River to the Gulf of Mexico. The upper half of the basin is divided by the leveed Atchafalaya River. The Morganza Floodway is to the east of the Atchafalaya River and has a capacity of 600,000 cubic feet per second, which is introduced into the floodway by a gated control structure. The West Atchafalaya Floodway, which is located to the west of the river, is placed into operation when the fuse plug sections are overtopped bringing flows from the river that will introduce 900,000 cubic feet per second into the lower basin. After passing through the floodways, the flood waters enter the Gulf of Mexico through the Lower Atchafalaya River at Morgan City and the Wax Lake Outlet channel constructed west of Patterson, Louisiana. The project is part of a system and all work is programmed.

AUTHORIZATION: Flood Control Acts of 1928, 1934, 1936, 1938, 1941, 1946, 1950, 1954.

REMAINING BENEFIT - REMAINING COST RATIO: 5.1 to 1 at 7 percent.

REMAINING BENEFIT-REMAINING COST RATIO: Validated Remaining Benefit-Remaining Cost Ratio not available.

TOTAL BENEFIT-COST RATIO: 3.4 to 1 at 7 percent. The benefit-cost ratio is based on all features which comprise the Main Stem system of the Mississippi River and Tributaries project.

INITIAL BENEFIT - COST RATIO: This project feature of the Main Stem system was authorized in Fiscal Year 1928 and initial construction funds were provided in Fiscal Year 1928. The authorized comprehensive review of the Mississippi River and Tributaries project, contained in House Document 308/88/2, as updated to reflect 1965 conditions and price levels, is considered to be the base estimate for the Main Stem system. The benefit-cost ratio for the Main Stem components computed for the base estimate was 7.9 to 1.

BASIS OF BENEFIT - COST RATIO: Benefits are from latest available evaluation approved in October 1979 at 1979 price levels. The latest comprehensive analysis was conducted in 1974. The 1979 analysis is the same as the 1974 analysis except that certain undocumented benefit categories were eliminated and 1979 prices were used.

Mississippi River Commission

New Orleans District

Atchafalaya Basin, LA

14 February 2011

MR&T-9

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST	STATUS (1 Jan 2011)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	\$1,938,400,000		Entire Project	96 Physical	TBD
Estimated Non-Federal Cost	\$ 11,600,000				
Cash Contributions	\$2,500,000				
Other Costs	9,100,000				
Total Estimated Project Cost	\$1,950,000,000				
Allocations to 30 September 2008	\$ 1,034,711,000				
Allocation for FY 2009	12,800,000				
Recovery Act Allocations to Date	8,101,000				
Allocation for FY 2010	11,511,000				
President's Budget for FY 2011	6,300,000				
Allocation for FY 2011	6,300,000				
Allocations through FY 2011	1,073,423,000	55			
Budget for FY 2012	6,300,000	56			
Programmed Balance to Complete after FY 2012	858,677,000				
Unprogrammed Balance to Complete after FY 2011	0				

Mississippi River Commission

New Orleans District

Atchafalaya Basin, LA

PHYSICAL DATA

Levees:

Average Height - 20 feet
Length - 449 miles

Relocations:

Roads - 15 miles
Railroads - 20 miles

Drainage Structures:

Pointe Coupee	2 gates, 10.5 by 15 feet
Melville	2 - 72-inch corrugated metal pipe with vertical lift gate
Darbonne	10-foot by 10-foot barrel with vertical lift gate
Bayou des Glaises	72-inch corrugated metal pipe with flap gate
Bayou Courtableau	2 weirs, 503 feet long
Brushy Bayou	5-foot by 6-foot barrel with vertical lift gate
Bayou Courtableau	5-barrel, each 10 feet by 15 feet with vertical lift gate
Wax Lake East	25 pipes, 5 feet in diameter with slide gates
Wax Lake West	15 pipes, 5 feet in diameter with slide gates

Lands and Damages:
289,212 acres

Pumping Stations:

Number - 15
Capacity - Minimum - 50 cubic feet per second
Maximum - 1,500 cubic feet per second
Average - 400 cubic feet per second

Bank Stabilization:

Length - 58 miles

Floodgates:

Charenton - Sector-gated, 45 feet wide
East Calumet - Sector-gated, 45 feet wide
West Calumet - Sector-gated, 45 feet wide

Channels:

Length: 147.1 miles

Locks:

Bayou Boeuf, 75 feet by 1,156 feet, earth chamber
Bayou Sorrel, 56 feet by 797 feet, earth chamber
Berwick, 45 feet by 300 feet, concrete chamber

Atchafalaya River Navigation:

New Channel-10.1 miles

Freshwater Control Structure (Planned):

Sherburne - dual 10-foot by 10-foot reinforced
concrete box culverts with gates
Henderson - dual 10-foot by 10-foot reinforced
concrete box culverts with gates

JUSTIFICATION: The Mississippi River below Morganza Floodway is capable of carrying 1,500,000 cubic feet per second without threatening the integrity of the levees along its banks which protect densely populated areas, highly developed agricultural lands, industries, and the City of New Orleans, as well as a number of communities. Studies indicate that the project flood against which the flood control protection works are designed could be of such magnitude that 3,030,000 cubic feet per second will pass the latitude of Old River. Since the Mississippi River below the Morganza Floodway can carry only one-half this amount, the other one-half must be diverted from the main channel. The diversion is made through the Old River Control Structure, the Old River Auxiliary Structure, and the Atchafalaya River, and through the Morganza and West Atchafalaya Floodways. In order to prevent diverted waters from spreading over the rich and highly developed agricultural lands within the Atchafalaya Basin, these rivers and floodways have been leveed to confine the diverted flow.

This floodway system is, for all practical purposes, a part of the main river system, in as much as the integrity of the main river system depends upon its utilization. Since this construction began, farms and industries have developed in the areas adjacent to the floodway assuming that they would receive protection. Therefore, overtopping or crevassing of the levees would cause far more damage than anticipated at the start of project construction. The main protection levees in the lower reaches are deficient because of consolidation of the soft underlying soils, especially those below the latitude of Krotz Springs, LA. Early construction of these levees to the approved grade is essential, not only for flood protection, but as a means of access for the movement of manpower and equipment to any spot threatened by floods.

The Atchafalaya Basin project is one of several Main Stem components, which together comprise the plan of improvement for the control of floods on the Mississippi River. The components are: Mississippi River Levees, Channel Improvement, South Bank Arkansas and South Bank Red River Levees, the Atchafalaya Basin, Atchafalaya Basin Floodway System, Old River, and a few miscellaneous items. Because the benefits of the Atchafalaya Basin derive from the way in which they operate together with the other Main Stem components when the Mississippi River floods, the benefit-cost ratio is a composite one that covers the entire plan.

The value of lands and improvements protected by the Main Stem System authorized works against the design flood is \$200.8 billion in 2010 dollars. This consists of 226,000 residential acres which include the City of New Orleans, 45,000 acres of commercial lands, 10 million acres of agricultural lands, and 6.5 million acres of woodland and marshland. The area subject to flooding by project flood assuming no protective works is 22.7 million acres. The area that will be provided complete protection by the completed project is 15.1 million acres.

The maximum flood of record was the 1927 flood which overflowed about 26,000 square miles, caused the deaths of 214 people, rendered 637,000 people temporarily homeless, and caused property damages of \$347.0 million. This would be equivalent to \$15.2 billion in damages in 2010 prices.

The next flood of magnitude was the 1973 flood which overflowed 16,875 square miles (10.8 million acres), caused the death of 28 people, and displaced approximately 45,300 persons. The deaths and displacements of persons would have been significantly higher without the project in place. Without Federal projects, approximately 19.8 million acres would have been inundated. Total damages with existing projects in operation were \$643 million (1973 price levels). Damages without projects would have been \$11.3 billion and total damages prevented by projects amounted to \$10.6 billion. Expressed in 2010 prices, damages without the projects would have been \$55.0 billion and damages prevented would have been \$51.9 billion.

The benefit-cost ratio was derived by measuring the total benefits credited to those Main Stem components against their total cost. Average annual remaining benefits for the composite of Main Stem features are as follows:

Annual Remaining Benefits	Amount @ 2.5 %	Amount @ 7%
Flood Control	\$ 1,015,854,680	\$ 404,698,550
Navigation	205,344,025	106,716,688
Area Redevelopment	1,800,283	1,546,618
Recreation	2,491,300	2,577,698
Total	\$ 1,225,490,288	\$ 515,539,554

FISCAL YEAR 2011: Current year funds are being used as follows:

Lands and Damages	\$ 5,000
Surveys and Layouts	50,000
Construction – Gaps	2,745,000
Planning, Engineering and Design	2,500,000
Construction Management	1,000,000
Total	\$ 6,300,000

FISCAL YEAR 2012: The requested amount will be applied as follows:

Lands and Damages	\$ 5,000
Surveys and Layouts	50,000
Levee Construction – West B Sale Gordy B	2,745,000
Planning, Engineering and Design	2,500,000
Construction Management	1,000,000
Total	\$ 6,300,000

Mississippi River Commission

New Orleans District

Atchafalaya Basin, LA

NON-FEDERAL COST: In accordance with the Flood Control Act of 15 May 1928, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation and Replacement Costs
Bear the administrative costs for furnishing rights-of-way for levee and levee drainage construction; purchase maintenance equipment; and perform miscellaneous levee work.	\$ 1,710,000	0
Agree to accept lands turned over to them under the provision of Section 4 of the Flood Control Act of 15 May 1928, and as provided in the Flood Control Act of 18 August 1941.	0	0
Bear costs for and maintain all flood control works after their completion, except controlling and regulating spillway structures, including special levees; maintenance includes normally such matters as cutting grass, removal of weeds, local drainage and minor repairs to the levees.	0	\$3,700,000
For the Upper Point Coupee Loop Area, provide an interior drainage system and comply with the applicable provisions of the Uniform Relocations Assistance and Real Property Acquisition Policies Act of 1970, PL 91-646, approved 2 January 1971, and comply with the provision of Section 221 of the Flood Control Act of 1970, PL 91-611.	7,390,000	0
The State of Louisiana, through the Department of Transportation and Development as the local sponsor, will provide a voluntary 25% cost share for the planning, design, and construction of the interim protection for floodproofing of riverfront businesses in Morgan City and Berwick.	2,500,000	0
Total Non-Federal Costs	\$11,600,000	\$3,700,000

Mississippi River Commission

New Orleans District

Atchafalaya Basin, LA

STATUS OF LOCAL COOPERATION: Necessary assurances for maintaining the project have been furnished by the Atchafalaya Basin Levee District; Red River, Atchafalaya and Bayou Boeuf Levee District; St. Mary Parish Government; Pointe Coupee Parish Police Jury; and the towns of Berwick and Morgan City, LA. These agencies are furnishing all requirements of local cooperation necessary for meeting present project schedules.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$1,938,000,000 is an increase of \$140,000,000 from the latest estimate (\$1,798,000,000) presented to Congress (FY 2011).

Item	Amount
Price Escalation on Construction Features	\$87,800,000
Post Contract Award and Other Estimating	52,200,000
Total	\$140,000,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement was filed with the Environmental Protection Agency on 20 August 1982. The final Environmental Impact Statement for the Upper Pointe Coupee Loop Area was filed with the Council on Environment Quality on 11 June 1976.

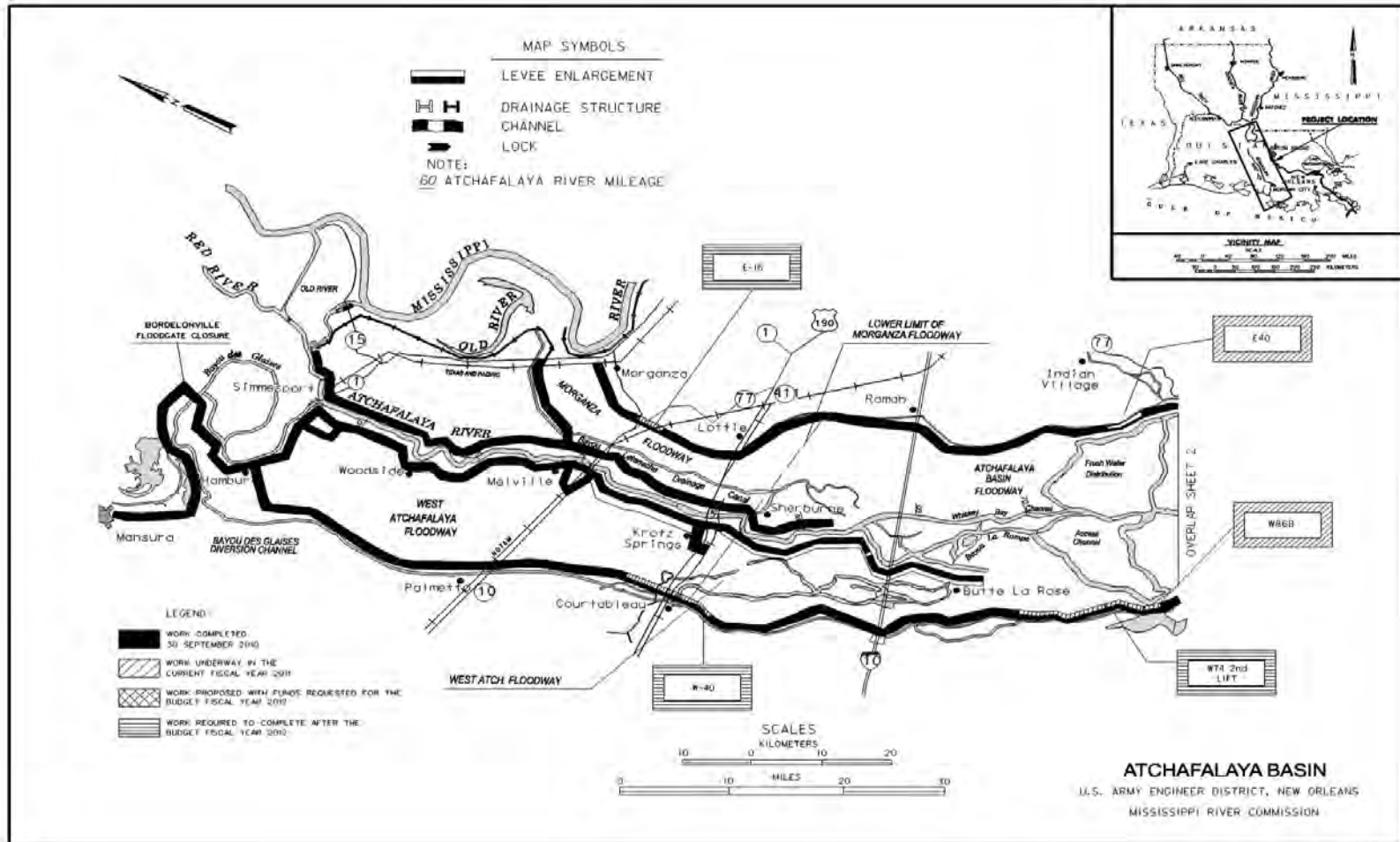
OTHER INFORMATION: Funds to initiate construction were appropriated in 1928.

Bayou Sorrel Lock is a component of the Mississippi River and Tributaries (MR&T), Atchafalaya Basin, Louisiana Project. The lock provides navigation access, while maintaining a continuous line of protection against the MR&T project design flood flow. The project flood flow line for the Atchafalaya Basin was modified in 1986 to the current elevation of 28.7 feet National Geodetic Vertical Datum (NGVD). In order to maintain the level of flood protection provided by the Atchafalaya Basin, Louisiana Project, the lock must be modified or replaced. The need to modify Bayou Sorrel Lock presents an opportunity to address increasing navigation concerns at this lock. Planning, engineering, and design of the modification or replacement for flood reduction benefits were delayed until the optimum navigation plan could be studied. The feasibility study was completed in November 2003 and approved in March 2004. The flood control portion is fully Federally funded and justified under the Mississippi River and Tributaries project.

Mississippi River Commission

New Orleans District

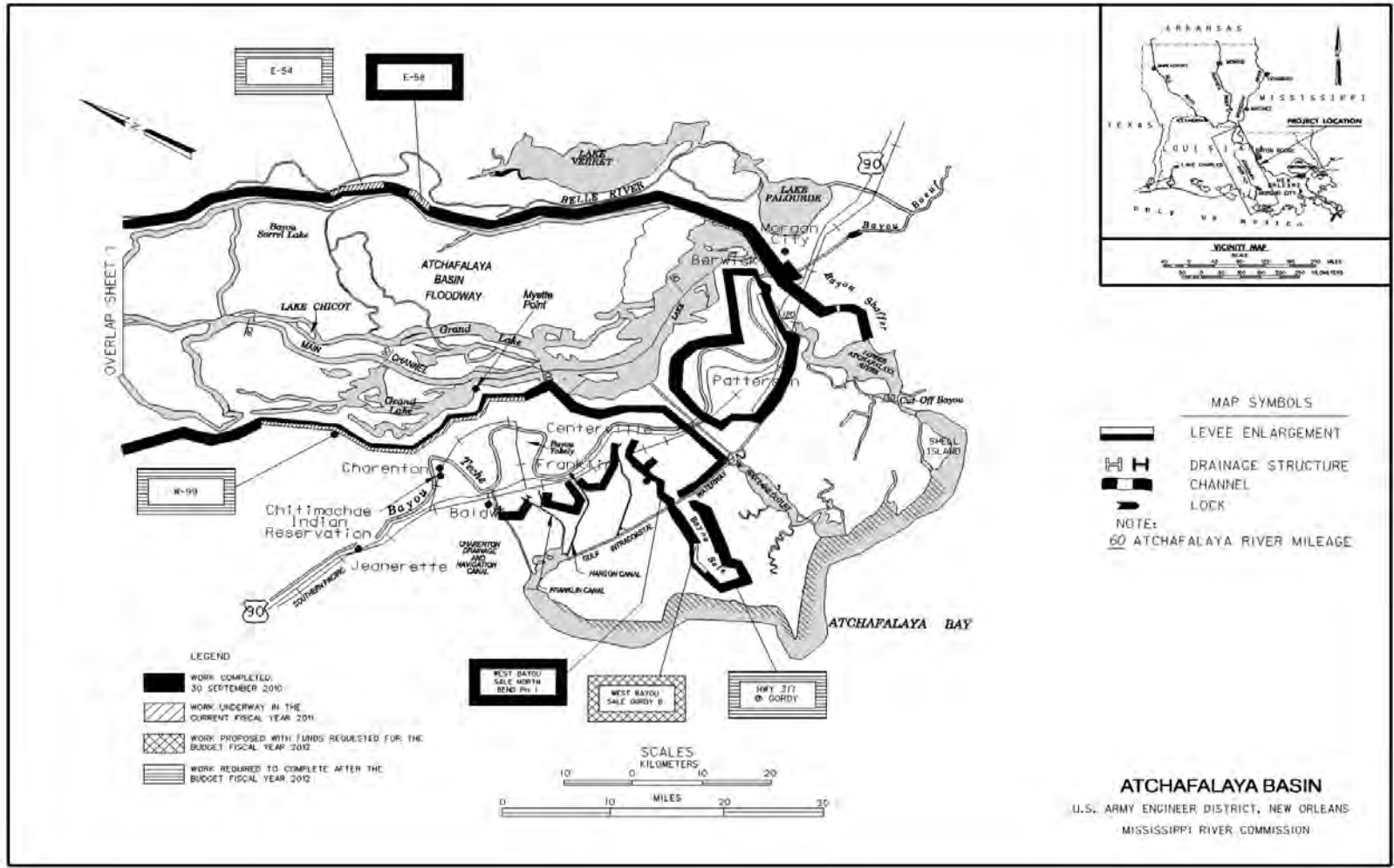
Atchafalaya Basin, LA



Mississippi River Commission

New Orleans District

Atchafalaya Basin, LA



SHEET 2 OF 2

APPROPRIATION TITLE: Flood Control, Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO and TN - Construction

PROJECT: Channel Improvement, Arkansas, Illinois, Kentucky, Louisiana, Mississippi, Missouri and Tennessee (Continuing)

LOCATION: The project is located in the Mississippi River and along its banks from the vicinity of Cairo, Illinois, to the Head of Passes, Louisiana, a distance of approximately 966 miles.

DESCRIPTION: The plan of improvement consists of stabilizing the banks of the river in a desirable alignment and obtaining the most efficient flow characteristics for it for flood control and navigation by means of revetments, dikes, foreshore protection, and improvement dredging. All work is programmed.

AUTHORIZATION: Flood Control Acts of 1928, 1936, 1938, 1941, 1944, 1962, 1965, 1966, and 1970.

REMAINING BENEFIT-REMAINING COST RATIO: Validated Remaining Benefit-Remaining Cost Ratio not available.

TOTAL BENEFIT-COST RATIO: 3.4 to 1 at 7 percent. The benefit-cost ratio is based on all features which comprise the Main Stem system of the Mississippi River and Tributaries project.

INITIAL BENEFIT-COST RATIO: This project feature of the Main Stem system was authorized in Fiscal Year 1928 and initial construction funds were provided in Fiscal Year 1928. The authorized comprehensive review of the Mississippi River and Tributaries project, contained in House Document 308/88/2, as updated to reflect 1965 conditions and price levels, is considered to be the base estimate for the Main Stem system. The benefit-cost ratio for the Main Stem components computed for the base estimate was 7.9 to 1.

BASIS OF BENEFIT-COST RATIO: Benefits are from the latest available evaluation approved in October 1979 at 1979 price levels. The latest comprehensive analysis was conducted in 1974. The 1979 analysis is the same as the 1974 analysis except that certain undocumented benefit categories were eliminated and 1979 prices were used.

Mississippi River Commission

Memphis, Vicksburg, and
New Orleans Districts

Channel Improvement, AR, IL
KY, LA, MS, MO, and TN

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST	STATUS (1 Jan 2011)	PCT Cmpl	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	\$3,967,000,000		Entire Project	93	TBD
Estimated Non-Federal Cost	1,860,000				
Cash Contributions	1,760,000				
Other Costs	100,000				
Total Estimated Project Cost	\$3,968,860,000				
					PHYSICAL DATA
Allocations to 30 September 2008	2,902,832,000		Lands and Damages		19,135 acres
Allocation for FY 2009	52,875,000		Revetments		1,097 miles
Allocation for FY 2010	46,102,000		Dikes		362 miles
Recovery Act Allocations to Date	31,067,000		Dredging		As Required
President's Budget for FY 2011	47,209,000		Foreshore Protection		160 miles
Allocation for FY 2011	45,709,000	1/	Pumping Station		1
Allocations through FY 2011	3,078,585,000				
Budget for FY 2012	45,570,000				
Programmed Balance to Complete After FY 2012	842,845,000	78	Total		525
Unprogrammed Balance to Complete After FY 2012	0	79			

1/ Reflects \$1,500,000 reallocated to the Channel Improvement maintenance project.

Mississippi River Commission

Memphis, Vicksburg, and
New Orleans Districts

Channel Improvement, AR, IL
KY, LA, MS, MO, and TN

JUSTIFICATION: The Channel Improvement Project is one of several Main Stem components, which together comprise the plan of improvement for the control of floods on the Mississippi River. The components are: Mississippi River Levees, Channel Improvement, South Bank Arkansas and South Bank Red River Levees, the Atchafalaya Basin, Atchafalaya Basin Floodway System, Old River, and a few miscellaneous items. Because the benefits of Channel Improvement derive from the way in which they operate together with the Main Stem components when the Mississippi River floods, the benefit-cost ratio is a composite one that covers the entire plan.

The Mississippi River, with a drainage area of about 1,245,000 square miles, has a wide range of flow, increasing from an approximate minimum of 90,000 cubic feet per second (675,000 gallons per second) to a maximum of 2,345,000 cubic feet per second (17,587,000 gallons per second) which occurred in 1927 at the latitude of Red River Landing. The project flood is 3,030,000 cubic feet per second (22,500,000 gallons per second). Part of the tremendous energy of this volume of flowing water is directed toward a relentless attack on the banks of the river, causing the unprotected banks to cave into the river. As this caving progresses, the attack becomes more direct, the bendway moves in toward the levee, and more sediment is placed in the river and deposited downstream in the form of a sandbar. This bar gradually builds out into the channel and deflects the river's attack to the opposite bank. As the cycle is repeated the river tends to meander and lengthen. Revetment is placed against the banks of the river at locations where mainline levees are being threatened with destruction or where unsatisfactory alignment and channel conditions are developing. Revetment serves a three-fold purpose in that the river is prevented from encroaching on the Main Stem levees, excess material is kept out of the stream, and a favorable channel alignment and depth are maintained. An objective of the plan is to preserve favorable alignments and efficient cross-sectional areas and to prevent the river from creating new meander patterns. In wide reaches of the river, dikes are used to contract the channel width so as to produce an efficient channel for navigation and to insure the flood carrying capacity of the river. Chutes and secondary channels are controlled for the same purpose. Improvement dredging is employed to assist the river in removing natural obstructions which deflect the current into undesirable patterns of flow and to assist in developing an efficient channel. Foreshore protection is utilized to preserve the integrity of the Mississippi River Levees from attack by erosion of the batture. Erosion of the batture leads to steep slopes which, when undermined, result in considerable loss of batture and possible failure of the levee.

The value of lands and improvements protected by the Main Stem System authorized works against the design flood is \$200.8 billion in 2010 dollars. This consists of 226,000 residential acres which include the City of New Orleans, 45,000 acres of commercial lands, 10 million acres of agricultural lands, and 6.5 million acres of woodland and marshland. The area subject to flooding by project flood assuming no protective works is 22.7 million acres. The area that will be provided complete protection by the completed project is 15.1 million acres.

The maximum flood of record was the 1927 flood which overflowed about 26,000 square miles, caused the deaths of 214 people, rendered 637,000 people temporarily homeless, and caused property damages of \$347.0 million. This would be equivalent to \$15.2 billion in damages in 2010 prices.

The next flood of magnitude was the 1973 flood which overflowed 16,875 square miles (10.8 million acres), caused the death of 28 people, and displaced approximately 45,300 persons. The deaths and displacements of persons would have been significantly higher without the project in place. Without Federal projects, approximately 19.8 million acres would have been inundated. Total damages with existing projects in operation were \$643 million (1973 price levels). Damages without projects would have been \$11.3 billion and total damages prevented by projects amounted to \$10.6 billion. Expressed in 2010 prices, damages without the projects would have been \$55.0 billion and damages prevented would have been \$51.9 billion.

Mississippi River Commission

Memphis, Vicksburg, and
New Orleans Districts

Channel Improvement, AR, IL
KY, LA, MS, MO, and TN

The benefit-cost ratio was derived by measuring the total benefits credited to those Main Stem components against their total cost. Average annual remaining benefits for the composite of Main Stem features are as follows:

Annual Remaining Benefits	Amount @ 2.5 %	Amount @ 7%
Flood Control	\$1,015,854,680	\$404,698,550
Navigation	205,344,025	106,716,688
Area Redevelopment	1,800,283	1,546,618
Recreation	2,491,300	2,577,698
Total	\$1,225,490,288	\$515,539,554

Mississippi River Commission

Memphis, Vicksburg, and
New Orleans Districts

Channel Improvement, AR, IL
KY, LA, MS, MO, and TN

FISCAL YEAR 2011: Current funds are being used as follows:

Revetments	\$32,500,000
Dikes	13,209,000
Total	\$45,709,000

The items of revetment work are:

Approximate length in feet:

Chute of Island 35, TN	1,100
Wolfe Island Bar, KY	700
Hickman Bar, KY	1,500
Arkansas City – Yellow Bend, AR	3,000
Hardscrabble, LA	2,500
Sixty Mile Point, LA	5,000
Reinforcement	8,350

Revetments: The planned program consists of items of work for which funds will be required as follows:

Lands and Damages	\$ 85,000
Construction of Revetments	25,560,500
Cultural Resources	25,000
Planning, Engineering, and Design	5,749,500
Construction Management	1,080,000
Total	\$32,500,000

Dikes: The planned dike work consists of the following items:

Randolph, TN and Shoofly Bar, MS	\$ 5,435,000
Victoria Bend, MS	4,500,000
Lands and Damages	50,000
Cultural Resources	30,000
Planning, Engineering, and Design	2,362,000
Construction Management	832,000
Total	\$13,209,000

Mississippi River Commission

Memphis, Vicksburg, and
New Orleans Districts

Channel Improvement, AR, IL
KY, LA, MS, MO, and TN

FISCAL YEAR 2012: The requested amount will be applied as follows:

Revetments	\$32,466,000
Dikes	13,104,000
Total	\$45,570,000

The items of revetment work are:

Approximate length in feet:

Obion-Tamm, TN	350
Ensley, TN	600
Old Town, AR	400
Island 40, TN	350
Grand Gulf, MS	2,500
Kings Pt. – Opposite Delta, MS (BSP)	2,000
Hardscrabble, LA	3,000
Pleasant Point, LA	5,000
English Turn, LA	2,000
Reinforcement	4,837

Revetments: The planned program consists of items of work for which funds will be required as follows:

Lands and Damages	\$ 100,000
Construction of Revetments	25,834,800
Cultural Resources	50,000
Planning, Engineering, and Design	5,881,200
Construction Management	600,000
Total	\$32,466,000

Mississippi River Commission

Memphis, Vicksburg, and
New Orleans Districts

Channel Improvement, AR, IL
KY, LA, MS, MO, and TN

FISCAL YEAR 2012 (Continued):

Dikes: The planned dike work consists of the following items:

Cat Island, AR	\$ 1,000,000
Picket, MS	1,000,000
Big Island, AR	2,580,000
Moore Island, MO	2,750,000
Racetrack Towhead, MS	3,400,000
Lands and Damages	40,000
Cultural Resources	30,000
Planning, Engineering, and Design	1,710,000
Construction Management	594,000
Total	\$13,104,000

NON-FEDERAL COST: In accordance with Section 4 of the Flood Control Act of 1944, as amended by Section 207 of the Flood Control Act of 1962, the non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation and Replacement Costs
Provide lands, easements, rights-of-way, and borrow and excavated or dredged material disposal area.	\$ 100,000	
Pay one-half of the separable costs allocated to recreation (except recreational navigation) and bear all costs of operation, maintenance, and replacement of recreation facilities.	1,760,000	\$237,000
Total Non-Federal Costs	\$1,860,000	\$237,000
Mississippi River Commission	Memphis, Vicksburg, and New Orleans Districts	Channel Improvement, AR, IL, KY, LA, MS, MO, and TN

STATUS OF LOCAL COOPERATION: Assurances furnished by the Missouri Department of Conservation for the Dorena Recreation Facility were accepted 27 August 1971; assurances furnished by the Tennessee Department of Conservation for the Richardson Landing Recreation Facility were accepted 3 September 1976; and assurances furnished by the City of Memphis, Tennessee, for Volunteer Bicentennial Park were accepted 11 September 1975. Assurances furnished by the City of Osceola, Arkansas, for Lake Neark, Arkansas, are embodied in the contract for cost sharing approved on 19 September 1982. A Local Cooperation Agreement for the Ed Jones Boat Ramp with the State of Tennessee was signed 27 October 1988. A Local Cooperation Agreement for the Shelby Forest Boat Ramp with the State of Tennessee was signed 11 October 1990. A Local Cooperation Agreement for the Dyersburg, Tennessee, Boat Ramp with the State of Tennessee was signed 11 July 1994.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$3,967,000,000 is a decrease of \$271,000,000 from the latest estimate (\$4,238,000,000) presented to Congress (FY 2011). This change includes the following items:

Item	Amount
Price Escalation on Construction Features	\$-285,345,000
Post Contract Award and Other Estimating Adjustments	16,000,000
Price Escalation on Real Estate	-1,655,000
Total	\$-271,000,000

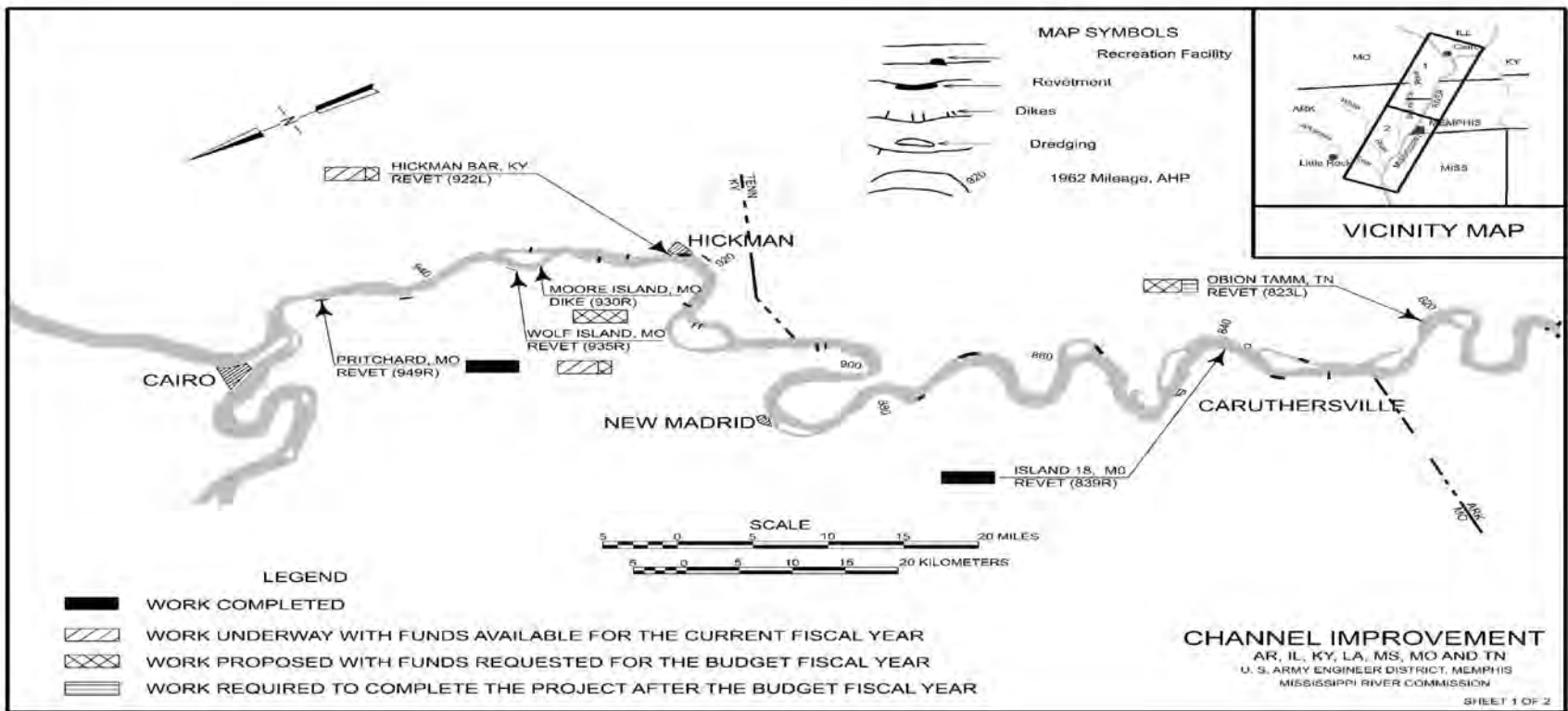
STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Final Environmental Impact Statement was filed with the Council on Environmental Quality on 16 April 1976.

OTHER INFORMATION: Initial construction funds were appropriated in Fiscal Year 1928.

Mississippi River Commission

Memphis, Vicksburg, and
New Orleans Districts

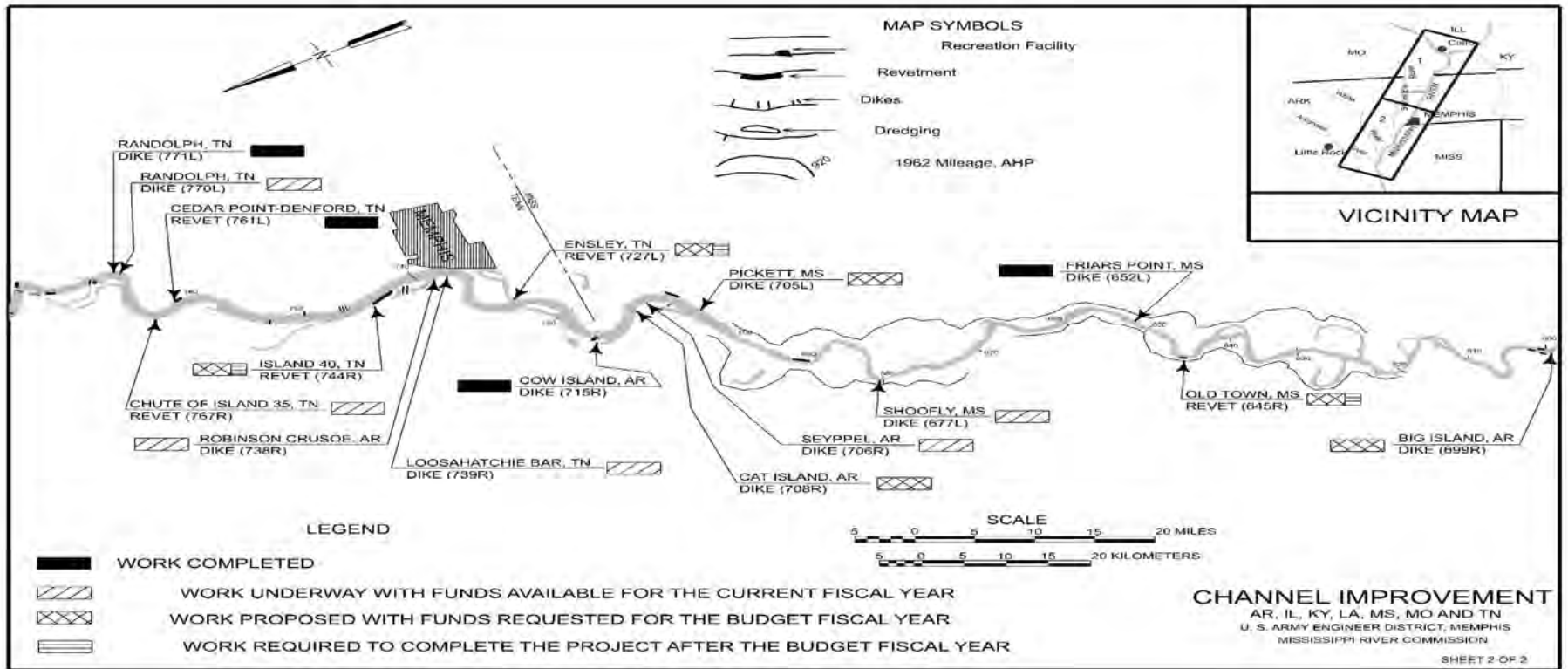
Channel Improvement, AR, IL
KY, LA, MS, MO, and TN

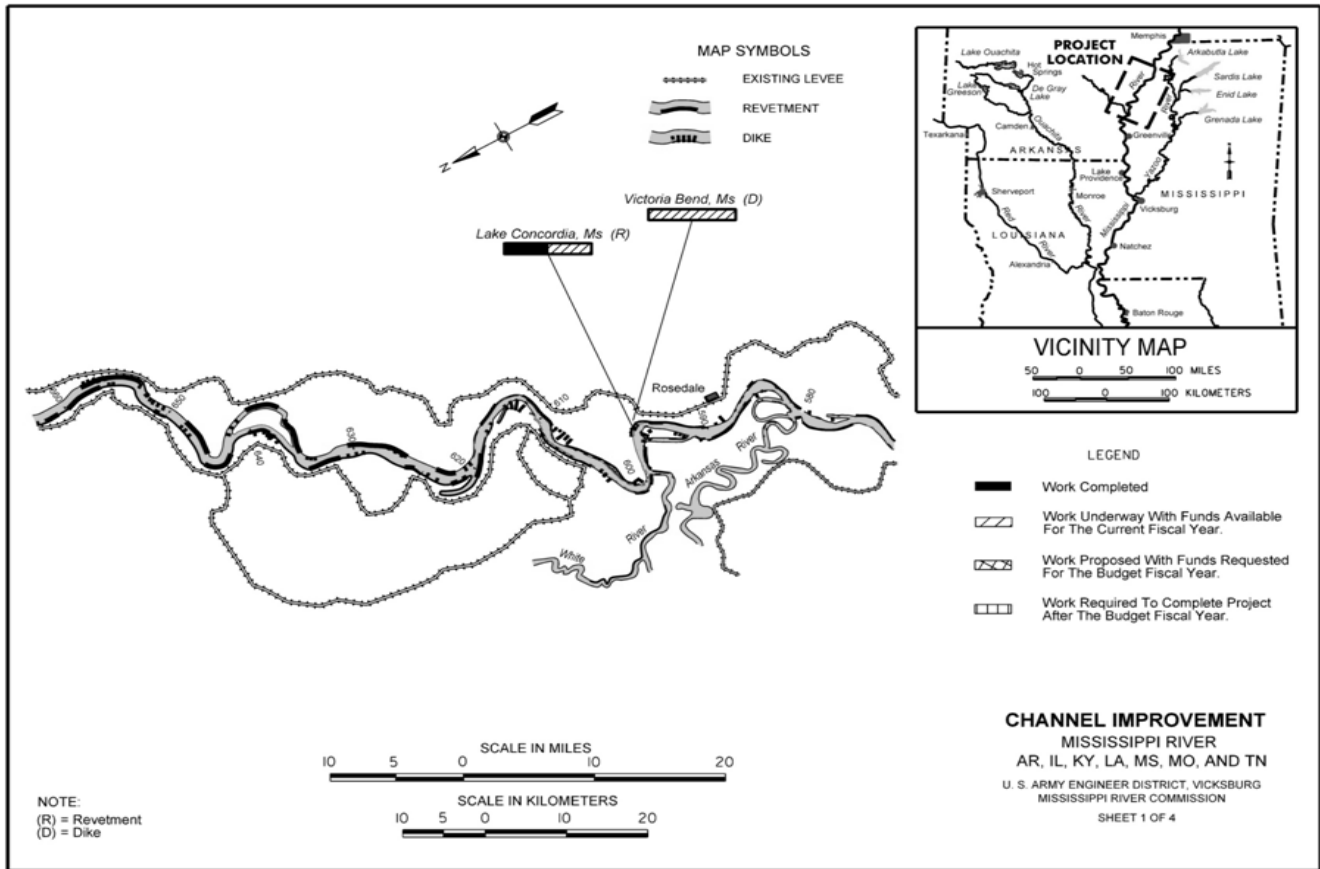


Mississippi River Commission

Memphis, Vicksburg, and
New Orleans Districts

Channel Improvement, AR, IL,
KY, LA, MS, MO, and TN

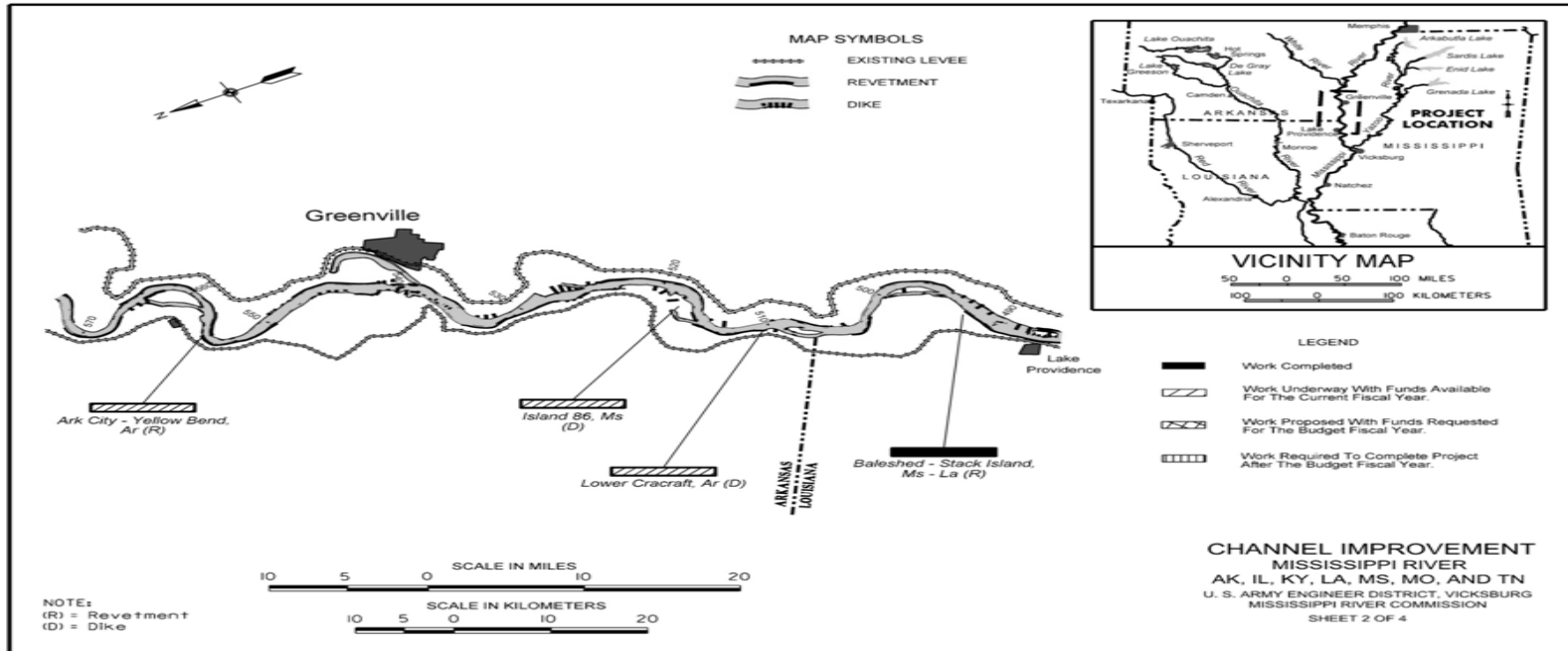


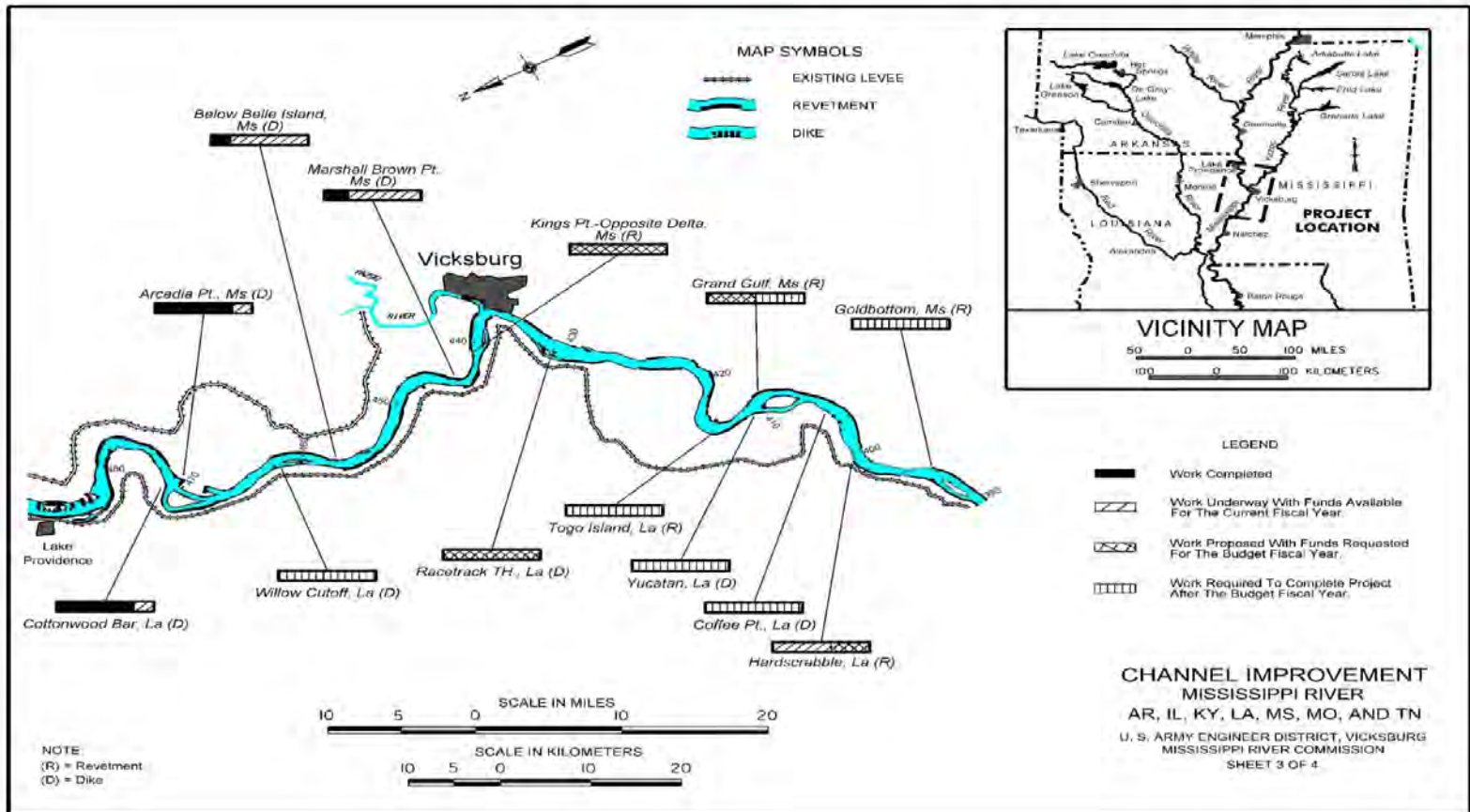


Mississippi River Commission

Memphis, Vicksburg, and
 New Orleans Districts

Channel Improvement, AR, IL,
 KY, LA, MS, MO, and TN

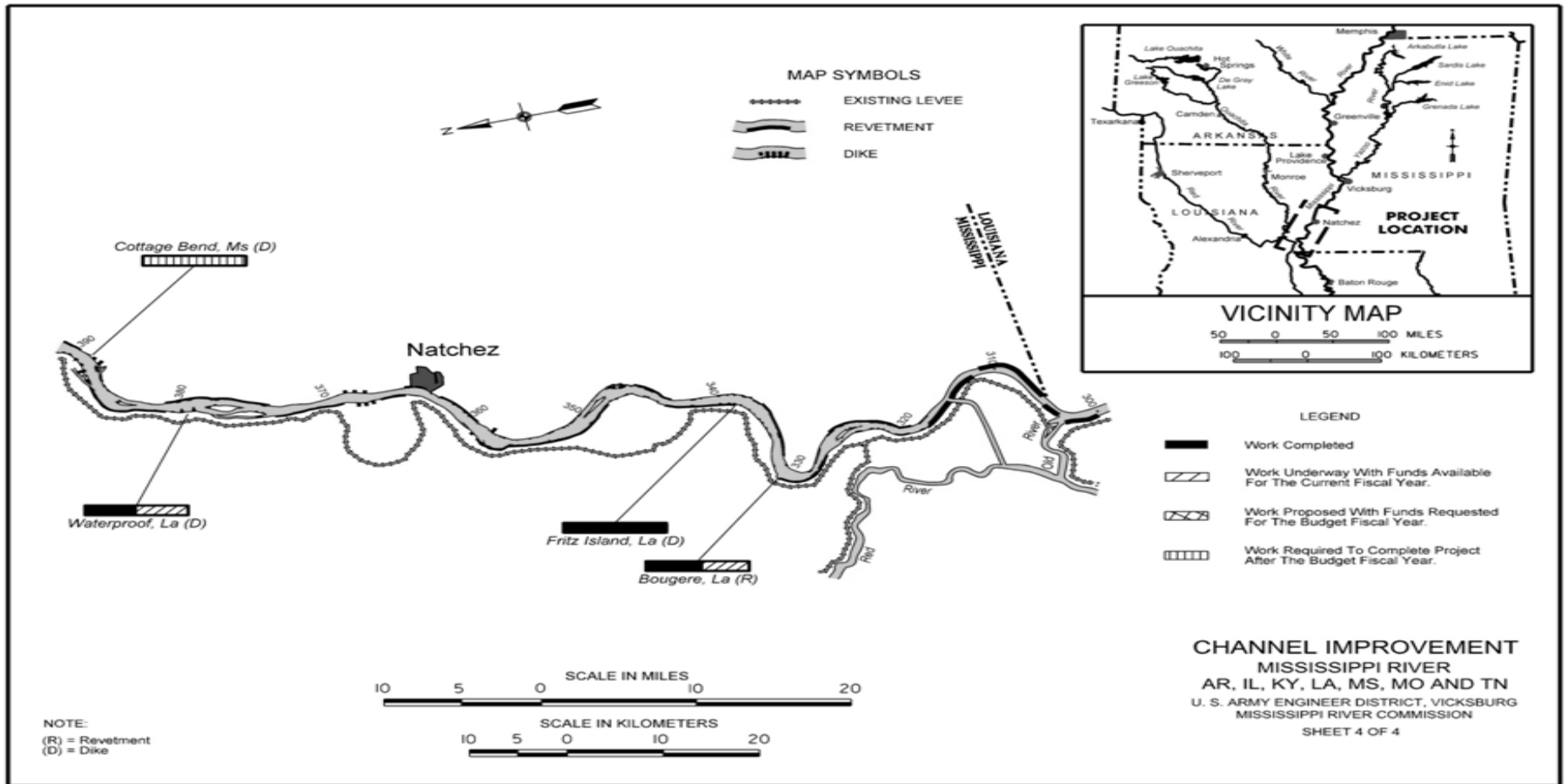




Mississippi River Commission

Memphis, Vicksburg, and
New Orleans Districts

Channel Improvement, AR, IL
KY, LA, MS, MO, and TN



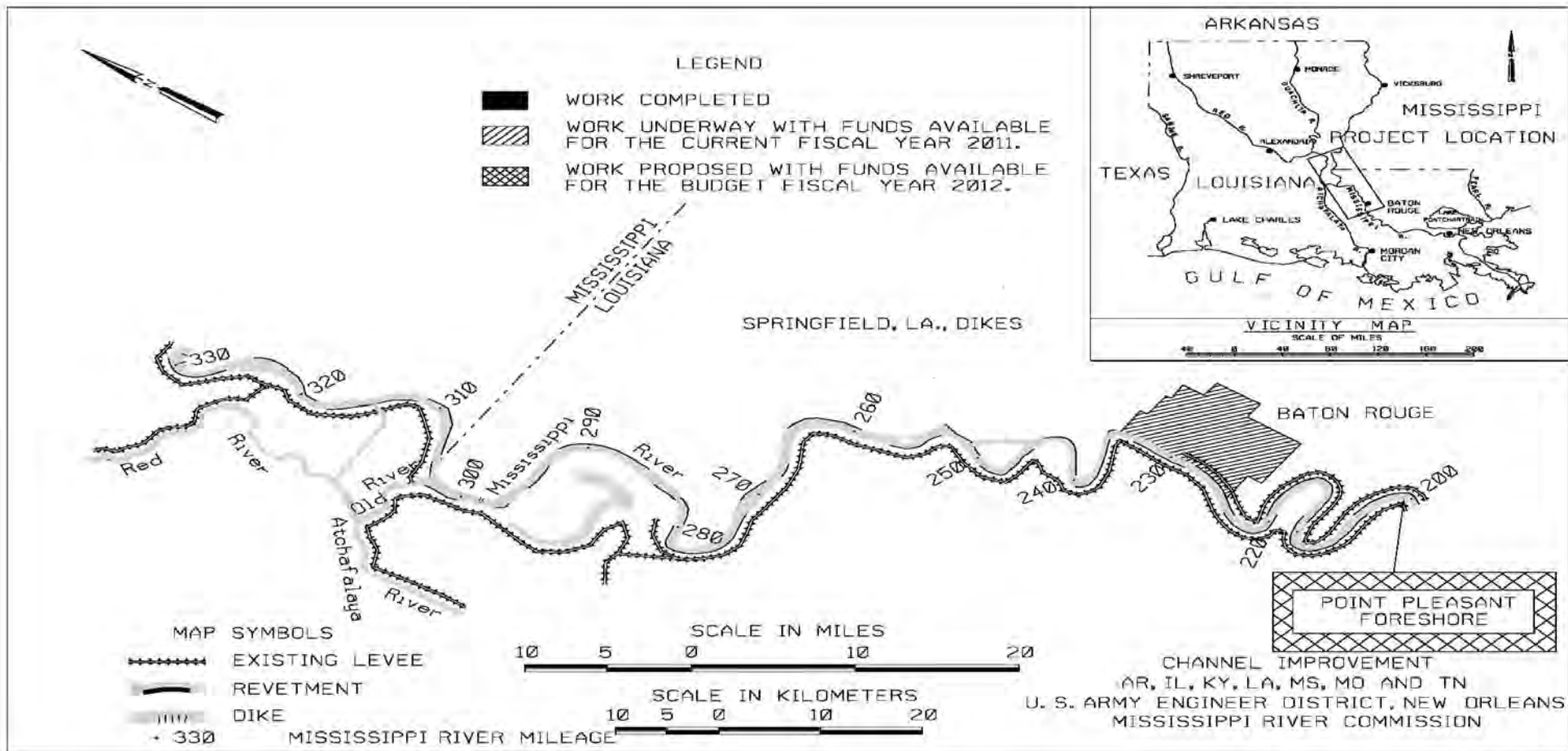
Mississippi River Commission

Memphis, Vicksburg, and
New Orleans Districts

Channel Improvement, AR, IL
KY, LA, MS, MO, and TN

14 February 2011

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SHEET 1 OF 2

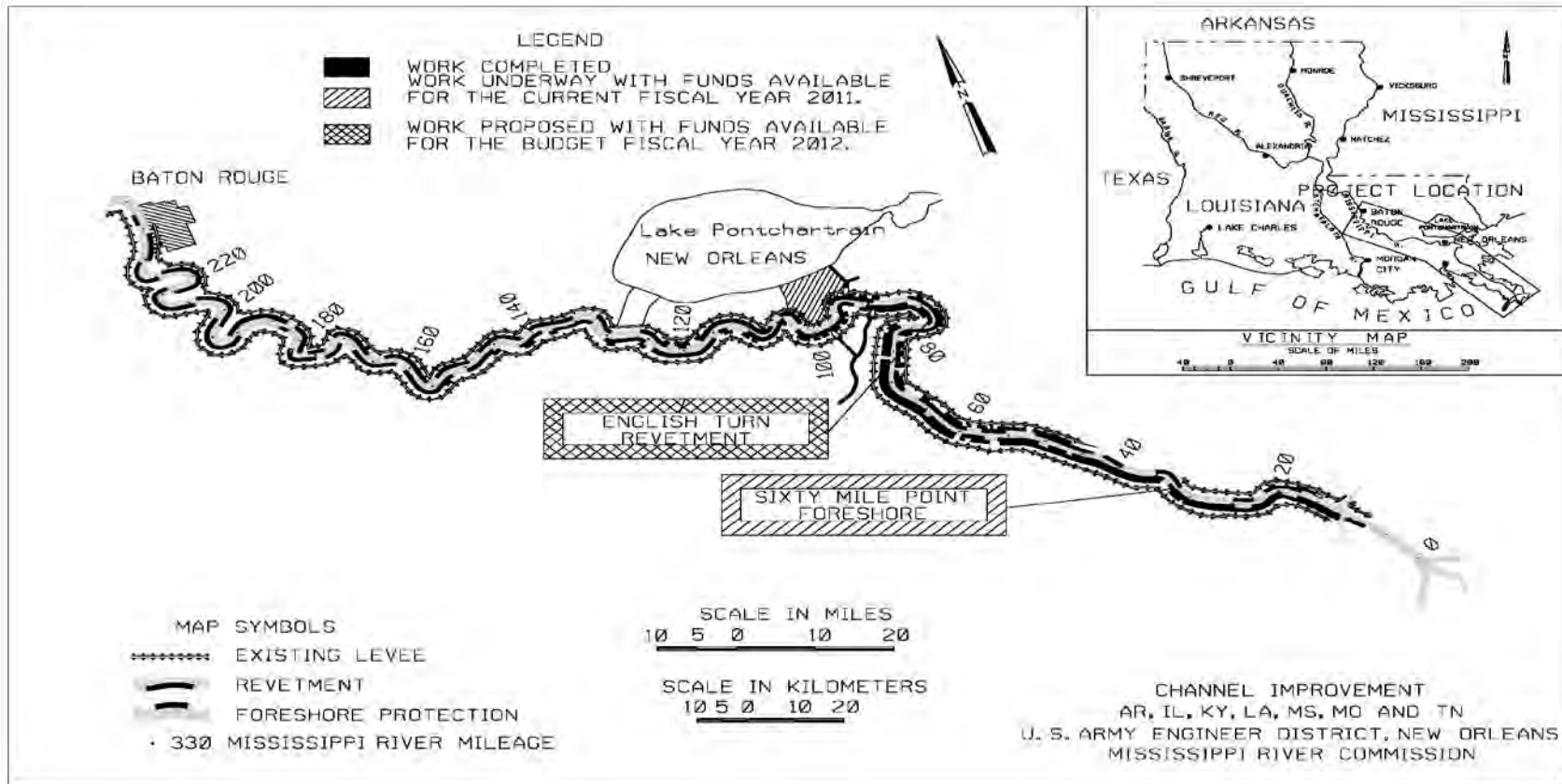
Mississippi River Commission

Memphis, Vicksburg, and
New Orleans Districts

Channel Improvement, AR, IL
KY, LA, MS, MO, and TN

14 February 2011

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SHEET 2 OF 2

Mississippi River Commission

Memphis, Vicksburg, and
New Orleans Districts

Channel Improvement, AR, IL,
KY, LA, MS, MO, and TN

APPROPRIATION TITLE: Flood Control, Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO, TN - Construction

PROJECT: Mississippi River Levees, Arkansas, Illinois, Kentucky, Louisiana, Mississippi, Missouri and Tennessee (Continuing)

LOCATION: The Mississippi River Levee system on the west bank extends from Allenville, Missouri, on the Little River Diversion Channel generally southward to the vicinity of Venice, Louisiana, and on the east bank from Hickman, Kentucky, to opposite Venice, Louisiana, except where interrupted by hills and tributary streams. Included in the system are the levees which protect Mounds, Mound City and Cairo, Illinois, and the New Madrid Levee and Floodway.

DESCRIPTION: The plan of improvement provides for raising, strengthening, and in some cases, extending existing levees to provide protection against the project flood. This feature includes 1,519.5 miles of levees and 14.8 miles of floodwall. All work is programmed.

AUTHORIZATION: Flood Control Acts of 1928, 1936, 1938, 1941, 1946, 1950, 1954, 1962, 1965, 1968, and PL 92-222.

REMAINING BENEFIT-REMAINING COST RATIO: Validated Remaining Benefit-Remaining Cost Not Available.

TOTAL BENEFIT-COST RATIO: 3.4 to 1 at 7 percent. The benefit-cost ratio is based on all features which comprise the Main Stem system of the Mississippi River and Tributaries project.

INITIAL BENEFIT-COST RATIO: This project feature of the Main Stem system was authorized in Fiscal Year 1928 and initial construction funds were provided in Fiscal Year 1928. The authorized comprehensive review of the Mississippi River and Tributaries project, contained in House Document 308/88/2, as updated to reflect 1965 conditions and price levels, is considered to be the base estimate for the Main Stem system. The benefit-cost ratio for the Main Stem components computed for the base estimate was 7.9 to 1.

BASIS OF BENEFIT-COST RATIO: Benefits are from the latest available evaluation approved in October 1979 at 1979 price levels. The last comprehensive analysis was conducted in 1974. The 1979 analysis is the same as the 1974 analysis except that certain undocumented benefit categories were eliminated and 1979 prices were used.

Mississippi River Commission

Memphis, Vicksburg, and
New Orleans Districts

Mississippi River Levees, AR, IL
KY, LA, MS, MO, and TN

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST	STATUS (1 Jan 2011)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Total Appropriation Requirement		\$2,441,900,000		Entire Project	88	TBD
Future Non-Federal Reimbursement		674,000				
Estimated Federal Cost (Ultimate)		2,441,226,000				PHYSICAL DATA
Estimated Non-Federal Cost		84,653,000		Channel and Canals		72 miles
Cash Contributions	2,615,000			Levees:		
Other Costs	81,364,000			Average Height		20-35 feet
Reimbursement	674,000			Length		1,603.0 miles
Recreation Facilities	674,000			Floodwalls:		
				Average Height		14-23 feet
Total Estimated Project Cost		\$2,526,553,000		Length		14.8 miles
Allocations to 30 September 2008		\$1,273,078,000		Levee Berms		540.8 miles
Allocation for FY 2009		64,547,000		Levee Roads		1,377.3 miles
Allocation for FY 2010		44,653,000		Pumping Stations		5
Recovery Act Allocations to Date		6,300,000				
President's Budget for FY 2011		29,150,000				
Allocation for FY 2011		29,150,000				
Allocations through FY 2011		1,417,728,000	58			
Budget for FY 2012		24,180,000	59			
Programmed Balance to Complete After FY 2012		999,318,000				
Unprogrammed Balance to Complete After FY 2012		0				

Mississippi River Commission

Memphis, Vicksburg, and
New Orleans Districts

Mississippi River Levees, AR, IL
KY, LA, MS, MO, and TN

JUSTIFICATION: The Mississippi River Levee system is one of several Main Stem components, which together comprise the plan of improvement for the flood risk reduction on the Mississippi River. The components are: Mississippi River Levees, Channel Improvement, South Bank Arkansas and South Bank Red River Levees, the Atchafalaya Basin, Atchafalaya Basin Floodway System, Old River and a few miscellaneous items. Because the benefits of the Mississippi River Levees derive from the way in which they operate together with the other Main Stem components when the Mississippi River floods, the benefit-cost ratio is a composite one that covers the entire plan.

The Mississippi River Levee System provides protection to 23,620 square miles and partial protection to an additional 3,780 square miles in the alluvial valley subject to flooding by the project flood. The alluvial valley is over 650 miles long and varies in width from 20 to 90 miles. Numerous railroads, highways, and airfields connecting the major transportation centers lie within the protected area as do several major transcontinental communication routes. In addition to highly developed agricultural areas, the levees afford protection to urban areas and many industries.

The value of lands and improvements protected by the Main Stem System authorized works against the design flood is \$200.8 billion in 2010 dollars. This consists of 226,000 residential acres which include the City of New Orleans, 45,000 acres of commercial lands, 10 million acres of agricultural lands, and 6.5 million acres of woodland and marshland. The area subject to flooding by project flood assuming no protective works is 22.7 million acres. The area that will be provided complete protection by the completed project is 15.1 million acres.

The maximum flood of record was the 1927 flood which overflowed about 26,000 square miles, caused the deaths of 214 people, rendered 637,000 people temporarily homeless, and caused property damages of \$347.0 million. This would be equivalent to \$15.2 billion in damages in 2010 prices.

The next flood of magnitude was the 1973 flood which overflowed 16,875 square miles (10.8 million acres), caused the death of 28 people, and displaced approximately 45,300 persons. The deaths and displacements of persons would have been significantly higher without the project in place. Without Federal projects, approximately 19.8 million acres would have been inundated. Total damages with existing projects in operation were \$643 million (1973 price levels). Damages without projects would have been \$11.3 billion and total damages prevented by projects amounted to \$10.6 billion. Expressed in 2010 prices, damages without the projects would have been \$55.0 billion and damages prevented would have been \$51.9 billion.

The benefit-cost ratio was derived by measuring the total benefits credited to those Main Stem components against their total cost. Average annual remaining benefits for the composite of Main Stem features are as follows:

Annual Remaining Benefits	Amount @ 2.5 %	Amount @ 7%
Flood Control	\$ 1,015,854,680	\$ 404,698,550
Navigation	205,344,025	106,716,688
Area Redevelopment	1,800,283	1,546,618
Recreation	2,491,300	2,577,698
 Total	 \$ 1,225,490,288	 \$ 515,539,554

Mississippi River Commission	Memphis, Vicksburg, and New Orleans Districts	Mississippi River Levees, AR, IL KY, LA, MS, MO, and TN
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FISCAL YEAR 2011: Current funds are being used as follows:

Continue:	
Lands and Damages	175,000
Culture Resources Preservation	125,000
Relocations	500,000
Award:	
Linda, MO Relief Wells, Item 876-R	2,000,000
Brunswick-Halpino, Item 458-L	2,750,000
Vidalia-Moreville, LA, Item 357-R	4,000,000
Duncan Point Seepage, Item 225.9-225.0-E	3,200,000
Baton Rouge Front Phase III, Item 229.1-229.2-E	550,000
WBV Polder Completion (MR&T Grade) , Item 70-85.5-W	3,500,000
Planning, Engineering, and Design	8,750,000
Supervision and Administration	3,600,000
Total	\$29,150,000

In the event of emergency conditions, such as levee slides, sand boils, bank erosion or other events which threaten levee integrity, the Corps intends to reallocate the funds identified on the priorities presented below to accomplish necessary emergency actions.

FISCAL YEAR 2012: The requested amount will be applied as follows:

Continue:	
Lands and Damages	75,000
Award (Fully Funded)	
Island 8, KY Relief Wells, Item 915-L	3,500,000
Cultural Resources	25,000
Magna Vista-Brunswick, MS. Item 463-L	6,000,000
Avondale Ramps, Item 107.5-107.3-W	4,680,000
Planning, Engineering and Design	7,000,000
Supervision and Administration	2,900,000
Total	\$24,180,000

Mississippi River Commission

Memphis, Vicksburg, and
New Orleans Districts

Mississippi River Levees, AR, IL
KY, LA, MS, MO, and TN

NON-FEDERAL COST: In accordance with the Flood Control Acts of 1928, 1936, 1938, 1941, 1946, 1950, 1954, 1962, 1965, 1968 and PL 92-222, the non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation and Replacement Costs
Provide lands, easements, rights-of-way, and borrow and excavated or dredged material disposal areas.	\$81,042,000	\$4,139,000
Minor maintenance of all flood control works after their completion, except controlling a regulating spillway structures, including special relief levees; maintenance includes normally such matters as cutting grass, removal of weeds, local drainage and minor repairs to mainline river levees.		\$4,139,000
Pay one-half of the separable costs allocated to recreation (except recreational navigation) and bear all costs of operation, maintenance, repair, rehabilitation and replacement of recreation facilities.	3,289,000	0
Other (levee and revetment construction)	322,000	
Total Non-Federal Costs	\$84,653,000	\$4,139,000

Mississippi River Commission

Memphis, Vicksburg, and
New Orleans Districts

Mississippi River Levees, AR, IL
KY, LA, MS, MO, and TN

STATUS OF LOCAL COOPERATION: It is estimated that local interests had spent approximately \$292,000,000 for flood protection prior to the Act of 15 May 1928. After passage of the Act, the 37 levee districts along the Mississippi River adopted resolutions assuring the United States that the requirements of local cooperation will be met. These local interests have acquired all rights-of-way for work completed and underway and will try to provide the rights-of-way for work scheduled for Fiscal Year 2011. Supplemental assurances covering the requirements of the Uniform Relocations Assistance and Real Property Acquisition Policies Act of 1970 (PL 91-646) have been accepted for Main Stem Mississippi River Levees in Arkansas, Illinois, Kentucky, Louisiana, Mississippi, Missouri, and Tennessee.

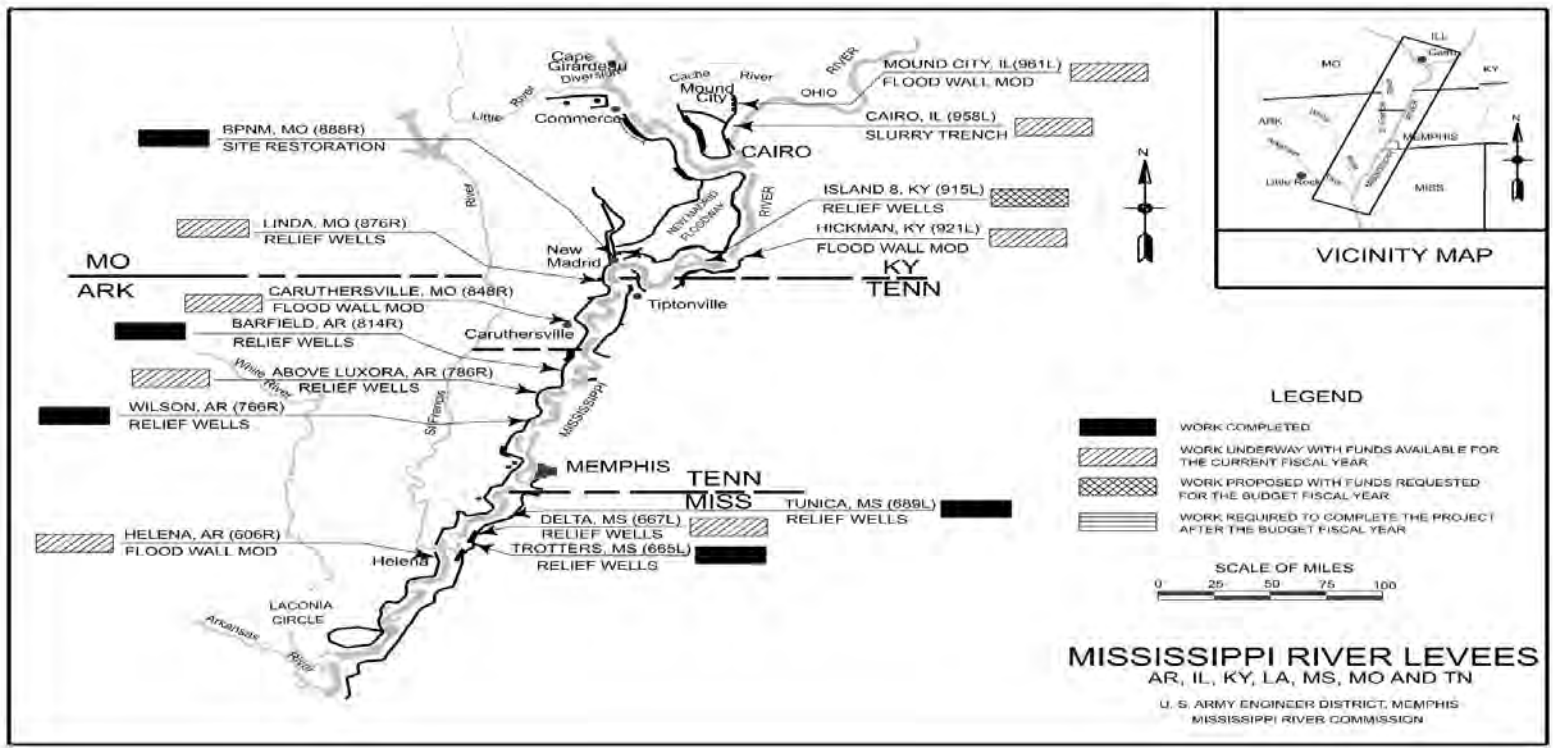
Assurances of local cooperation for the recreation facilities at Warfield Point, Mississippi, were accepted on 14 October 1969. Supplemental assurances covering the River and Harbor Act of 1970 (PL 91-611) and PL 91-646 were accepted 7 August 1972. Assurances have not as yet been requested for the recreation facilities at Mississippi River State Park, Arkansas.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$2,441,900,000 is a decrease of \$86,547,000 from the latest estimate (\$2,528,447,000) presented to Congress (FY 2011). This change includes the following items:

Item	Amount
Price Escalation on Construction Features	\$-53,146,000
Post Contract Award and Other Estimating Adjustments	-35,682,000
Price Escalation on Real Estate	2,281,000
Total	\$-86,547,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Final Environmental Impact Statement was filed with the Council on Environmental Quality on 16 April 1976. A Supplemental Environmental Impact Statement for the project was completed and the Record of Decision was signed on 5 October 1998. The adequacy of the Supplemental Environmental Impact Statement was challenged but upheld by the United States District Court for the Eastern District of Louisiana. The Fifth Circuit Court of Appeals on October 23, 2000, affirmed the district court's grant of summary judgment to the Government.

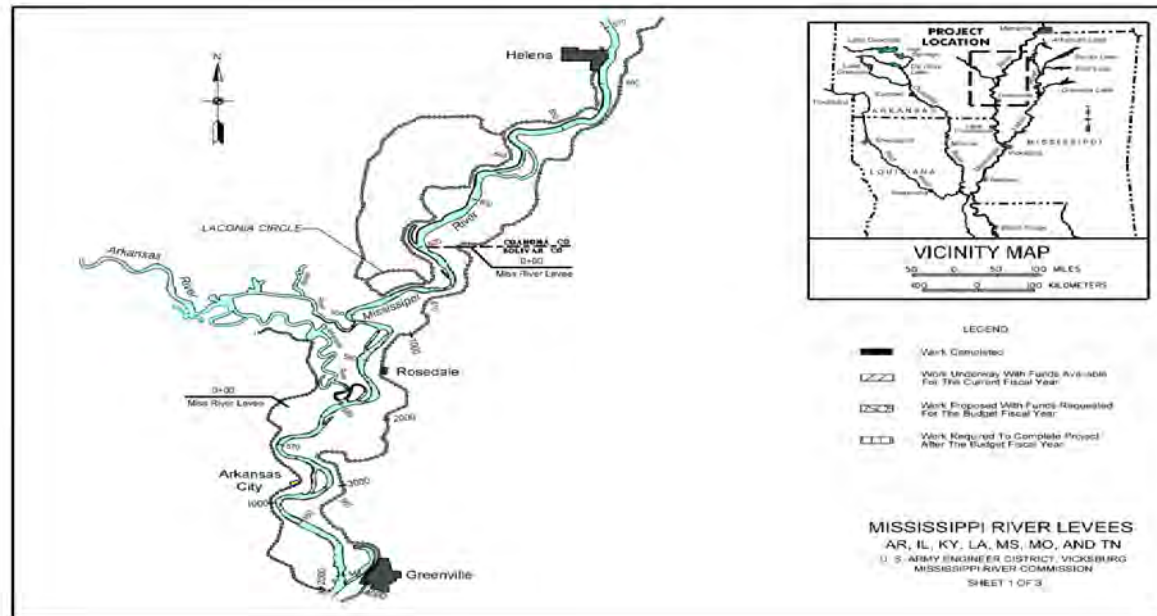
OTHER INFORMATION: Initial construction funds were appropriated in Fiscal Year 1928.



Mississippi River Commission

Memphis, Vicksburg, and
New Orleans Districts

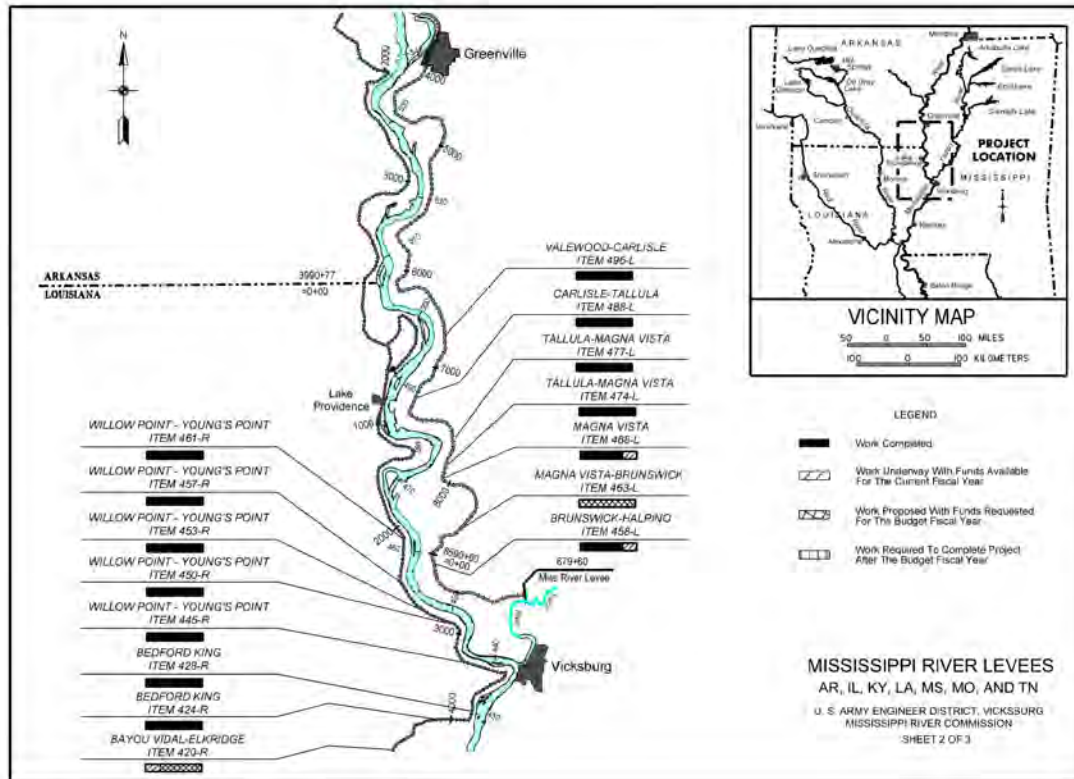
Mississippi River Levees, AR, IL,
KY, LA, MS, MO, and TN



Mississippi River Commission

Memphis, Vicksburg, and
New Orleans Districts

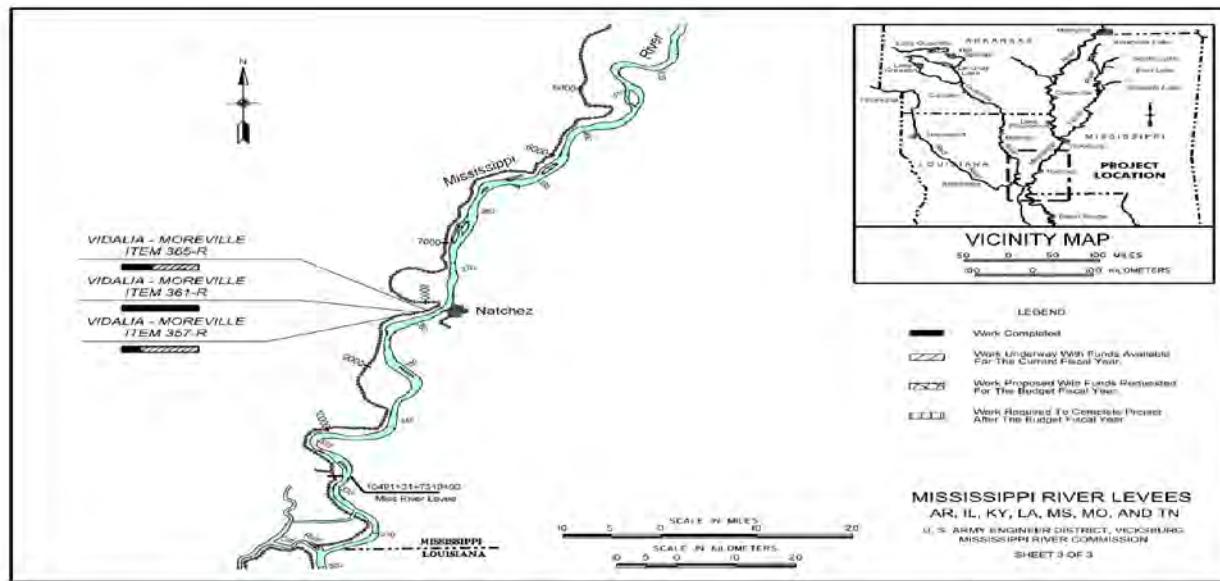
Mississippi River Levees, AR, IL,
KY, LA, MS, MO, and TN



Mississippi River Commission

Memphis, Vicksburg, and
 New Orleans Districts

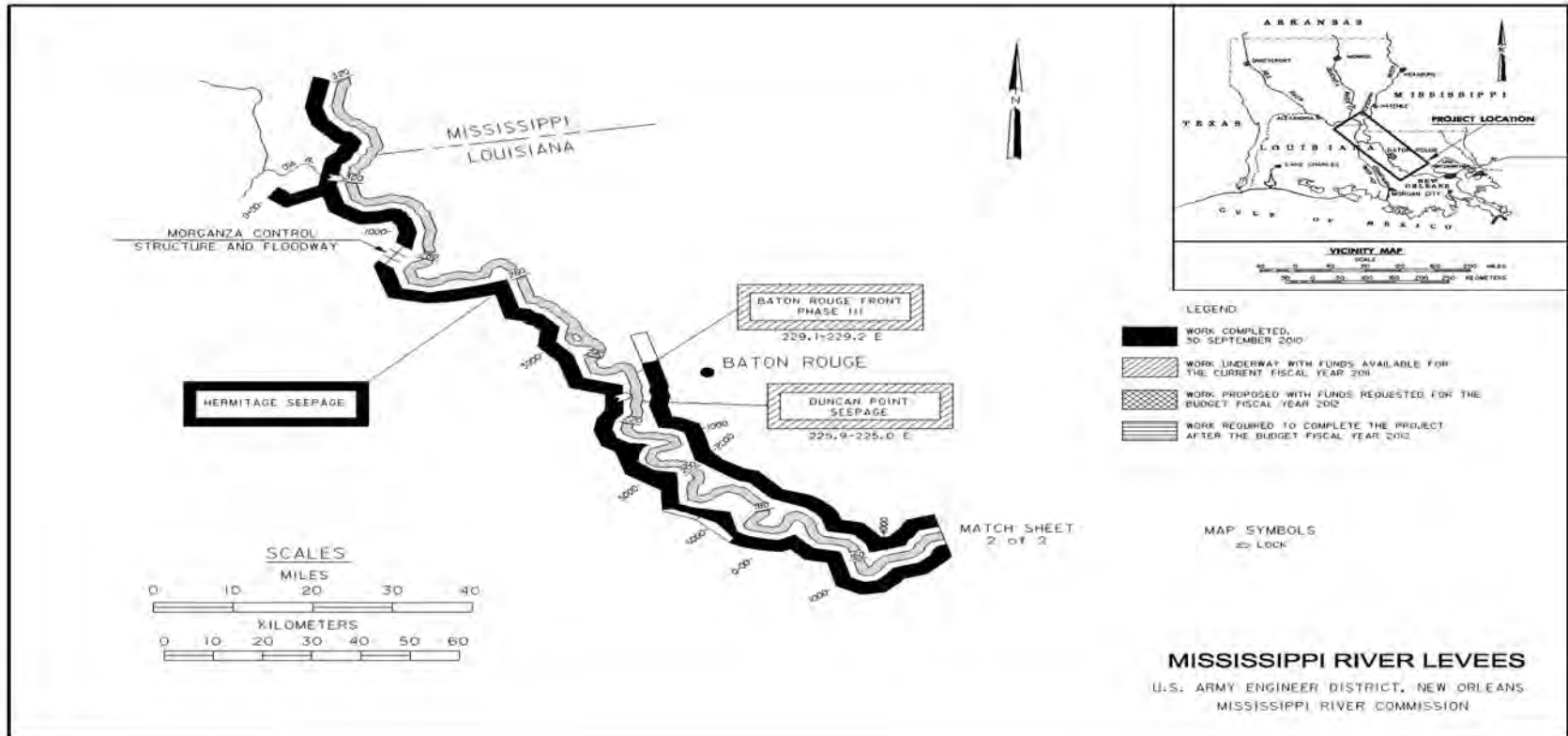
Mississippi River Levees, AR, IL,
 KY, LA, MS, MO, and TN



Mississippi River Commission

Memphis, Vicksburg, and
New Orleans Districts

Mississippi River Levees, AR, IL
KY, LA, MS, MO, and TN

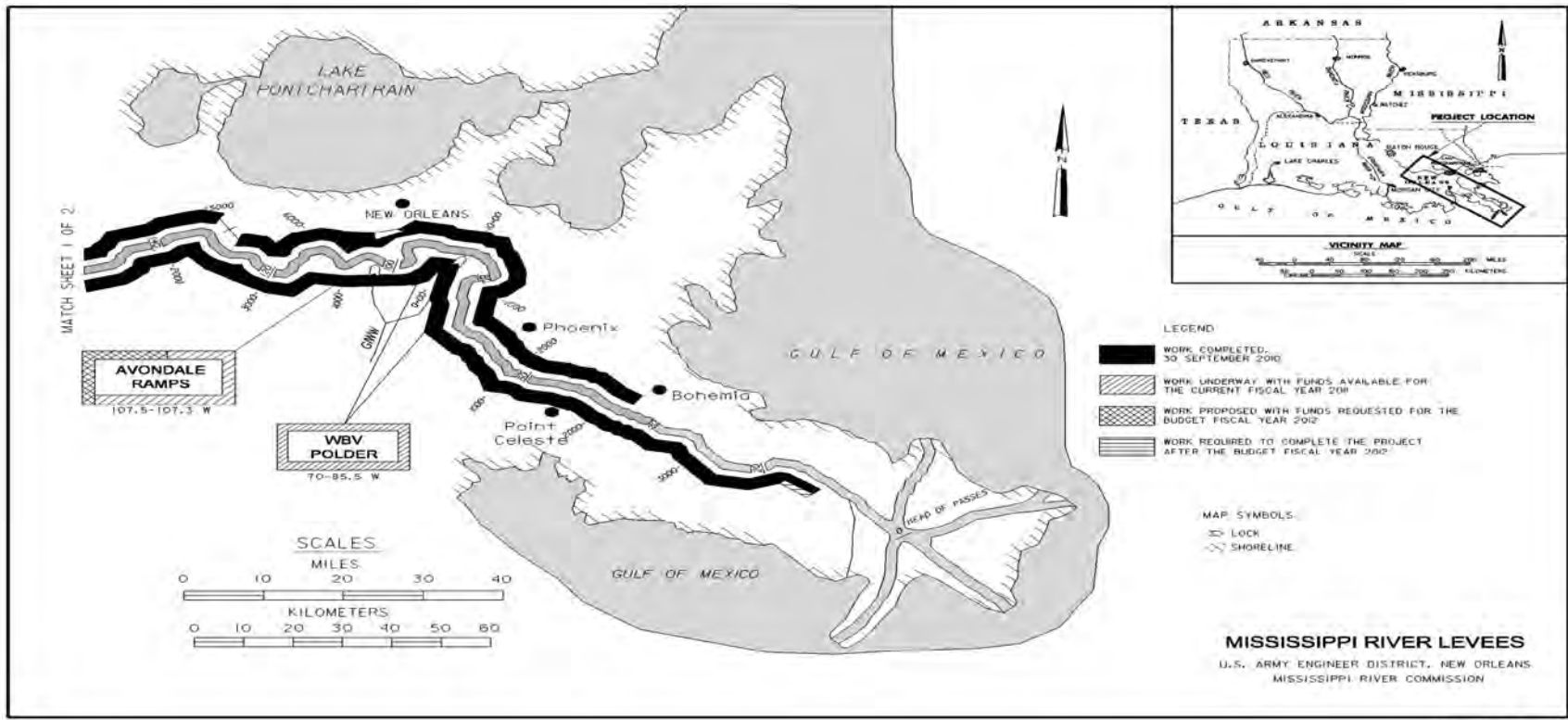


SHEET 1 OF 2

Mississippi River Commission

Memphis, Vicksburg, and
 New Orleans Districts

Mississippi River Levees, AR, IL
 KY, LA, MS, MO, and TN



SHEET 2 OF 2

Mississippi River Commission

Memphis, Vicksburg, and
 New Orleans Districts

Mississippi River Levees, AR, IL
 KY, LA, MS, MO, and TN

14 February 2011

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ENVIRONMENT

INVESTIGATIONS

APPROPRIATION TITLE: Flood Control, Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO, and TN - Investigations, Fiscal Year 2012

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2009 \$	Allocation FY 2009 \$	Allocation FY 2010 \$	Allocation FY 2011 \$	Tentative Allocation FY 2012 \$	Additional to Complete After FY 2012 \$
Memphis Metropolitan Area, Storm Water Management Study, TN & MS Memphis District	3,100,000	416,000	33,000	97,000	100,000	100,000	2,354,000

The purpose of the Memphis Metropolitan Storm Water Management study is to evaluate the need for improvements for flood control, ecosystem restoration, water quality, and related purposes associated with storm water runoff and management in the area. The study area includes all or part of five counties: Shelby, Tipton and Fayette Counties in Southwest Tennessee, and DeSoto and Marshall Counties in Northwest Mississippi. The area encompasses all or part of six major drainage basins which are tributaries to the Mississippi River: Hatchie River, Loosahatchie River, Wolf River, Nonconnah Creek, Horn Lake Creek, and Coldwater River and includes approximately 2,600 square miles and drain an urban area of over one million people. Continuing problems with stormwater runoff, stream stability, water quality, wetland hydrology and aquatic habitat prompted the study. The Memphis Metropolitan Area Storm Water Management, TN & MS reconnaissance study recognized the likelihood of multiple feasibility studies with multiple sponsors. Three feasibility studies have been identified to date. The first will address restoration of Indian Creek, a channelized tributary of the Hatchie River. The stream is unstable, with eroding banks, diminished riparian areas and wetlands, and severely degraded aquatic habitat. The Nature Conservancy and the West Tennessee River Basin Authority are the potential sponsors. The second will address flood management and ecosystem restoration in the Loosahatchie River Basin within Fayette County. Development in the area has caused problems with stormwater management and erosion. The streambed is unstable, wetlands are being dewatered and water quality is compromised. Fayette County and the West Tennessee River Basin Authority are the potential sponsors. The third will address establishment of gradient control in the mainstem of the Hatchie River to restore bank conditions, aquatic habitat and wetland hydrology. The West Tennessee River Basin Authority is the potential sponsor. Other organizations including the Tennessee Department of Transportation, Chickasaw Basin Authority, Ducks Unlimited and the Audubon Society have expressed interest in various elements of the project and may be willing to sponsor part of the currently identified feasibility studies or other feasibility studies ensuing from this reconnaissance effort.

The reconnaissance phase was completed in December 2009 at a cost of \$300,000 and the report identified a Federal interest and potential cost share partners for three potential studies. The first study will investigate ecosystem restoration of Indian Creek in Tipton County, TN, a channelized tributary of the Hatchie River. A Feasibility Cost Share Agreement (FCSA) is scheduled to be executed in May 2011 with the West Tennessee River Basin Authority (WTRBA). Fiscal Year 2011 and carryover funds are being used to continue the feasibility phase of this study. Fiscal Year 2012 funds will be used to continue the first study. The estimated cost of the Indian Creek feasibility study is \$1,000,000 which will be cost shared on a 50-50 percent basis and is scheduled to be completed in December 2013. The total estimated cost of all three feasibility studies is \$5,600,000 which is to be shared on a 50-50 percent basis. A summary of study cost sharing is as follows:

Total Estimated Study Cost	\$5,900,000
Reconnaissance Phase (Federal)	300,000
Feasibility Phase (Federal)	2,800,000
Feasibility Phase (Non-Federal)	2,800,000

CONSTRUCTION

APPROPRIATION TITLE: Flood Control, Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO, and TN - Construction

PROJECT: Atchafalaya Basin Floodway System, Louisiana (Continuing)

LOCATION: The project is located in south central Louisiana and encompasses approximately 595,000 acres in an area bounded on the north by south right-of-way line of the Union Pacific Railroad (just south of US Hwy 190 passing through Krotz Springs, LA); on the south by Morgan City; and on the east and west by the East and West Atchafalaya Basin Protection Levees.

DESCRIPTION: The plan of improvement consists of acquisition of real estate interest, excluding minerals, in the Lower Atchafalaya Floodway for flood control purposes, environmental protection purposes, developmental control purposes, and public access; acquisition of real estate interest, excluding minerals, in the Lower Atchafalaya Floodway, for recreation developmental purposes and construction of several campgrounds, boat launching ramps, visitor's center, other recreational facilities and initial construction of two pilot water management units, including construction of miscellaneous canal closures and water circulation improvements, and implementation of future units at the discretion of the Chief of Engineers. These project features will be implemented in accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986. All work is programmed.

AUTHORIZATION: Supplemental Appropriations Act, 1985; Water Resources Development Act, 1986; Energy and Water Development Appropriations Act, 1988; Energy and Water Development Appropriations Act, 1991; Energy and Water Development Appropriations Act, 1997; and Water Resources Development Act, 2000, and Water Resources Development Act of 2007.

REMAINING BENEFIT-REMAINING COST RATIO: Validated Remaining Benefit-Remaining Cost Ratio not available

TOTAL BENEFIT-COST RATIO: 3.4 to 1 at 7 percent. The benefit-cost ratio is based on all features which comprise the Main Stem system of the Mississippi River and Tributaries project.

INITIAL BENEFIT-COST RATIO: This project is a feature of the Main Stem system that was authorized in Fiscal Year 1928. Initial funds for the acquisition of real estate interests for flood control, developmental control, environmental protection, and public access were provided in 1985. The authorized comprehensive review of the Mississippi River and Tributaries project, contained in House Document 308/88/2, as updated to reflect 1965 conditions and price levels, is considered to be the base estimate for the Main Stem system. The benefit-cost ratio for the Main Stem components computed for the base estimate was 7.9 to 1.

BASIS OF BENEFIT-COST RATIO: Benefits are from the latest available evaluation approved in October 1979 at 1979 price levels. The latest comprehensive analysis was conducted in 1974. The 1979 analysis is the same as the 1974 analysis except that certain undocumented benefit categories were eliminated and 1979 prices were used.

Mississippi River Commission

New Orleans District

Atchafalaya Basin Floodway Systems, LA

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST	STATUS (1 Jan 2011)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		\$367,574,000		Land Acquisition	60	TBD
Estimated Non-Federal Cost		73,308,000		Recreation	5	TBD
Cash Contribution	70,934,400			Management Units	6	TBD
Other Costs	2,445,600			Entire Project	33	TBD
Total Estimated Project Cost		\$440,882,000				
PHYSICAL DATA						
Allocations to 30 September 2008		\$127,554,000				
Allocations for FY 2009		2,025,000				Lands and Damages: 388,000 Acres
Allocation for FY 2010		2,894,000				Recreational Facilities
Recovery Act Allocations To Date		3,907,000				
President's Budget for FY 2011		2,631,000				3 campgrounds – developed
Allocation for FY 2011		2,631,000				7 campgrounds – primitive
Allocations through FY2011		139,011,000	37			15 2-lane boat launching ramps
Budget for FY 2012		1,900,000	37			1 Visitors Center
Programmed Balance to Complete after FY 2012		226,663,000				Trails
Unprogrammed Balance to Complete after FY 2012		0				Water Management Units
						Miscellaneous canal closures and water circulation channels

Mississippi River Commission

New Orleans District

Atchafalaya Basin Floodway Systems, LA

JUSTIFICATION: The Atchafalaya Basin Floodway System features result from a comprehensive study with a view to developing a plan for the enhancement, management, and preservation of the water quality and related land resources of the Atchafalaya River Basin, Louisiana, which would include provisions for reductions of siltation, improvement of water quality, and possible improvements of the area for commercial and sport fishing. The features of the Atchafalaya Basin Floodway System are compatible with the current flood control plan, and include real estate acquisition of lands, flowage easements, and developmental control easements in the floodway south of Krotz Springs, Louisiana, to ensure unhampered use of the floodway during major floods; and environmental protection easements to protect the basin's environmental resources. Provision of additional public access and several campgrounds, boat launching ramps, visitors' center, and other recreational facilities are also authorized. The water management units' feature involves making use of distinct and unique hydrologic units within the floodway to improve historical (where practical) overflow conditions and thereby enhance aquatic ecosystem productivity.

The Atchafalaya Basin Floodway System is one of several Main Stem components, which together comprise the plan of improvement for the control of floods on the Mississippi River. The components are: Mississippi River Levees, Channel Improvement, South Bank Arkansas and South Bank Red River Levees, the Atchafalaya Basin, Atchafalaya Basin Floodway System, Old River, and a few miscellaneous items. The benefits of the Atchafalaya Basin Floodway System are derived from the way in which they operate together with all other Main Stem components when the Mississippi River floods, the benefit-cost ratio is a composite one that covers the entire plan.

The value of lands and improvements protected by the Main Stem System authorized works against the design flood is \$200.8 billion in 2010 dollars. This consists of 226,000 residential acres which include the City of New Orleans, 45,000 acres of commercial lands, 10 million acres of agricultural lands, and 6.5 million acres of woodland and marshland. The area subject to flooding by project flood assuming no protective works is 22.7 million acres. The area that will be provided complete protection by the completed project is 15.1 million acres.

The maximum flood of record was the 1927 flood which overflowed about 26,000 square miles, caused the deaths of 214 people, rendered 637,000 people temporarily homeless, and caused property damages of \$347.0 million. This would be equivalent to \$15.2 billion in damages in 2010 prices.

The next flood of magnitude was the 1973 flood which overflowed 16,875 square miles (10.8 million acres), caused the death of 28 people, and displaced approximately 45,300 persons. The deaths and displacements of persons would have been significantly higher without the project in place. Without Federal projects, approximately 19.8 million acres would have been inundated. Total damages with existing projects in operation were \$643 million (1973 price levels). Damages without projects would have been \$11.3 billion and total damages prevented by projects amounted to \$10.6 billion. Expressed in 2010 prices, damages without the projects would have been \$55.0 billion and damages prevented would have been \$51.9 billion.

The benefit-cost ratio was derived by measuring the total benefits credited to those Main Stem components against their total cost. Average annual remaining benefits for the composite of Main Stem features are as follows:

Annual Remaining Benefits	Amount @ 2.5 %	Amount @ 7%
Flood Control	\$ 1,015,854,680	\$ 404,698,550
Navigation	205,344,025	106,716,688
Area Redevelopment	1,800,283	1,546,618
Recreation	2,491,300	2,577,698
Total	\$ 1,225,490,288	\$ 515,539,554

FISCAL YEAR 2011: The current amount is being applied as follows:

Continue:	
Buffalo Cove Construction	\$2,030,000
Water Management Units (Buffalo and Henderson)	383,000
SEIS	218,000
Total	\$2,631,000

FISCAL YEAR 2012: The requested amount will be applied as follows:

Buffalo Cove Construction & Monitoring	\$700,000
Henderson Management Unit (PED)	500,000
Lands and Damages	300,000
Engineering and Design (Buffalo Cove Modifications)	200,000
Environmental	200,000
Land Acquisition & LRR	
Total	\$1,900,000

Mississippi River Commission

New Orleans District

Atchafalaya Basin Floodway Systems, LA

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation and Replacement Costs
Pay one half of the separable cost allocated to recreation and bear all costs of operation, maintenance, and replacement of recreation facilities.	\$ 48,577,000	\$ 1,081,700
Provide lands, easements, right-of-way, and dredged material disposal areas for recreation.	2,247,750	0
Pay 25 percent of construction, operation, and maintenance of Water Management Units.	22,483,250	4,271,818
Total Nonfederal Costs	\$ 73,308,000	\$5,353,518

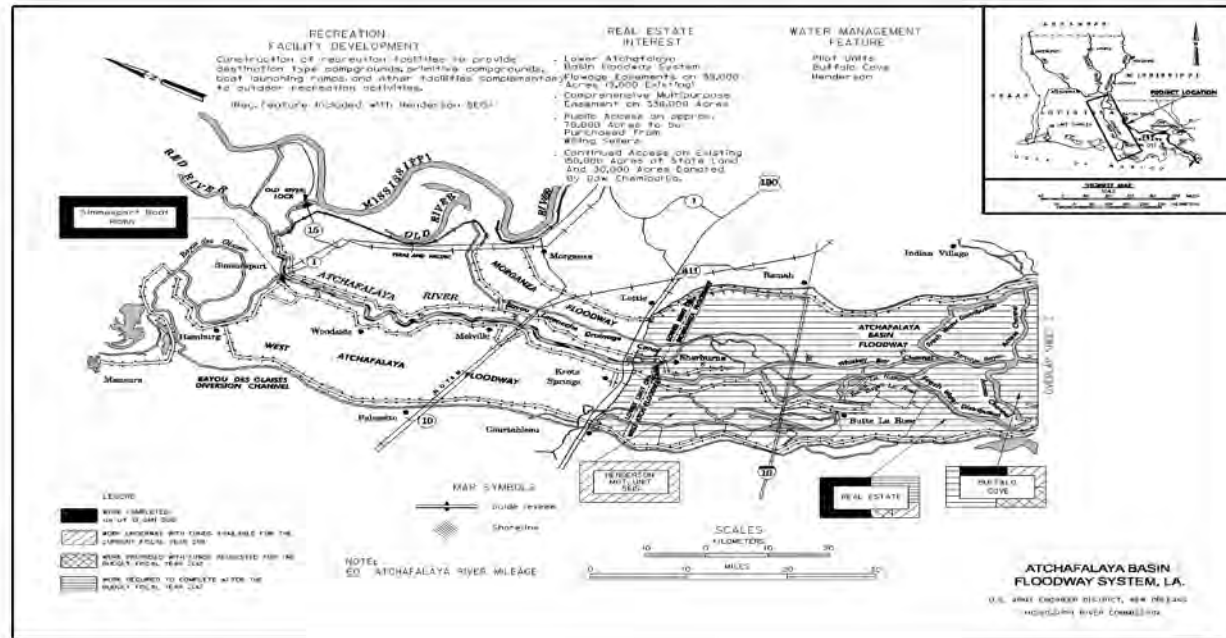
The non-Federal sponsor agreed to voluntarily contribute 25 percent of construction costs for Water Management Units. Buffalo Cove Water Management Unit construction has been exempted from non-Federal sponsor cost sharing.

STATUS OF LOCAL COOPERATION: The Avoyelles Parish Police Jury is the non-Federal sponsor for the Simmesport Boat Ramp and the PPA was executed on 18 April 2001. The State of Louisiana has provided a letter of intent supporting the recreation feature of the project and agrees to its cost sharing requirements. The State designated the Department of Natural Resources to be the lead State agency to represent the State in the implementation of the project. Additional sponsors, St. Mary Parish, serves as local sponsor for Myette Point Boat Landing and the PPA was executed on 18 May 2004. The State of Louisiana, Department of Natural Resources, is also serving as the sponsor for the management units. The PPA for the Buffalo Cove management unit was executed on 16 May 2005.

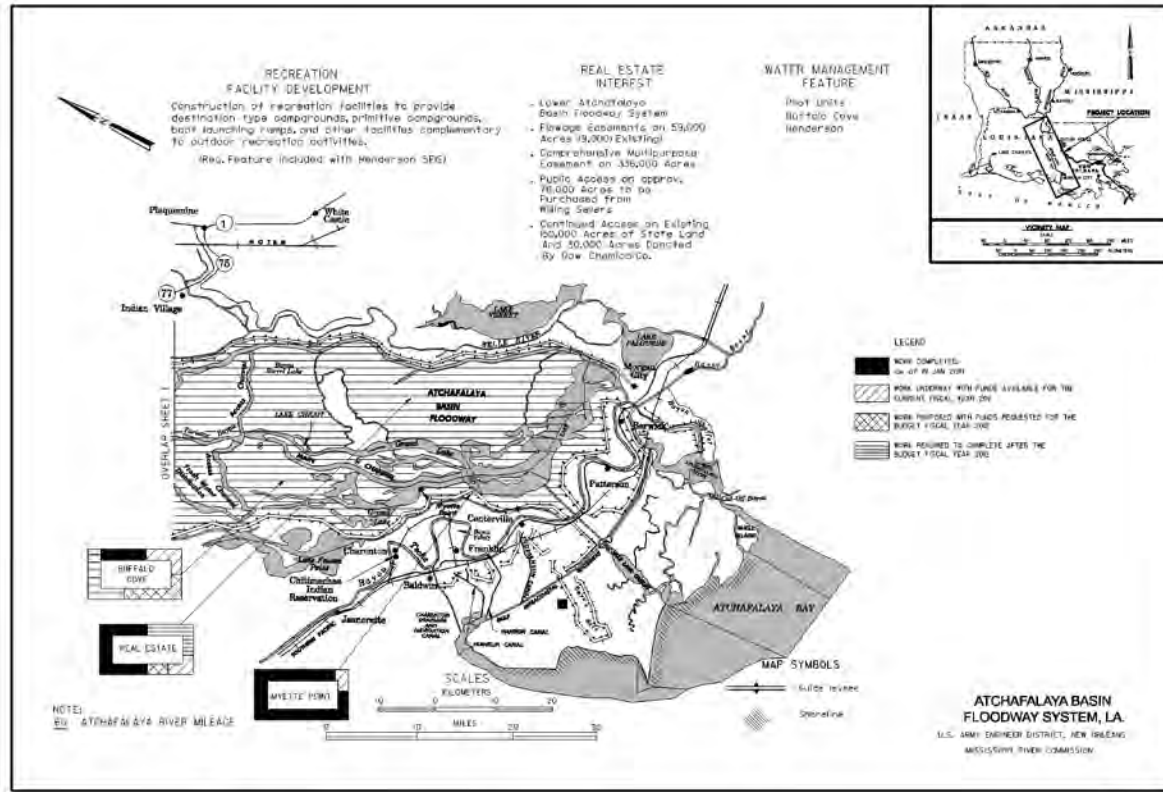
COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$367,574,000 is no change from the latest estimate presented to Congress (Fiscal Year 2011).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement was filed with the Environmental Protection Agency on 20 August 1982. A Supplemental Environmental Impact Statement (SEIS) for Henderson Lake Management Unit and Recreation Feature (combined) was initiated in fiscal year 2008. A Supplemental Environmental Impact Statement (SEIS) for Buffalo Cove, Flat Lake, Beau Bayou, and Bayou Cocodrie Swamp have also been initiated with completion paralleling the 5 year monitoring program for Buffalo Cove.

OTHER INFORMATION: First Fiscal Year project funds were appropriated was 1985.



SHEET OF 2



MR&T MAINTENANCE

Key to Abbreviations:

N = Navigation

FDR = Flood Damage Reduction

Rec = Recreation

Hydro = Hydropower

ES = Environmental Stewardship

WS = Water Supply

MR&T O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Flood Control, Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO and TN - Operation and Maintenance

PROJECT NAME: Atchafalaya Basin, LA

AUTHORIZATION: Authorized by Public Law. 780, 83rd Congress approved 3 September 1954, to provide for control of flows from the Mississippi River to the Atchafalaya River and Basin by mechanically operated control structures on the right bank of the Mississippi River. This is a modification of Flood Control Act of 15 May 1928.

LOCATION AND DESCRIPTION: The project is located in south-central Louisiana below the latitude of Old River and west of and generally paralleling the Mississippi River. The Atchafalaya River flows through the middle of the basin. The plan of improvement consists of a leveed floodway about 15 miles wide and 110 miles long that extends generally from the latitude of Old River to the Gulf of Mexico.

RECOVERY ACT ALLOCATIONS TO DATE: \$36,906,000

ALLOCATION FOR FY 2011: \$12,398,000

BUDGET FOR FY 2012: M: \$2,400,000 O: \$6,518,000 T: \$8,918,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$6,513,000 - Costs for operations, maintenance and repairs of locks and dredging operations.

FDR: \$2,405,000 – Cost for operations, maintenance and repairs flood control structures – Morganza FCS, Pointe Coupe PS, Charenton DS and 13 St Mary Parish PS.

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None

MR&T O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Flood Control, Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO and TN - Operation and Maintenance

PROJECT NAME: Atchafalaya Basin Floodway System, LA

AUTHORIZATION: Supplemental Appropriations Act, 1985; Water Resources Development Act, 1986; Energy and Water Development Appropriations Act, 1988; Energy and Water Development Appropriations Act, 1991; Energy and Water Development Appropriations Act, 1997; and Water Resources Development Act, 2000, and Water Resources Development Act of 2007

LOCATION AND DESCRIPTION: The project is located in south-central Louisiana and encompasses approximately 595,000 acres in an area bounded on the north by south right-of-way line of the Union Pacific Railroad (just south of US Hwy 190 passing through Krotz Springs, LA); on the south by Morgan City; and on the east and west by the East and West Atchafalaya Basin Protection Levees. Manage, operate and protect 50,000 acres of project lands and 200,000 acres of easement lands.

RECOVERY ACT ALLOCATIONS TO DATE: \$ 0

ALLOCATION FOR FY 2011: \$1,878,000

BUDGET FOR FY 2012: M: \$0 O: \$1,468,000 T: \$1,468,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: N/A

Rec: \$770,000 – Funding provides for operation and maintenance of recreation features of the project.

Hydro: N/A

ES: \$698,000 – Funding provides for operation and management of natural resources of project and easement lands.

WS: N/A

OTHER INFORMATION: None

Mississippi River Commission

New Orleans Districts

Atchafalaya Basin
Floodway System, LA

MR&T O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Flood Control, Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO and TN - Operation and Maintenance

PROJECT NAME: Baton Rouge Harbor, Devils Swamp, LA

AUTHORIZATION: Authorized by River and Harbor Act of 24 July 1946. Transferred to Flood Control, MR&T, under Flood Control Act of June 1948.

LOCATION AND DESCRIPTION: Provide a slack water channel for barge traffic and to provide an industrial expansion area for the port of Baton Rouge, Louisiana.

RECOVERY ACT ALLOCATIONS TO DATE: \$1,585,000

CONFERENCE AMOUNT FOR FY 2011: \$42,000

BUDGET FOR FY 2012: M: \$12,000 O: \$30,000 T: \$42,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$42,000 Surveys to determine channel conditions and time to dredge; funding ensures right of entry is granted.

FDR: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None

Mississippi River Commission

New Orleans District

Baton Rouge Harbor,
Devils Swamp, LA

MR&T O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Flood Control, Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO and TN - Operation and Maintenance

PROJECT NAME: Bayou Cocodrie and Tributaries, LA

AUTHORIZATION: Authorized by Section 3 of the Flood Control Act of 1941 and Section 87 of the Water Resources Development Act of 1974.

LOCATION AND DESCRIPTION: The project is located in central Louisiana, in Rapides, Avoyelles, Evangeline and St. Landry parishes and provides for flood relief to the area tributary to lower Bayou Courtableau.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

ALLOCATION FOR FY 2011: \$47,000

BUDGET FOR FY 2012: M: \$ 0 O: \$48,000 T: \$48,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FDR: \$48,000 - Costs for hired labor staff to collect, manage, store and disseminate data from water level gages in support of reducing flood heights and improving drainage.

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None

MR&T O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Flood Control, Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO and TN - Operation and Maintenance

PROJECT NAME: Bonnet Carre, LA

AUTHORIZATION: Flood Control Act of 15 May 1928 (PL 70-391), as amended.

LOCATION AND DESCRIPTION: The Bonnet Carre' Spillway is the southernmost floodway in the MR&T system. Located in St. Charles Parish, Louisiana, the spillway furnishes protection for the city of New Orleans and other communities about 26 miles downstream.

RECOVERY ACT ALLOCATIONS TO DATE: \$9,846,000

ALLOCATION FOR FY 2011: \$2,300,000

BUDGET FOR FY 2012: M: \$0 O: \$2,145,000 T: \$2,145,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FDR: \$1,500,000– Funding provides for routine operation and maintenance of the project.

Rec: \$419,000 – Accommodate visitation.

Hydro: N/A

ES: \$226,000- Management and maintenance of natural resources within the 7,623 acre project area.

WS: N/A

OTHER INFORMATION: None.

MR&T O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO, and TN – Operation and Maintenance

PROJECT NAME: Channel Improvement, AR, IL, KY, LA, MS, MO, and TN

AUTHORIZATION: FCA 1928 (Sec 1); 1936 (Sec 1); 1938 (Sec 4); 1941 (Sec 3); 1944 (Sec 10); 1962 (Sec 203); 1965 (Sec 201, 204); 1966 (Sec 202, 203); and 1970 (Sec 207); authorized stabilization of the banks of the Mississippi River along with other improvements to provide an increase in the carrying capacity of the river and protection to lands in the delta against flooding in the Lower Mississippi River Basin.

LOCATION AND DESCRIPTION: The project is located in the Mississippi River and along its banks from the vicinity of Cairo, Illinois, to the Head of Passes, Louisiana, a distance of approximately 966 miles. The plan of improvement consists of stabilizing the banks of the river in a desirable alignment to obtain the most efficient flow characteristics for it for flood control and navigation along the Mississippi River by means of revetments, dikes, foreshore protection, and improvement dredging.

RECOVERY ACT ALLOCATIONS TO DATE: \$41,891,000

ALLOCATION FOR FY 2011: \$67,508,000

BUDGET FOR FY 2012: M: \$54,685,000 O: \$6,545,000 T: \$61,230,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$14,313,000 – Funding provides for dredging and dike maintenance of the Mississippi River which is critical for transportation of goods and provides access to numerous ports and recreation facilities. Timely maintenance will insure stable maintenance cost and provide for channel stability and integrity.

FDR: \$46,917,000 – Funding provides for hired labor activities associated with the revetment season, upper bank paving, and stone repairs contract.

Rec: N/A.

Hydro: N/A.

ES: N/A.

WS: N/A.

OTHER INFORMATION: None.

Mississippi River Commission

Memphis, Vicksburg, and
New Orleans Districts

Channel Improvement, AR, IL,
KY, LA, MS, MO, and TN

MR&T O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Flood Control, Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO and TN - Operation and Maintenance

PROJECT NAME: Greenville Harbor, Mississippi

AUTHORIZATION: FCA 1928, as amended by the FCAs 1946, 1954, and WRDA 1986

LOCATION AND DESCRIPTION: The Greenville Harbor, located at Greenville, MS, provides access to the Mississippi River by way of a 250-foot-wide by 9-foot-deep channel. The harbor is located in an old bendway of the Mississippi River on Lake Ferguson, just southwest of the city of Greenville. The harbor and turning basin are 500 feet wide and 10,000 feet long, with a depth of 9 feet at the lowest river stages. The project's purpose is to provide local businesses, industries and vessels navigating the Mississippi River access to the harbor facilities at Greenville.

RECOVERY ACT ALLOCATIONS TO DATE: \$549,047

ALLOCATION FOR FY 2011: \$18,000

BUDGET FOR FY 2012: M: \$15,000 O: \$3,000 T: \$18,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$18,000 – Funding provides for channel condition surveys and minimal dredging.

FDR: N/A.

Rec: N/A.

Hydro: N/A.

ES: N/A.

WS: N/A.

OTHER INFORMATION: The project will likely be unusable by commercial navigation during low water.

MR&T O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO, and TN – Operation and Maintenance

PROJECT NAME: Helena Harbor, Phillips County, AR

AUTHORIZATION: WRDA 1986, as amended

LOCATION AND DESCRIPTION: The harbor is located in Phillips County, about five miles south of Helena, Arkansas, at mile 652 on the lower Mississippi River. The harbor is used by farm communities and other industries in this region for movement of goods to and from markets. Federal maintenance is authorized. The approved channel dimensions for navigation are 9 feet deep by 300 feet wide by 3.85 miles long, with an additional 50 feet of width for berthing; a fleeting area, 100 feet by 1,000 feet; and a turning basin, 600 feet by 600 feet. The local interest is the Helena-West Helena Phillips County Port Authority.

RECOVERY ACT ALLOCATIONS TO DATE: \$1,062,000

ALLOCATION FOR FY 2011: T: \$198,000

BUDGET FOR FY 2012: M: \$0 O: \$122,000 T: \$122,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$122,000 – Funding provides for performance of surveys and minimum dredging requirements including labor for coordination and execution of the project.

FDR: N/A.

Rec: N/A.

Hydro: N/A.

ES: N/A.

WS: N/A.

OTHER INFORMATION: None.

MR&T O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO, and TN – Operations and Maintenance

PROJECT NAME: Inspection of Completed Works, AR, IL, KY, LA, MS, MO, and TN

AUTHORIZATION: RHA 1899 (Sec 14 & 16). FCA 1928 and amendments.

LOCATION AND DESCRIPTION: The Inspection of Completed Works (ICW) includes inspection and monitoring of the MR&T flood control system to assure its capability to perform as designed and constructed. The MR&T projects consist of approximately 3,486 miles of levees and floodwalls (including tributary levees), flood control structures, floodways, drainage structures, pumping stations, flood control channels, reservoirs, dikes, and revetments. Most of the flood control features referenced above are federally constructed, but are operated and maintained by state levee districts or local governmental agencies. The ICW program includes responsibility for inspecting all of the flood control features to ensure appropriate maintenance is being performed.

RECOVERY ACT ALLOCATIONS TO DATE: \$317,000

ALLOCATION FOR FY 2011: T: \$1,260,000

BUDGET FOR FY 2012: M: \$0 O: \$1,350,000 T: \$1,350,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A.

FDR: \$1,350,000 – Funding provides for inspections and monitoring of the MR&T flood control system, flood control permitting, and levee certification.

Rec: N/A.

Hydro: N/A.

ES: N/A.

WS: N/A.

OTHER INFORMATION: None.

MR&T O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Flood Control, Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO and TN - Operation and Maintenance

PROJECT NAME: Lower Arkansas River, North Bank, AR

AUTHORIZATION: Flood Control Acts of 1928, 1936, 1946, and 1965.

LOCATION AND DESCRIPTION: The flood control project is located in southeast Arkansas.

RECOVERY ACT ALLOCATIONS TO DATE: \$3,125,852

ALLOCATION FOR FY 2011: T: \$223,000

BUDGET FOR FY 2012: M: \$223,000 O: \$0 T: \$223,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FDR: \$223,000 - Funding provides for minimal operation and maintenance of the project including levee slide repairs.

Rec: N/A.

Hydro: N/A.

ES: N/A.

WS: N/A.

OTHER INFORMATION: None.

Mississippi River Commission

Vicksburg District

Lower Arkansas River
North Bank, AR

MR&T O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Flood Control, Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO and TN - Operation and Maintenance

PROJECT NAME: Lower Arkansas River, South Bank, AR

AUTHORIZATION: Flood Control Acts of 1928, 1936, 1946, and 1965.

LOCATION AND DESCRIPTION: The flood control project is located in southeast Arkansas.

RECOVERY ACT ALLOCATIONS TO DATE: \$332,000

ALLOCATION FOR FY 2011: T: \$200,000

BUDGET FOR FY 2012: M: \$150,000 O: \$0 T: \$150,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FDR: \$150,000 - Funding provides for minimal operation and maintenance of the project including levee slide repairs and data collection.

Rec: N/A.

Hydro: N/A.

ES: N/A.

WS: N/A.

OTHER INFORMATION: None.

MR&T O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Flood Control, Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO and TN - Operation and Maintenance

PROJECT NAME: Lower Red River, South Bank Levees, LA

AUTHORIZATION: Flood Control Act of 1928, (Public Law 391), 70th Congress

LOCATION AND DESCRIPTION: The levee system extends from Red River mile 67 at Moncla, LA, in Avoyelles Parish to mile 126 at Hot Wells, LA, in Rapides Parish.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

ALLOCATION FOR FY 2011: T: \$377,000

BUDGET FOR FY 2012: M: \$327,000 O: \$50,000 T: \$377,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FDR: \$377,000 - Funding provides for minimal operation and maintenance of the project including levee slide repair.

Rec: N/A.

Hydro: N/A.

ES: N/A.

WS: N/A.

OTHER INFORMATION: None.

Mississippi River Commission

Vicksburg District

Lower Red River
South Bank Levees, LA

MR&T O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO, and TN – Operations and Maintenance

PROJECT NAME: Mapping, AR, IL, KY, LA, MS, MO, and TN

AUTHORIZATION: FCA of 1928, H.D. 90/70/1 and subsequent acts.

LOCATION AND DESCRIPTION: The project is located within the geographical limits of the Memphis, Vicksburg and New Orleans Districts. Project provides for the preparation of topographic maps of the Mississippi River Alluvial Valley in furtherance of the control of floods on the Mississippi River and Tributaries.

RECOVERY ACT ALLOCATIONS TO DATE: \$294,000

ALLOCATION FOR FY 2011: T: \$1,237,000

BUDGET FOR FY 2012: M: \$0 O: \$1,202,000 T: \$1,202,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A.

FDR: \$1,202,000 – Funding provides for the annual maintenance of existing/new inventory and the collection of funds for the sales of maps, publications, historical photos, aerial photography, and other material on rivers and harbors, and flood control infrastructure on the Mississippi River and Tributaries.

Rec: N/A.

Hydro: N/A.

ES: N/A.

WS: N/A.

OTHER INFORMATION: None.

Mississippi River Commission

Memphis, Vicksburg, and
New Orleans Districts

Mapping, AR, IL, KY, LA,
MS, MO, and TN

MR&T O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO, and TN – Operations and Maintenance

PROJECT NAME: Memphis Harbor, McKellar Lake, Memphis, TN

AUTHORIZATION: FCA 1928, HD 90/70/1, as amended by subsequent acts, as modified and expanded by SD 51/80/1, approved 24 July 1946. Federal assumption of non-federal maintenance would require authorization.

LOCATION AND DESCRIPTION: This project is located near Memphis, TN, at Mississippi River mile 725.5. The navigation channel extends 7.5 miles into the harbor with a 9-foot project depth and 300 to 500-foot width at various locations. The purpose of the project is to maintain an adequate navigation channel.

RECOVERY ACT ALLOCATIONS TO DATE: \$2,348,000

ALLOCATION FOR FY 2011: T: \$1,433,000

BUDGET FOR FY 2012: M: \$1,072,000 O: \$322,000 T: \$1,394,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (By Business Line) FOR FY 2012:

N: \$1,394,000 – Funding provides for performance of surveys and minimum dredging requirements including labor for coordination and execution of the project.

FDR: N/A.

Rec: N/A.

Hydro: N/A.

ES: N/A.

WS: N/A.

OTHER INFORMATION: None.

Mississippi River Commission

Memphis District

Memphis Harbor,
McKellar Lake, Memphis, TN

MR&T O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Flood Control, Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO and TN - Operation and Maintenance

PROJECT NAME: Mississippi Delta Region, LA

AUTHORIZATION: Flood Control Act of 1965, and Water Resources Development Acts of 1974, 1986 and 1996.

LOCATION AND DESCRIPTION: The Mississippi Delta Region (MDR) Project is located in the lower Mississippi River delta region in Plaquemines and St. Charles Parishes, LA. and includes the Caernarvon and Davis Pond Freshwater Diversions. The Caernarvon structure is located in Plaquemines Parish on the east bank of the Mississippi River in the vicinity of Caernarvon, LA. The Davis Pond structure is located in St. Charles Parish on the west bank just downstream of Luling, LA. Located in coastal Louisiana, these structures divert freshwater, nutrients, and sediments, from the Mississippi River to bays and marshes of Breton Sound and Barataria Basins, respectively, for fish and wildlife enhancement. The project restores ecological conditions by controlling salinity and supplementing nutrients and sediments.

RECOVERY ACT ALLOCATIONS TO DATE: \$2,239,000

ALLOCATION FOR FY 2011: \$921,000

BUDGET FOR FY 2012: M: \$0 O: \$425,000 T: \$438,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FDR: \$438,000 - Funds provide for operating and maintaining the Caernarvon Freshwater Diversion Structure and the Davis Pond Freshwater Diversion Structure. The Caernarvon structure is operated by Plaquemines Parish and the Davis Pond structure is operated by St. Charles Parish, both under contract with the local sponsor, Louisiana Office of Coastal Protection and Restoration (LAOCPR). Funding for project operation and maintenance is cost-shared at 75% Federal/25% State.

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Beyond the ecological and economic benefits that the MDR Project provides, the project diversions restore connectivity between the Mississippi River and its estuaries, for increased coastal sustainability. The restored coastal areas enhance wildlife and fisheries productivity.

Mississippi River Commission

New Orleans District

Mississippi Delta Region, LA

MR&T O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Flood Control, Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO and TN - Operation and Maintenance

PROJECT NAME: Mississippi River Levees, AR, IL, KY, LA, MS, MO, and TN

AUTHORIZATION: Flood Control Acts of 1928, Sec 1 & 3; 1936, Sec 3, 8, 12; 1938, Sec 4; 1941, Sec 3; 1944, Sec 4; 1946, Sec 10; 1950, Sec 204; 1954, Sec 203; 1962, Sec 207; 1965, Sec 201, 204; 1968, Sec 213; River Basin Monetary Authorization Act of 1971, PL 92-222, Sec 7; WRDA 92, Sec 103 (c)(2); WRDA 00, Sec 508.

LOCATION AND DESCRIPTION: The Mississippi River Levee system on the west bank extends from Allenville, MO, southward to Venice, LA, and on the east bank from Hickman, KY, to opposite Venice, LA, except where interrupted by hills and tributary streams. The Mississippi River Levee System provides flood risk reduction to over 23 thousand square miles in the alluvial valley subject to flooding by the project flood. The alluvial valley is over 650 miles long and varies in width from 20 to 90 miles. Numerous railroads, highways, and airfields connecting the major transportation centers lie within the protected area as do several major transcontinental communication routes. In addition to highly developed agricultural areas, the levees afford protection to urban areas and many industries. The project provides for the maintenance of authorized facilities for the protection against headwater floods of the Mississippi River by means of levees, berms, culverts, outlet structures and floodwalls. Major maintenance of the authorized features of the Mississippi River Levees Project is 100% Federally funded. Local interests are responsible for providing minor maintenance and rights-of-way.

RECOVERY ACT ALLOCATIONS TO DATE: \$20,625,000

ALLOCATION FOR FY 2011: T: \$7,582,000

BUDGET FOR FY 2012: M: \$6,488,000 O: \$1,463,000 T: \$7,951,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FDR: \$7,951,000 - Funding provides for overall operation and maintenance of levees, levee slide repairs, pump station operation, flood fights, water analysis data collection, water control, aerial video, aerial brush kill, cultural resource investigations and environmental surveys, and periodic inspections.

Rec: N/A.

Hydro: N/A.

ES: N/A.

WS: N/A.

OTHER INFORMATION: None.

Mississippi River Commission

Memphis, Vicksburg, and
New Orleans Districts

Mississippi River Levees, AR,
KY, LA, MS, MO, and TN

MR&T O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Flood Control, Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO and TN - Operation and Maintenance

PROJECT NAME: Old River Control Structure, LA

AUTHORIZATION: Authorized by Public Law. 780, 83rd Congress approved 3 September 1954, to provide for control of flows from the Mississippi River to the Atchafalaya River and Basin by mechanically operated control structures on the right bank of the Mississippi River. This is a modification of Flood Control Act of 15 May 1928.

LOCATION AND DESCRIPTION: The project is located adjacent to Mississippi River, 85 miles above Baton Rouge, LA.

RECOVERY ACT ALLOCATIONS TO DATE: \$18,071,000

ALLOCATION FOR FY 2011: \$9,255,000

BUDGET FOR FY 2012: M: \$2,717,000 O: \$4,237,000 T: \$6,954,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$1,849,000 - Operation and routine maintenance of Old River Lock; reconnaissance surveys performed in the forebay and tailbay channel to determine channel conditions; real estate management; and inspection of the Old River Lock & Bridge.

FDR: \$4,777,000 - Provides operation and maintenance resources required to support hired labor forces that maintain the integrity of the existing structures and facilities; instrumentation data gathering and evaluation; collect, manage store, disseminate, and analyze water level gages; and paint auxiliary control structure crane.

Rec: \$173,000 – Operations for recreation function.

Hydro: N/A

ES: \$ 155,000 – Management of special status species and natural resources.

WS: N/A

OTHER INFORMATION: None

MR&T O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO, and TN – Operation and Maintenance

PROJECT NAME: St. Francis Basin, AR and MO

AUTHORIZATION: Flood Control Act, 15 May 1928, as amended by the Acts of 15 June 1936, 18 August 1941, 24 July 1946, 17 May 1950, 27 October 1965 and 13 August 1968. Local cooperation requirements were modified by the Flood Control Act of 24 July 1946, and limited local responsibility to ordinary maintenance as defined by Section 3 of the Flood Control Act of 15 May 1928.

LOCATION AND DESCRIPTION: The project extends from the hills southwest of Cape Girardeau, Missouri, to the confluence of the St. Francis and Mississippi Rivers – approximately 10 miles north of Helena, Arkansas. The project provides for a certain level of Federal maintenance of authorized facilities – levees and channels – to provide the authorized level of flood protection. There are two pumping stations - Drainage District #17 and W. G. Huxtable Pumping Plant - built, maintained and operated by the Corps of Engineers. Major maintenance of the authorized features of the St. Francis Basin Project is done at no cost to the local sponsor (100% Federally funded). Local interests are only responsible for minor maintenance and rights-of-entry.

RECOVERY ACT ALLOCATIONS TO DATE: \$26,861,000

ALLOCATION FOR FY 2011: \$6,293,000

BUDGET FOR FY 2012: M: \$978,000 O: \$3,196,000 T: \$4,174,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A.

FDR: \$4,174,000 – Funding provides for hired labor activities associated with maintenance contracts awarded prior to FY 2012, pump stations operations, floodfights, aerial brushkill, periodic inspections, cultural resource investigations, environmental surveys and engineering and design activities for various items in Arkansas and Missouri.

Rec: N/A.

Hydro: N/A.

ES: N/A.

WS: N/A.

OTHER INFORMATION: None.

Mississippi River Commission

Memphis District

St. Francis River and Tributaries,
AR and MO

MR&T O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Flood Control, Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO and TN - Operation and Maintenance

PROJECT NAME: Tensas Basin, Boeuf-Tensas River, AR and LA

AUTHORIZATION: Flood Control Acts of 1944, 1946, 1950, 1958, 1962, 1965, 1968, and WRDA of 1986.

LOCATION AND DESCRIPTION: The flood control project is located in central and northeast Louisiana and southeast Arkansas and includes the Lake Chicot pumping plant.

RECOVERY ACT ALLOCATIONS TO DATE: \$5,863,760

ALLOCATION FOR FY 2011: T: \$2,374,000

BUDGET FOR FY 2012: M: \$0 O: \$1,884,000 T: \$1,884,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FDR: \$1,884,000 - Funding provides for minimal routine operation and maintenance of the project including inspections, data collection, analysis and real estate management.

Rec: N/A.

Hydro: N/A.

ES: N/A.

WS: N/A.

OTHER INFORMATION: None.

MR&T O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Flood Control, Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO and TN - Operation and Maintenance

PROJECT NAME: Tensas Basin, Red River Backwater Area, LA

AUTHORIZATION: Flood Control Acts of 1941, 1944, 1946, 1950, 1958, 1962, 1965, 1968, and WRDA of 1986

LOCATION AND DESCRIPTION: The flood control project is located in central and northeast Louisiana. The lower basin features include levees, drainage structures and Tensas-Cocodrie pumping plant.

RECOVERY ACT ALLOCATIONS TO DATE: \$1,155,000

ALLOCATION FOR FY 2011: T: \$3,286,000

BUDGET FOR FY 2012: M: \$0 O: \$2,473,000 T: \$2,473,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FDR: \$2,473,000 - Funding provides for minimal operation and maintenance of the project including levee slide repair, inspections, data collection, analysis and real estate management.

Rec: N/A.

Hydro: N/A.

ES: N/A.

WS: N/A.

OTHER INFORMATION: None.

MR&T O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Flood Control, Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO and TN - Operation and Maintenance

PROJECT NAME: Vicksburg Harbor, Mississippi

AUTHORIZATION: FCA 1928, as amended by the FCAs 1946, 1954, and WRDA 1986

LOCATION AND DESCRIPTION: The Vicksburg Harbor is located in west-central Mississippi at Vicksburg, MS, with access to the Mississippi River by way of the Yazoo River Diversion Canal. The harbor channel is 500 feet wide and 12,000 feet long with a 500-foot-wide, 15,000-foot-long channel on the Yazoo River Diversion Canal from the Mississippi River to the harbor entrance. A minimum depth of 9 feet at the lowest Mississippi River stage is maintained. The project's purpose is to provide local businesses, industries and vessels navigating the Mississippi River access to the harbor facilities at Vicksburg.

RECOVERY ACT ALLOCATIONS TO DATE: \$535,000

ALLOCATION FOR FY 2011: \$32,000

BUDGET FOR FY 2012: M: \$0 O: \$32,000 T: \$32,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$32,000 – Funding provides only for channel condition surveys.

FDR: N/A.

Rec: N/A.

Hydro: N/A.

ES: N/A.

WS: N/A.

OTHER INFORMATION: The project will likely be unuseable by commercial navigation during low water. The Vicksburg District's Mat Sinking Unit and Dredge *Jadwin* are moored at the Vicksburg Harbor during the off-season.

MR&T O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Flood Control, Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO, and TN - Operation and Maintenance

PROJECT NAME: Wappapello Lake, Missouri

AUTHORIZATION: Overton Act of 1936, FCA 1944.

LOCATION AND DESCRIPTION: This project is located on the St. Francis River, mile 309, in the Ozark uplands of Wayne County, Missouri, and provides flood control, recreation, water quality, and conservation of fish and wildlife. Wappapello Lake consists of 44,349 acres of land and 8,400 acres of water. The dam site lies 22 miles southeast of Greenville, 16 miles northeast of Poplar Bluff, and one mile southwest of Wappapello, Missouri.

RECOVERY ACT ALLOCATIONS TO DATE: \$22,099,000

ALLOCATION FOR FY2011: T: \$4,966,000

BUDGET FOR FY2012: M: \$507,000 O: \$3,660,000 T: \$4,167,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY2012:

N: N/A

FDR: \$1,708,000 – Funding provides for routine operations and maintenance dam safety, water control data/analysis, security, and Real Estate costs for compliance management. Funds will ensure O&M for FRM facilities, infrastructure and availability. Critical infrastructure maintenance needs will be addressed to reduce the risk of dam failure and assist in operational availability. Control structure is original 1940's with critical backlog maintenance items. Earthquake zone = DSAC III.

Rec: \$1,863,000 – Funding provides for routine operations and maintenance of recreation areas, facilities and programs. Visitor Assistance, Public Health and Safety, Accessibility, Use Fee Collection, and Visitor Center O&M. Contract costs associated with the recreation program include: law enforcement, park attendants, combined services (mowing, cleaning, garbage removal), janitorial, utilities, tree trimming, etc.

Hydro: N/A

ES: \$596,000 – Funding provides for routine operation and maintenance of environmental stewardship program & features; environmental compliance, management of endangered/invasive species (Feral Hogs, Emerald Ash Borer), cultural/historical resources and land management (forest, wetlands).

WS: N/A

OTHER INFORMATION: None.

MR&T O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO, and TN – Operation and Maintenance

PROJECT NAME: White River Backwater, AR

AUTHORIZATION: Flood Control Act of 15 May 1928, as amended. Local cooperation requirements, as modified by the Flood Control Act of 30 October 1951, were limited to ordinary maintenance as defined by Section 3 of the Flood Control Act of 15 May 1928.

LOCATION AND DESCRIPTION: The project is located approximately 20 miles south of Helena, near Elaine, AR, in Phillips and Desha Counties. It consists of 40.2 miles of levee, the Graham Burke Pumping Station, the Little Island Bayou Outlet Structure and Deep Bayou Culvert. The White River Backwater levee, together with the Mississippi River Levee between Old Town and Laconia Circle, protects the enclosed area against all but very large floods. The combined levee system reduces extreme crests on the White River by admitting drainage into the enclosed area thereby restoring the White River Backwater Pool.

RECOVERY ACT ALLOCATIONS TO DATE: \$4,960,000

ALLOCATION FOR FY 2011: \$1,276,000

BUDGET FOR FY 2012: M: \$437,000 O: \$459,000 T: \$896,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A.

FDR: \$896,000 – Funding provides for hired labor activities associated with maintenance contracts awarded prior to FY 2012, pump station operation, water data collection, air quality permits, periodic inspections, and for levee slide repairs.

Rec: N/A.

Hydro: N/A.

ES: N/A.

WS: N/A.

OTHER INFORMATION: None.

Mississippi River Commission

Memphis District

White River Backwater, AR

MR&T O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Flood Control, Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO and TN - Operation and Maintenance

PROJECT NAME: Yazoo Basin, Arkabutla Lake, MS

AUTHORIZATION: Flood Control Acts of 1928, (Sec 3); 1936, (Sec 4); 1937, (Sec 6); 1938, (Sec 2); 1941, (Sec 3); 1944, (Sec 10); and 1946 (Sec 10).

LOCATION AND DESCRIPTION: Arkabutla Lake is located in Tate and DeSoto Counties in north Mississippi, approximately 4 miles north of Arkabutla, Mississippi, and 30 miles south of Memphis, Tennessee. Arkabutla Lake is on the Coldwater River and stores floodwaters to provide for flood damage reduction in the Yazoo Basin. Recreation and tourism associated with the lake play a major role in the region.

RECOVERY ACT ALLOCATIONS TO DATE: \$11,984,000

ALLOCATION FOR FY 2011: T: \$5,961,000

BUDGET FOR FY 2012: M: \$0 O: \$4,606,000 T: \$4,606,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FDR: \$2,185,000 - Funding provides for minimal operation and maintenance of the project including inspections, data collection, analysis and real estate management.

Rec: \$1,912,000 - Funding provides for minimal operation and maintenance of the recreation facilities.

Hydro: N/A.

ES: \$509,000 - Funding provides for minimal operation and maintenance of the project including management of natural resources, wildlife mitigation lands, cultural resources and updating the master plan for the project.

WS: N/A.

OTHER INFORMATION: None.

MR&T O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Flood Control, Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO and TN - Operation and Maintenance

PROJECT NAME: Yazoo Basin, Big Sunflower River (Including Bogue Phalia), MS

AUTHORIZATION: Flood Control Acts of 1944, 1946, 1950, and 1962 and 1965 (Sec 201)

LOCATION AND DESCRIPTION: The Big Sunflower River Basin comprises an area of approximately 4,200 square miles in northwest Mississippi. The existing flood control project is not currently functioning as originally constructed due to loss of channel design capacity both from vegetative growth and sediment accumulation. The current project will restore the channels to original design capacities.

RECOVERY ACT ALLOCATIONS TO DATE: \$151,000

ALLOCATION FOR FY 2011: T: \$184,000

BUDGET FOR FY 2012: M: \$0 O: \$185,000 T: \$185,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FDR: \$168,000 - Funding provides for minimal routine operation and maintenance of the project including inspections, data collection and analysis.

Rec: N/A.

Hydro: N/A.

ES: \$17,000 - Funding provides for routine operation and maintenance including oversight of mitigation.

WS: N/A.

OTHER INFORMATION: None

MR&T O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Flood Control, Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO and TN - Operation and Maintenance

PROJECT NAME: Yazoo Basin, Enid Lake, MS

AUTHORIZATION: Flood Control Acts of 1928, (Sec 3); 1936, (Sec 4); 1937, (Sec 6); 1938, (Sec 2); 1941, (Sec 3); 1944, (Sec 10); and 1946 (Sec 10).

LOCATION AND DESCRIPTION: Enid Lake is located in Yalobusha, Panola, and Lafayette Counties in north-central Mississippi east of Enid, Mississippi, and south of Batesville, Mississippi. Enid Lake is on the Yocona River and stores floodwater to provide for flood damage reduction in the Yazoo Basin. Recreation and tourism associated with the lake play a major economic role in the region.

RECOVERY ACT ALLOCATIONS TO DATE: \$10,644,000

ALLOCATION FOR FY 2011: T: \$5,784,000

BUDGET FOR FY 2012: M: \$0 O: \$4,386,000 T: \$4,386,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FDR: \$1,830,000 - Funding provides for minimal operation and maintenance of the project including inspections, data collection, analysis and real estate management.

Rec: \$2,189,000 - Funding provides for minimal operation and maintenance of the recreation facilities.

Hydro: N/A.

ES: \$367,000 - Funding provides for minimal operation and maintenance of the project including management of natural resources, wildlife mitigation lands, and cultural resources.

WS: N/A.

OTHER INFORMATION: None.

Mississippi River Commission

Vicksburg District

Yazoo Basin,
Enid Lake, MS

MR&T O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Flood Control, Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO and TN - Operation and Maintenance

PROJECT NAME: Yazoo Basin, Greenwood, MS

AUTHORIZATION: Flood Control Acts of 1928, 1936, 1937, 1938, 1941, 1944, 1946.

LOCATION AND DESCRIPTION: The project is located in the Yazoo Basin, Mississippi, and includes the operation and maintenance of city of Greenwood Protection Works and includes 55 miles of levees and 14 miles of channels, 2 miles of ditch, 59 drainage structures, 4 pumping plants and 7 weirs.

RECOVERY ACT ALLOCATIONS TO DATE: \$1,097,000

ALLOCATION FOR FY 2011: T: \$790,000

BUDGET FOR FY 2012: M: \$0 O: \$807,000 T: \$807,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FDR: \$807,000 - Funding provides for minimal operation and maintenance of the project including inspections, data collection and analysis.

Rec: N/A.

Hydro: N/A.

ES: N/A

WS: N/A.

OTHER INFORMATION: None.

MR&T O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Flood Control, Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO and TN - Operation and Maintenance

PROJECT NAME: Yazoo Basin, Grenada Lake, MS

AUTHORIZATION: Flood Control Acts of 1928, (Sec 3); 1936, (Sec 4); 1937, (Sec 6); 1938, (Sec 2); 1941, (Sec 3); 1944, (Sec 10); and 1946 (Sec 10).

LOCATION AND DESCRIPTION: Grenada Lake is located in north-central Mississippi northeast of Grenada, Mississippi. Grenada Dam is located in Grenada County, and the lake encompasses portions of Grenada, Yalobusha, and Calhoun Counties. Grenada Dam is on the Yalobusha River and stores floodwaters to provide for flood damage reduction in the Yazoo Basin. Recreation and tourism associated with the lake play a major role in the region.

RECOVERY ACT ALLOCATIONS TO DATE: \$10,711,000

ALLOCATION FOR FY 2011: T: \$6,301,000

BUDGET FOR FY 2012: M: \$ O: \$4,511,000 T: \$4,511,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FDR: \$2,161,000 - Funding provides for minimal operation and maintenance of the project including inspections, data collection, analysis and real estate management.

Rec: \$1,870,000 - Funding provides for minimal operation and maintenance of the recreation facilities.

Hydro: N/A.

ES: \$480,000 - Funding provides for minimal operation and maintenance of the project including management of natural resources, wildlife mitigation lands, and cultural resources.

WS: N/A.

OTHER INFORMATION: None.

MR&T O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Flood Control, Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO and TN - Operation and Maintenance

PROJECT NAME: Yazoo Basin, Main Stem, Mississippi

AUTHORIZATION: Flood Control Act of 1941, 1944, and 1965

LOCATION AND DESCRIPTION: The project is located in the Yazoo Basin, MS, and includes the operation and maintenance of 136 miles of levees, 287 miles of channels, and 74 drainage structures.

RECOVERY ACT ALLOCATIONS TO DATE: \$2,641,000

ALLOCATION FOR FY 2011: T: \$1,469,000

BUDGET FOR FY 2012: M: \$0 O: \$1,019,000 T: \$1,019,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FDR: \$894,000 - Funding provides for minimal routine operation and maintenance of the project including inspections, data collection and analysis.

Rec: N/A.

Hydro: N/A.

ES: \$125,000 - funding provides for minimal operation and maintenance of approximately 3,500 acres of mitigation property that was licensed to the Mississippi Department of Wildlife, Fisheries and Parks under a real estate instrument and Memorandum of Agreement in FY 2009.

WS: N/A.

OTHER INFORMATION: None.

MR&T O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Flood Control, Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO and TN - Operation and Maintenance

PROJECT NAME: Yazoo Basin, Sardis Lake, MS

AUTHORIZATION: Flood Control Acts of 1928, (Sec 3); 1936, (Sec 4); 1937, (Sec 6); 1938, (Sec 2); 1941, (Sec 3); 1944, (Sec 10); and 1946 (Sec 10).

LOCATION AND DESCRIPTION: Sardis Lake is located in north-central Mississippi southeast of Sardis, Mississippi. Sardis Dam is located in Panola County, and the lake encompasses portions of Panola, Lafayette, and Marshall Counties. Sardis Dam is on the Little Tallahatchie River and stores floodwater to provide for flood damage reduction in the Yazoo Basin. Recreation and tourism associated with the lake play a major role in the region.

RECOVERY ACT ALLOCATIONS TO DATE: \$11,902,324

ALLOCATION FOR FY 2011: T: \$7,113,000

BUDGET FOR FY 2012: M: \$0 O: \$5,687,000 T: \$5,687,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FDR: \$2,761,000 - Funding provides for minimal operation and maintenance of the project including inspections, data collection, analysis and real estate management.

Rec: \$2,376,000 - Funding provides for minimal operation and maintenance of the recreation facilities.

Hydro: N/A.

ES: \$550,000 - Funding provides for minimal operation and maintenance of the project including management of natural resources, wildlife mitigation lands, cultural resources and updating the master plan for the project.

WS: N/A.

OTHER INFORMATION: None.

MR&T O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Flood Control, Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO and TN - Operation and Maintenance

PROJECT NAME: Yazoo Basin, Tributaries, MS

AUTHORIZATION: Flood Control Act of 1941, 1944, 1965

LOCATION AND DESCRIPTION: The project is located in the Yazoo Basin, MS, and includes the operation and maintenance of 136 miles of levees, 287 miles of channels, and 74 drainage structures.

RECOVERY ACT ALLOCATIONS TO DATE: \$1,337,000

ALLOCATION FOR FY 2011: T: \$967,000

BUDGET FOR FY 2012: M: \$0 O: \$967,000 T: \$967,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FDR: \$967,000 - Funding provides for minimal operation and maintenance of the project including inspections, data collection and analysis.

Rec: N/A.

Hydro: N/A.

ES: N/A.

WS: N/A.

OTHER INFORMATION: None.

R&T O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Flood Control, Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO and TN - Operation and Maintenance

PROJECT NAME: Yazoo Basin, Will M. Whittington Auxiliary Channel, MS

AUTHORIZATION: Flood Control Act of 1928, 1936, 1937, 1938, 1941, 1944, 1946, 1962 and 1965.

LOCATION AND DESCRIPTION: The project is located in the Yazoo Basin, Headwater Area, MS. The project includes leveed floodway and landside drainage ditches from the vicinity of Silver City on the Yazoo River to near the mouth of Big Sunflower River.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

ALLOCATION FOR FY 2011: T: \$400,000

BUDGET FOR FY 2012: M: \$0 O: \$378,000 T: \$378,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FDR: \$378,000 - Funding provides for minimal operation and maintenance of the project including inspections, data collection and analysis.

Rec: N/A.

Hydro: N/A.

ES: N/A.

WS: N/A.

OTHER INFORMATION: None.

MR&T O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Flood Control, Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO and TN - Operation and Maintenance

PROJECT NAME: Yazoo Basin, Yazoo Backwater Area, MS

AUTHORIZATION: Flood Control Act of 1941, 1944, 1965

LOCATION AND DESCRIPTION: The project is located in the Yazoo Basin, MS, and includes the operation and maintenance of seven drainage structures.

RECOVERY ACT ALLOCATIONS TO DATE: \$1,693,000

ALLOCATION FOR FY 2011: T: \$583,000

BUDGET FOR FY 2012: M: \$0 O: \$517,000 T: \$517,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FDR: \$434,000 - Funding provides for minimal operation and maintenance of the project including inspections, data collection and analysis.

Rec: N/A.

Hydro: N/A.

ES: \$83,000 - Funding provides operation and maintenance of property acquired to mitigate construction losses as a result of an environmental analysis and Section 7 consultation with the United States Fish and Wildlife Service.

WS: N/A.

OTHER INFORMATION: None.

MR&T O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Flood Control, Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO and TN - Operation and Maintenance

PROJECT NAME: Yazoo Basin, Yazoo City, Mississippi

AUTHORIZATION: Flood Control Acts of 1928, 1936, 1937, 1938, 1941, 1944, 1946

LOCATION AND DESCRIPTION: The project is located in the Yazoo Basin. The project includes the operation and maintenance of Yazoo City Protection Works and includes levees, channels, drainage structures, pumping plants and weirs.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

ALLOCATION FOR FY 2011: T: \$731,000

BUDGET FOR FY 2012: M: \$0 O: \$731,000 T: \$731,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FDR: \$731,000 – Funding provides for minimal operation and maintenance of the project including inspections, data collection and analysis.

Rec: N/A.

Hydro: N/A.

ES: N/A.

WS: N/A.

OTHER INFORMATION: None.

North Atlantic Division

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Hampton Roads, VA (Prevention of Obstructive Deposits).....	NAD - 138
Hancock Brook Lake, CT	NAD - 139
Hodges Village Dam, MA.....	NAD - 140
Hop Brook Lake, CT	NAD - 141
Hopkinton - Everett Lakes, NH.....	NAD - 142
Hudson River Channel, NY	NAD - 143

Operation and Maintenance (continued)

Hudson River, NY (Maint)	NAD - 144
Hudson River, NY (O & C)	NAD - 145
Intracoastal Waterway, Delaware R To Chesapeake Bay, DE & MD	NAD - 146
Jamaica Bay, NY	NAD - 147
James River Channel, VA	NAD - 148
Jennings Randolph Lake, MD & WV	NAD - 149
Knightville Dam, MA	NAD - 150
Littleville Lake, MA	NAD - 151
Long Island Sound DMMP, CT	NAD - 152
Manasquan River, NJ	NAD - 153
Mansfield Hollow Lake, CT	NAD - 154
New Bedford Fairhaven And Acushnet Hurricane Barrier, MA	NAD - 155
New York and New Jersey Channels, NY	NAD - 156
New York Harbor, NY	NAD - 157
New York Harbor, NY & NJ (Drift Removal)	NAD - 158
New York Harbor, NY (Prevention Of Obstructive Deposits)	NAD - 159
Newark Bay, Hackensack And Passaic Rivers, NJ	NAD - 160
Newtown Creek, NY	NAD - 161
Norfolk Harbor, VA	NAD - 162
North Hartland Lake, VT	NAD - 163
North Springfield Lake, VT	NAD - 164
Northfield Brook Lake, CT	NAD - 165
Otter Brook Lake, NH	NAD - 166
Passaic River Flood Warning Systems, NJ	NAD - 167
Portsmouth Harbor and Piscataqua River NH	NAD - 168
Potomac And Anacostia Rivers, Dc (Drift Removal)	NAD - 169
Prompton Lake, PA	NAD - 170
Raritan River, NJ	NAD - 171
Raritan River To Arthur Kill Cut-Off, NJ	NAD - 172
Raystown Lake, PA	NAD - 173
Schuylkill River, PA	NAD - 174
Southern New York Flood Control Projects, NY	NAD - 175
Stamford Hurricane Barrier, CT	NAD - 176
Stillwater Lake, PA	NAD - 177
Surry Mountain Lake, NH	NAD - 178
Susquehanna-Havre De Grace, MD	NAD - 179
Thomaston Dam, CT	NAD - 180
Tioga - Hammond Lakes, PA	NAD - 181
Townshend Lake, VT	NAD - 182
Tully Lake, MA	NAD - 183
Union Village Dam, VT	NAD - 184
Washington Harbor, DC	NAD - 185
West Hill Dam, MA	NAD - 186
West Thompson Lake, CT	NAD - 187
Westville Lake, MA	NAD - 188
Whitney Point Lake, NY	NAD - 189
Wicomico River, MD	NAD - 190
Wilmington Harbor, DE	NAD - 191
Woonsocket, RI	NAD - 192
York Indian Rock Dam, PA	NAD - 193

Justification of Estimate

Flood and Coastal Storm Damage Reduction

Investigations

APPROPRIATION TITLE: Investigations, Fiscal Year 2012

Division: North Atlantic

Study	Total Estimated Federal Cost	Allocation Prior to FY 2009	Allocation FY 2009	Allocation FY 2010	Allocation FY 2011	Tentative Allocation FY 2012	Additional to Complete After FY 2012
	\$	\$	\$	\$	\$	\$	\$
SURVEYS – (Flood and Coastal Storm Damage Reduction)							
NEW JERSEY							
Delaware River Comprehensive, NJ		721,000	277,000	296,000	290,000	290,000	
Philadelphia District			0	0			
	2,395,000	721,000	277,000	296,000	290,000	290,000	521,000

The Delaware River basin is located in 42 counties in portions of New York, New Jersey, Delaware and Pennsylvania, draining an approximate 13,539 square mile area. The river basin has experienced considerable degradation over the past two hundred years due to urbanization and industrialization. In addition, the river basin includes the Atlantic Flyway, the final stopover for millions of migratory birds. The river basin is divided into the upper and lower basins. The upper basin area includes small rural and agricultural communities, some heavily populated and industrialized areas, and abandoned mining complexes, which are experiencing developmental, recreational, and environmental pressures; and acid mine drainage problems from over twenty locations. The lower basin, which includes the area from Trenton to Philadelphia through Delaware Bay is heavily urbanized and industrialized, and includes commercial navigation projects. These projects place millions of cubic yards of sediments annually into upland disposal sites that has degraded thousands of acres of wetlands and terrestrial habitat.

The study will investigate and recommend solutions to watershed problems, which include, flood damage reduction, floodplain management, aquatic ecosystem restoration, dredged material disposal, water quality control, and acid mine drainage abatement with dredged material. The study will be coordinated with ongoing initiatives being conducted by the State of New Jersey Division of Watershed Management. The sponsor for the feasibility study is the New Jersey Department of Environmental Protection (NJDEP), who understands the cost sharing requirements. The feasibility cost-sharing agreement was executed in July 2006.

Fiscal Year 2011 funds are being used to continue the feasibility study, including identification of the potential plans for project recommendations, and continued public coordination efforts. Fiscal Year 2012 funds will be used to continue the feasibility phase of the study, including final plan formulation, identification of selected plans, and public coordination. The estimated cost of the feasibility phase is \$4,790,000, which is to be cost-shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	\$4,790,000
Reconnaissance Phase (Federal)	0
Feasibility Phase (Federal)	2,395,000
Feasibility Phase (Non-Federal)	2,395,000

The reconnaissance phase was completed under the Delaware River Basin Comprehensive, NY, NJ, PA, & DE in September 2005. The feasibility study is scheduled to be completed in September 2014.

APPROPRIATION TITLE: Investigations, Fiscal Year 2012

Division: North Atlantic

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2009 \$	Allocation FY 2009 \$	Allocation FY 2010 \$	Allocation FY 2011 \$	Tentative Allocation FY 2012 \$	Additional to Complete After FY 2012 \$
SURVEYS – (Flood and Coastal Storm Damage Reduction)							
NEW YORK							
Westchester County Streams, Byram River Basin, NY and CT New York District		Annual Allocation ARRA Allocation Total Allocations	100,000 100,000	0 0	10,000 0 10,000	200,000 200,000 200,000	200,000 2,090,000

The Byram River Basin study area is located in Westchester County, New York, and Fairfield County, Connecticut. Major storm events and nor'easters cause erosion to the basin streams and tributaries which pose a threat to public and private property, the area's infrastructure, and safety to human life. The continued sediment transport also damages the basin's ecosystem which impacts the fish and wildlife habitats and recreational activities within the basin. The study will address flood and coastal storm damage reduction measures, as well as ecosystem opportunities within the entire basin. The potential plans could provide comprehensive solutions that will protect homes and businesses from flood damages and restore degraded aquatic ecosystem habitats.

The reconnaissance report found there is a Federal interest for further feasibility phase studies. The feasibility study will evaluate potential flood and coastal storm damage reduction opportunities, as well as aquatic ecosystem opportunities to improve the basin's fish and wildlife habitat, water quality improvements, streambank and riparian habitat restoration, sediment transport control, and balancing flow regimes. The potential sponsor for the feasibility phase is the Town of Greenwich, Connecticut, who understands the cost-sharing requirements for the feasibility phase of the study. The feasibility cost-sharing agreement is scheduled to be executed in September 2011.

Fiscal Year 2011 funds are being used to complete the project management plan, negotiate and execute the feasibility cost-sharing agreement and initiate the feasibility phase studies, including data gathering for existing conditions and coordination with local interests.

Fiscal Year 2012 funds will be used to continue the feasibility phase investigations, including data gathering for existing conditions and coordination with local interests. The estimated cost of the feasibility phase is \$5,000,000, which is to be cost shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of the study cost sharing is as follows:

Total Estimated Study Cost	\$5,100,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	2,500,000
Feasibility Phase (Non-Federal)	2,500,000

The reconnaissance phase is scheduled to be executed in September 2011. The feasibility study is scheduled for completion in January 2017.

Construction

APPROPRIATION TITLE: Construction, General - Beach Erosion Control

PROJECT: Atlantic Coast of New York City, Rockaway Inlet to Norton Point, Coney Island, New York (continuing)

LOCATION: The project is located on the South shore of Long Island in Brooklyn (Kings County), New York, approximately nine miles south of the Battery, New York City.

DESCRIPTION: Programmed work consists of construction of a 100-foot-wide berm at an elevation of 13 feet above mean low water, a groin at the western end of the restored beach, and a fillet of beachfill extending westward from the groin at West 37th Street. Also included is the construction of T-groins with beachfill westward of the groin at West 37th Street. Unprogrammed work includes construction of comfort and lifeguard stations, construction of a groin at east end of project and extending beach seaward of historic shoreline.

AUTHORIZATION: Section 501(a) of Water Resources Development Act of 1986 as modified by the Intermodal Surface Transportation and Efficiency Act of 1991, amended by WRDA 2000, Section 329.

REMAINING BENEFIT-REMAINING COST RATIO: 8.6 to 1 at 7 percent

TOTAL BENEFIT-COST RATIO: 3.2 to 1 at 7 percent.

INITIAL BENEFIT-COST RATIO: 2.7 to 1 at 8 7/8 percent (FY 1992).

BASIS OF BENEFIT-COST RATIO: Final General Design Memorandum entitled Atlantic Coast of New York City, Rockaway Inlet to Norton Point (Coney Island Area), New York, dated April 1992, at October 1990 price levels.

STATUS (1 Jan 2011)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Programmed Work		
Initial Construction	85	To be determined
Periodic Nourishment	0	To be determined
Entire Project	30	To be determined
Unprogrammed Work		
Comfort and Lifeguard Stations	0	Indefinite
Groin and additional Beach Berm	0	Indefinite

1/ For programmed work only; remaining work is indefinite pending a decision to construct these features.

Division: North Atlantic

District: New York

Atlantic Coast of New York City, Rockaway Inlet to
Norton Point, Coney Island, NY

SUMMARIZED FINANCIAL DATA:

ACCUM.
PCT. OF EST.
FED COST

Estimated Federal Cost			105,800,000
Programmed Construction		71,900,000	
Initial Construction	21,700,000		
Periodic Nourishment		47,700,000	
Comfort and Lifeguard Stations	2,500,000		
Unprogrammed Construction		33,900,000	
Initial Construction	15,900,000		
Periodic Nourishment	0		
Comfort and Lifeguard Stations	18,000,000		
Estimated Non-Federal Cost			53,200,000
Programmed Construction		37,300,000	
Initial Construction		11,700,000	
Cash Contribution	11,700,000		
Other Costs	0		
Periodic Nourishment		25,600,000	
Cash Contributions	25,600,000		
Other Costs	0		
Unprogrammed Construction		15,900,000	
Initial Construction		15,900,000	
Cash Contribution	15,900,000		
Other Costs	0		
Periodic Nourishment	0		
Cash Contributions	0		
Other Costs	0		
Comfort and Lifeguard Stations	0		

PHYSICAL DATA

Berm 100 feet wide at 13 feet NGVD
 Extended berm 165 feet wide at
 8 feet NGVD.
 Groins and beachfill westward
 from groin West 37th St.
 Relocation and/or reconstruction
 of existing comfort and lifeguard
 stations.

Division: North Atlantic

District: New York

Atlantic Coast of New York City, Rockaway Inlet to
 Norton Point, Coney Island, NY

SUMMARIZED FINANCIAL DATA: (Continued)

ACCUM.
PCT. OF EST.
FED COST

Total Estimated Programmed Construction Cost	109,200,000	
Initial Construction	33,400,000	
Periodic Nourishment	73,300,000	
Comfort and Lifeguard Stations	2,500,000	
Total Estimated Unprogrammed Construction Cost	49,800,000	
Initial Construction	31,800,000	
Periodic Nourishment	0	
Comfort and Lifeguard Stations	18,000,000	
Total Estimated Project Cost	159,000,000	
Initial Construction	65,200,000	
Periodic Nourishment	73,300,000	
Comfort and Lifeguard Stations	20,500,000	
Allocation to 30 September 2008	24,306,000	
Allocation for FY 2009	3,924,000	
Allocation for FY 2010	3,000,000	
Recovery Act Allocations to Date	0	
Allocation for FY 2011	300,000	
Allocations through FY 2011	31,530,000	30
Allocation Requested for FY 2012	100,000	30
Programmed Balance to Complete after FY 2012	40,270,000	
Unprogrammed Balance to Complete after FY 2012	33,900,000	

JUSTIFICATION: Erosion had caused serious damage to the shoreline extending through the communities of Coney Island, Brighton Beach, and Sea Gate, New York. Due to this erosion, residential and commercial developments had become increasingly susceptible to storm damage from wave attack and inundation. In March 1962, a severe northeast storm caused breaching and failure of the breach and shore protection structures with damages estimated at \$18,000,000. A recurrence of the March 1962 storm would have caused damages of approximating \$56,000,000 (October 1989 price levels) without the project in place. A 100 year event would cause storm damage by wave attack in excess of \$156,000,000 at October 1993 prices. Project implementation has eliminated these damages.

Division: North Atlantic

District: New York

Atlantic Coast of New York City, Rockaway Inlet
to Norton Point, Coney Island, NY

Fiscal Year 2011: The requested amount will be applied as follows:

Planning, Engineering and Design	\$ 300,000
Total	\$ 300,000

Fiscal Year 2012: The requested amount will be applied as follows:

Planning, Engineering and Design	\$ 100,000
Total	\$ 100,000

NON-FEDERAL COSTS: In accordance with the cost sharing and financial concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the Requirements listed below:

Requirement of Local Cooperation	Payments During Construction and Reimbursement	Annual Operation, Maintenance, and Replacement Costs
Pay 35 percent of the costs of periodic nourishment allocated to storm damage reduction and 50 percent of the costs allocated to recreation, bear all costs of operation, maintenance and replacement of storm reduction facilities	\$ 53,200,000	\$950,000
Total Non-Federal Costs	\$ 53,200,000	\$950,000

STATUS OF LOCAL COOPERATION: The non-Federal sponsor for this project is the New York State Department of Environmental Conservation. The Local Cooperation Agreement for this project was executed in October 1993. The original PCA is planned to be modified in December 2011, to incorporate construction of T-Groins at Seagate and complete the project's initial construction.

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal cost estimate of \$105,800,000 is the same as the latest estimate (105,800,000) presented to Congress (FY 2011).

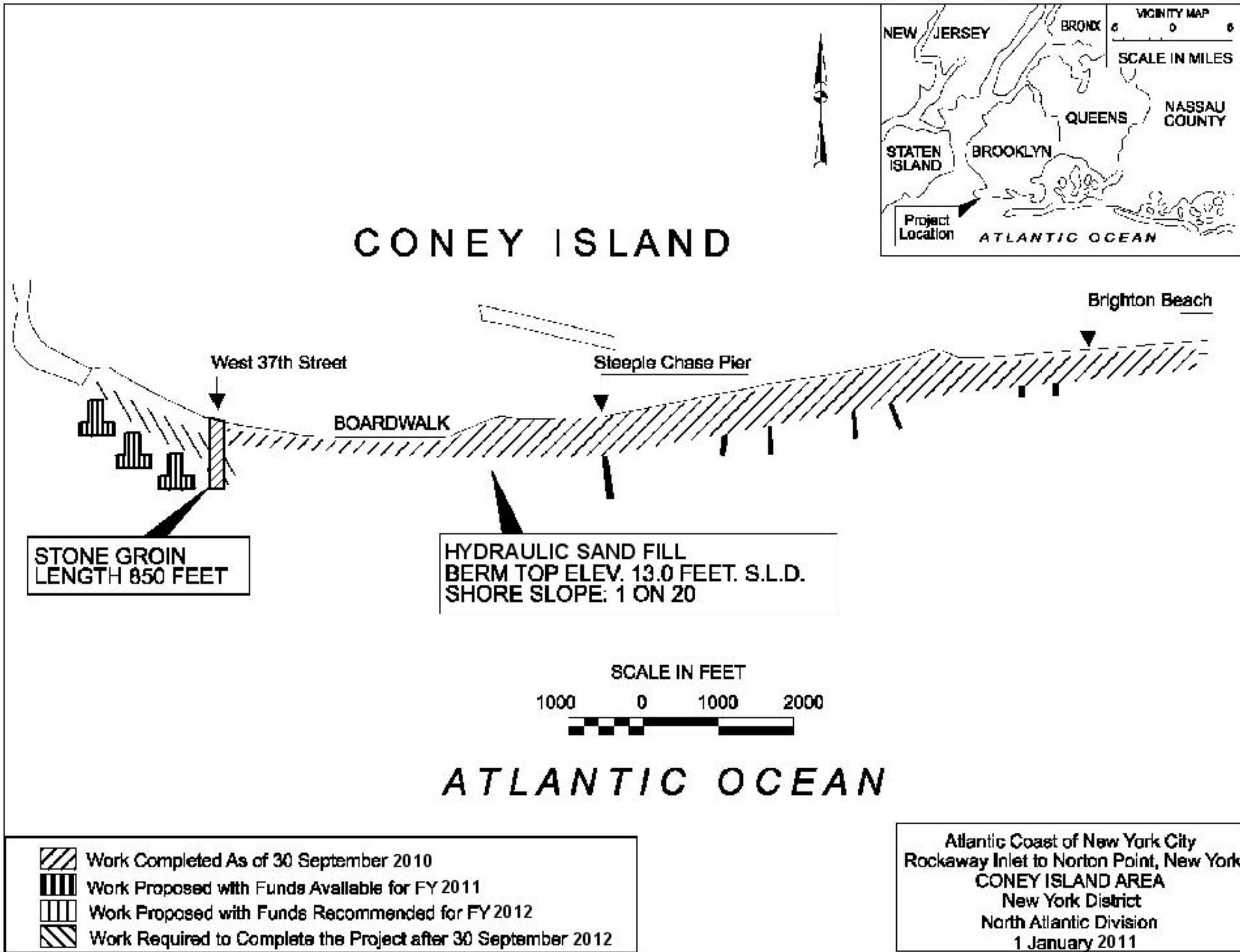
STATUS OF ENVIRONMENTAL IMPACT STATEMENT: A final Supplemental Environmental Impact Statement was filed with the United States Environmental Protection Agency on 5 June 1992.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1988 and funds to initiate construction were appropriated in FY 1992. The budget funds the initial construction phase of beach nourishment projects that reduce storm damages, but does not support follow-up work for such projects, except to the extent that the operation and maintenance of Federal navigation projects contributed to the erosion of the shoreline.

Division: North Atlantic

District: New York

Atlantic Coast of New York City, Rockaway Inlet to Norton Point, Coney Island, NY



APPROPRIATION TITLE: Construction, General - Beach Erosion Control

PROJECT: Fire Island Inlet to Montauk Point, New York (continuing)

LOCATION: The overall project area extends from Fire Island Inlet easterly to Montauk Point along the Atlantic Coast of Suffolk County. The project is about 83 miles long and comprises about 70 percent of the total ocean frontage of Long Island. Fire Island Inlet is located about 50 miles by water East of the Battery, New York City.

DESCRIPTION: The project provides for beach erosion control and hurricane protection along five reaches of the Atlantic Coast of New York from Fire Island Inlet to Montauk Point. Work includes widening the beaches along the developed areas to a minimum width of 100 feet at an elevation of 14 feet above mean sea level and by raising dunes to an elevation of 20 feet above mean sea level from Fire Island Inlet to Hither Hills State Park and at Montauk and opposite Lake Montauk Harbor, supplemented by grass planting on the dunes, interior drainage structures, construction of up to 50 groins, and subsequent periodic beach nourishment. A reformulation study is underway to evaluate storm damage protection measures. An interim project at Westhampton Beach has been constructed prior to completion of an ongoing overall project reformulation effort. This interim project provides for 30 years of periodic nourishment to maintain a beach berm extending westwardly from Groin 15 to Moriches Inlet at an elevation of 9.5 feet above mean sea level backed by a dune with a height of +15 feet above msl. The Westhampton Beach Interim project also includes tapering of the existing westernmost two groins, construction of a new groin between groins 14 and 15, and beachfill as necessary within the existing groinfield to promote sand transport. A Breach Contingency Plan has been developed which permits closing of breaches of the barrier island with use of a pre-approved Project Cooperation Agreement format, provided that estimated breach costs are no greater than \$5 million. A Decision document was finalized and approved in July 2002 for an interim project to protect the area west of Shinnecock Inlet. This interim project provides for initial beachfill which was initiated in September 2004, in conjunction with the second nourishment of the Westhampton Interim Project. The study for an interim project along Fire Island has been discontinued due to lack of a Non-Federal sponsor.

AUTHORIZATION: River and Harbor Act 14 July 1960, modified by the Water Resources Development Act of 1974, the Water Resources Development Act of 1986, and the Water Resources Development Act of 1992.

REMAINING BENEFIT-REMAINING COST RATIO: 1.7 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 1.3 to 1 at 7 percent.

INITIAL BENEFIT-COST RATIO: 2.6 to 1 at 2 5/8 percent (FY 1963).

Division: North Atlantic

District: New York

Fire Island Inlet to Montauk Point, NY

SUMMARIZED FINANCIAL DATA

Estimated Federal Cost		591,100,000
Programmed Construction	201,600,000	
Initial Construction	67,000,000	
Periodic Nourishment	134,600,000	
Unprogrammed Construction	389,500,000	
Initial Construction	113,400,000	
Periodic Nourishment	276,100,000	
Estimated Non-Federal Cost		295,200,000
Programmed Construction	83,200,000	
Initial Construction	19,500,000	
Cash Contributions	18,800,000	
Other Costs	700,000	
Periodic Nourishment	63,700,000	
Cash Contribution	63,700,000	
Other Costs	0	
Unprogrammed Construction	212,000,000	
Initial Construction	59,200,000	
Cash Contributions	48,850,000	
Other Costs	10,350,000	
Periodic Nourishment	152,800,000	
Cash Contribution	152,800,000	
Other Costs	0	
Total Estimated Programmed Construction	284,800,000	
Initial Construction	86,500,000	
Periodic Nourishment	198,300,000	
Total Estimated Unprogrammed Construction Cost	601,500,000	
Initial Construction	172,600,000	
Periodic Nourishment	428,900,000	
Total Estimated Project Cost		886,300,000
Initial Construction	259,100,000	
Periodic Nourishment	627,200,000	

STATUS: (1 Jan 2011)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Reach 2		
11 groins	100	Oct 1966
4 groins	100	Nov 1970
8 groins	0	<u>1/</u>
Westhampton Interim	40	To be determined
Initial Construction	100	Dec 1997
Periodic Nourishment	0	To be determined
West of Shinnecock Interim		
Initial Construction	100	Mar 2005
Periodic Nourishment	0	To be determined
Balance of Reach	0	<u>1/</u>
Reach 4		
2 groins	100	Sep 1965
Beach Fill-18.4 mi.	0	<u>1/</u>
Balance of Project		
Dune/Beach Fill-39.7 mi	0	<u>1/</u>
27 groins	0	<u>1/</u>
Studies for Interim Projects		
Fire Island	90	<u>2/</u>
West of Shinnecock	100	Dec 2002
Beach Contingency Plan	100	Jan 1996

1/ Schedule is dependent on the outcome of the Reformulation effort.

2/ Study terminated due to lack of a non-federal sponsor and environmental issues that will be addressed in the overall reformulation effort

PHYSICAL DATA

Dunes and beach replenishment: 73,5 miles

Dunes: raise to elevation 20 feet above msl Beaches: widen to a minimum of 100 ft Interior drainage structures: 3 gated culverts

Groins: 52

Periodic nourishment: 480,000 cubic yards/yr

Division: North Atlantic

District: New York

Fire Island Inlet to Montauk Point, NY

ACCUM.
PCT. OF EST.
FED. COST

SUMMARIZED FINANCIAL DATA (continued)

Allocations to 30 September 2008	86,928,000	
Allocation for FY 2009	2,010,000	
Allocation for FY 2010	5,480,000	
Recovery Act Allocations to Date	0	
Allocation for FY 2011	1,100,000	
Allocations Through FY 2011	95,518,000	16
Allocation Requested for FY 2012	1,350,000	16
Programmed Balance to Complete After FY 2012	104,732,000	
Unprogrammed Balance to Complete After FY 2012	389,500,000	

JUSTIFICATION: Erosion has seriously reduced the width of the shoreline in the study area with consequent exposure of the shore and the mainland to wave attack and inundation damages. A recurrence of the hurricane tide of record (September 1938) when 45 lives were lost, would cause inundation and wave damage estimated at \$717,000,000 (April 1996 price levels). As a result of the 11 December 1992 storm, in the Westhampton area (Section 1B of Reach 2), over 200 residential structures were destroyed and two breaches of the barrier island occurred. Closure costs for these breaches in 1992 were approximately \$6,600,000.

FISCAL YEAR 2011: The requested amount will be applied as follows:

Continue West of Shinnecock (Required Monitoring)	\$ 300,000
Continue Westhampton Beach (Required Monitoring)	300,000
Continue Reformulation Study	250,000
Construction Management for Westhampton Interim Project	250,000
Total	\$ 1,100,000

FISCAL YEAR 2012: The requested amount will be applied as follows:

Continue Westhampton Beach (Required Monitoring)	300,000
Continue Reformulation Study , including IEPR	750,000
Construction Management for Westhampton Interim Project	300,000
Total	\$ 1,350,000

Division: North Atlantic

District: New York

Fire Island Inlet to Montauk Point, NY

NON-FEDERAL COSTS: Local interests are required to bear 30 percent of the total project cost including periodic nourishment for the Westhampton Interim project and 35 percent of the total project cost for the rest of the project, which includes the value of lands, easements, and rights-of-way.

Requirements of Local Cooperation:	Payments During Construction and Reimbursements	Annual Operation Maintenance and Replacement Costs
Provide all lands, easements, and rights-of-way, and relocations.	\$ 11,050,000	
Pay 30 percent of the first costs for the Westhampton Interim project and 35 percent of the first costs for the remainder of the project including creditable lands and easements and rights of way, and bear all costs of operation and maintenance and replacement of storm damage reduction facilities.	67,650,000	\$0
Pay 30 percent of the periodic nourishment costs for the Westhampton Interim project and 35 percent of the periodic nourishment cost for the remainder of the project.	216,500,000	
Total Non-Federal Costs	\$ 295,200,000	\$0

STATUS OF LOCAL COOPERATION: The agency responsible for local cooperation is the New York State Department of Environmental Conservation (NYSDEC). Assurances of local cooperation were executed by the NYSDEC on 14 August 1963 and accepted by the Federal Government on 20 August 1963. A project cooperation agreement (PCA) for the Westhampton Interim project was executed in February 1996. A PCA for the West of Shinnecock project was executed in December 2003.

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal cost estimate of \$591,100,000 is the same as the latest estimate (\$591,100,000) presented to Congress (FY 2011).

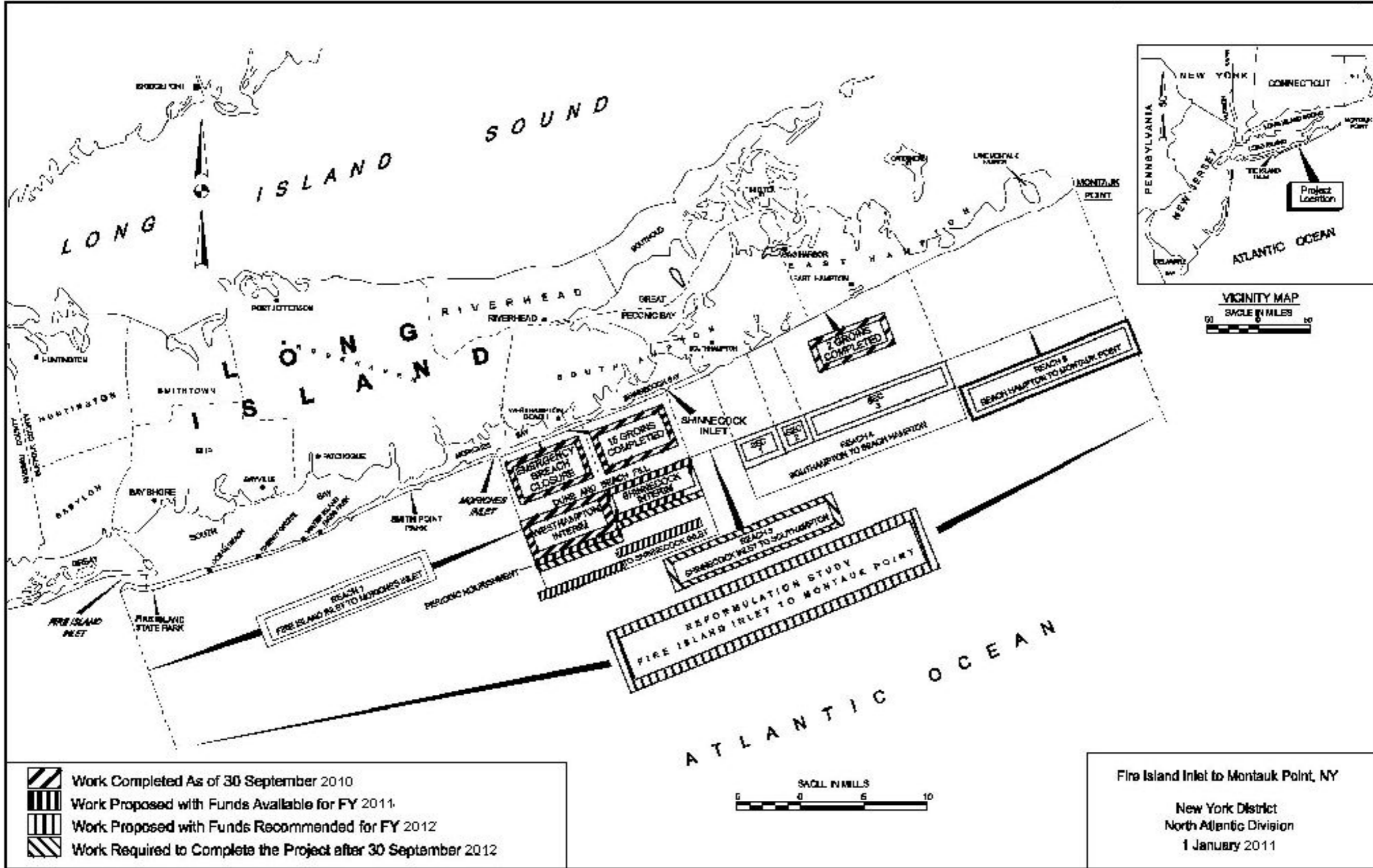
STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement (EIS) was filed with the Environmental Protection Agency (USEPA) on 28 January 1978. On 7 March 1978, the Department of the Interior (DOI), supported by other agencies referred the EIS to the Council on Environmental Quality (CEQ) as unacceptable. Subsequent to the strong objections on the projects final environmental impact statement, meetings were held between September 1978 and January 1980 with DOI, USEPA, U.S. Department of Commerce, and NYSDEC. Two public scoping meetings were held in October 1979. Subsequently, the Federal agencies agreed to a basis for the reformulation of the Fire Island to Montauk Point project, including a general agreement on the studies necessary to answer the outstanding concerns. An environmental analysis was included in Supplement No. 2 to GDM No. 1 to determine environmentally acceptable measures of beach protection for the critically eroded areas at Westhampton Beach.

Division: North Atlantic

District: New York

Fire Island Inlet to Montauk Point, NY

OTHER INFORMATION: Initial planning and construction funds were appropriated in FY 1963. The work remaining to be done is completion of construction of Reach 2-Moriches Inlet to Shinnecock Inlet, Reach 4-Southampton to Beach Hampton, initiation of construction of Reach 1-Fire Island Inlet to Moriches Inlet, Reach 3-Shinnecock to Southampton, and Reach 5-Beach Hampton to Montauk, as well as the completion of the reformulation effort. The Corps of Engineers concurred with the request by the State of New York to initially construct 11 groins (Reach 2), and 2 groins (Reach 4) with beach fill to be added as necessary but not sooner than 3 years after groin completion. In recognition of the critical condition of the beaches due to earlier storms, the Corps recommended to the State in June 1967 that the 3 year observation period be waived and that construction of urgent hurricane protection be resumed. The State concurred and requested that work be undertaken on additional groins, replacement of beach fill and dunes in Reach 2, as well as construction of groins, drainage structures and dune fill in Reach 4. Suffolk County, however, did not endorse the placement of beach and dune fills. Continuing negotiations during FY 1969 resulted in an agreement on a plan for construction for certain groins, drainage structures, beach fill, and dunes to an interim height of 16 feet in Reaches 2 and 4. In December 1973, the State requested planning for Reach 2 (Section 1b), (Westhampton Beach) and Reach 4 (Georgica Pond), indicating that it would provide funds. Planning resumed and assurances were requested from the State in October 1974. However, strong opposition developed with Suffolk County and the county legislature refusing to provide support. Subsequently, erosion of the shoreline downdrift of the groin field at Westhampton Beach accelerated to the point where Dune Road, the only access to the homes in this area, was under water during normal high tide. In 1984, a lawsuit was brought against Suffolk County, the State of New York and United States of America, which claimed that the groinfield constructed in the early 1960's caused erosion and damage properties. In October 1994, the Village of Westhampton Dunes intervened and a settlement agreement was reached between the plaintiffs and the county, state and Federal governments to provide for storm damage protection as described in the Corps 1995 Decision Document for the Westhampton Interim project which includes periodic nourishment for a period of 30 years and coastal and environmental monitoring to insure project sustainability and minimize impacts to threatened and endangered species. In December 1992, two breaches occurred in the barrier island near Westhampton Beach, which were subsequently closed. The USEPA and DOI agreed in concept to the interim plan for Westhampton, provided that a full environmental assessment and/or environmental impact study was completed, and the reformulation of the overall project was reinstated. At the direction of Congress, in 1993, the reformulation was reinstated and evaluations for interim projects began. An interim plan for severely eroded Westhampton Beach area was prepared in June 1994, which provides for a lower level protection than that provided in the original authorization. This interim plan has been designed such that it could be modified based on future recommendations in the to-be-completed Reformulation study. The planning engineering and design has been completed for an interim project to address the severely eroded shoreline west of Shinnecock Inlet. The initial construction contract for the West of Shinnecock Interim project was awarded in September 2004 and completed in March 2005. The West of Shinnecock Inlet interim project includes beach fill with periodic nourishment for 6 years, and associated coastal and environmental monitoring as prescribed by the New York State permit. An interim plan for the Fire Island barrier island has been discontinued due to the lack of a non-federal sponsor and environmental concerns which will be addressed during the reformulation study. Additionally, a Breach Contingency Plan was approved in January 1996 to provide for rapid response to breaches along the islands while awaiting completion of the reformulation study. The scope of the reformulation study has been modified over the years to capture agencies' concerns and ensure agreement in evaluating alternatives in light of changed conditions, new requirements, and a comprehensive vision for the project.



APPROPRIATION TITLE: Construction, General – Flood and Coastal Storm Damage Reduction

PROJECT: Great Egg Harbor Inlet and Peck Beach, New Jersey (Continuing)

LOCATION: The project is located in Cape May County, New Jersey. Great Egg Harbor Inlet provides a tidal connection from the Atlantic Ocean to Great Egg Harbor Bay and the NJIWW. Peck Beach is occupied in its entirety by the City of Ocean City and extends from Great Egg Harbor Inlet southwest to Corson Inlet, a distance of about 8 miles.

DESCRIPTION: The project consists of providing initial beachfill, with subsequent periodic nourishment, with a minimum berm width of 100 feet at an elevation of +8.0 National Geodetic Vertical Datum (NGVD). The beachfill extends from Surf Road southwest to 34th Street with a 1,000-foot taper south of 34th Street. This plan required the initial placement of approximately 6.2 million cubic yards of material and subsequent periodic nourishment of approximately 1.1 million cubic yards every 3 years. The material for the initial construction and periodic nourishment is being taken from the ebb shoal area located approximately 5,000 feet offshore of the Great Egg Harbor Inlet. This periodic dredging of the ebb shoal area will help alleviate the navigation difficulties in the inlet. Additionally, the initial construction of the project required the extension of 38 storm drain pipes.

AUTHORIZATION: Committee Resolution on December 15, 1970 under the provisions of Section 201 of P.L. 89-298. Project reauthorized with provisions for construction of separable elements under Section 831(1) of the Water Resources Development Act of 1986, P.L. 99-662.

REMAINING BENEFIT-REMAINING COST RATIO: 7.1 to 1 at 7 percent

TOTAL BENEFIT-COST RATIO: 5.1 to 1 at 7 percent

INITIAL BENEFIT-COST RATIO: 2.0 to 1 at 8 7/8 percent (FY 1990).

BASIS OF BENEFIT-COST RATIO: The April 1989 General Design Memorandum approved on 2 May 1990 at September 1988 price levels.

SUMMARIZED FINANCIAL DATA:		PHYSICAL STATUS: (1 Jan 2011)	PERCENT COMPLETE	COMPLETION SCHEDULE
Estimated Federal Cost	\$380,500,000	Initial Beachfill (Phase 1)	100	Oct 1992
Initial Construction	\$ 20,556,000	Initial Beachfill (Phase 2)	100	Mar 1993
Periodic Nourishment	\$359,944,000	Entire Project	15	TBD
Estimated Non-Federal Costs	\$215,228,000	PHYSICAL DATA:		
Initial Construction	\$ 11,151,000	Beachfill: Elevation +8 feet (NGVD); 100-Foot Width		
Cash Contributions	\$ 11,151,000	Periodic Nourishment: 1.1 million cy every three years		
Other Costs	\$ 0			
Periodic Nourishment	\$204,077,000			
Cash Contributions	\$204,077,000			
Other Costs	\$ 0			
Total Estimated Project Cost	\$595,728,000			
Initial Construction	\$ 31,707,000			
Periodic Nourishment	\$564,021,000			

Division: North Atlantic

District: Philadelphia

Great Egg Harbor Inlet and Peck Beach, NJ

		ACCUM. PCT. OF EST FED COST
Allocations to 30 September 2008	\$ 47,440,000	
Allocation FY 2009	\$ 2,967,000	
Allocation FY 2010	\$ 6,141,000	
Recovery Act Allocations to Date	\$ 0	
Allocation for FY 2011	\$ 500,000	
Allocations through FY 2011	\$ 57,048,000	15
Allocation Requested for FY 2012	\$ 500,000	15
Programmed Balance to Complete after FY 2012	\$322,952,000	
Unprogrammed Balance to Complete after FY 2012	\$ 0	

JUSTIFICATION: The instability of Great Egg Harbor Inlet and the shoreline along Peck Beach is a significant problem. Peck Beach, a 8-mile-long barrier island along New Jersey's southern coastline contains the entire City of Ocean City. The primary problem at Ocean City is the vulnerability of the beach and the adjacent highly urbanized development to erosion and direct wave attack during major storms. Historical erosion rates for the beaches have averaged five feet per year with severe erosion rates up to 35 feet per year in some locations. In March 1962, a severe storm caused breaching and failing of bulkheads and dunes, and resulted in about \$15,000,000 damages of which \$4,000,000 was attributed to direct wave attack. It was noted that the area fronting the existing Federal shore protection for Ocean City sustained less damage than other locations. The storm of 28 to 30 March 1984 caused extensive damage to the beach, boardwalk, properties and buildings due to the vulnerable condition of the beaches. More recently, the storms of 30 and 31 October 1991 and 3 to 5 January 1992 caused extensive damages to the beach, boardwalk, properties and buildings. Since initial construction of the project was completed in March 1993, approximately \$20,000,000 worth of damages to the area were prevented during the 3-5 January 1992 storm, \$4,000,000 in damages to the boardwalk during Hurricane Felix in August 1995, and \$1,000,000 during the storm of 7-8 January 1996.

Beach erosion and loss of protective dunes have left Ocean City extremely vulnerable to inundations and direct wave attack from even minor storm events. The instability and shoaling of Great Egg Harbor Inlet also creates navigation difficulties for commercial and recreation craft, particularly those associated with low tides and ground swells and damages due to running aground. Unsafe navigation conditions due to excessive shoals at Great Egg Harbor Inlet required the State of New Jersey to commence emergency dredging operations in October 1989.

FISCAL YEAR 2011: The budgeted amount of \$500,000 will be used for project monitoring.

FISCAL YEAR 2012: The requested amount will be applied as follows:

Project Monitoring	\$ 500,000
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Division: North Atlantic

District: Philadelphia

Great Egg Harbor Inlet and Peck Beach, NJ

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, as amended, the non-Federal sponsor must comply with the requirements listed below:

	Payments during Construction and Reimbursement	Annual Operation, Maintenance, and Replacement Costs
Provide 35 percent of the initial construction costs assigned to project for flood and coastal storm damage reduction	\$ 11,151,000	
Provide during construction 35 percent of each periodic nourishment costs assigned to the project for flood and coastal storm damage reduction	\$204,077,000	
Bear all costs of operation, maintenance, repair, replacement, and rehabilitation of the completed project.		\$32,900
Total Non-Federal Cost	\$215,228,000	\$32,900

STATUS OF LOCAL COOPERATION: The State of New Jersey (New Jersey Department of Environmental Protection) is the non-Federal sponsor for the project. In a letter dated 28 September 1990, the state identified a funding source for the non-Federal costs and indicated that it was prepared to proceed with the final negotiations to sign the Local Cooperation Agreement. The state's financing plan was provided by letter dated 28 February 1991. The local cooperation agreement was executed on 18 September 1991. The State has provided the required cost sharing for the initial construction and previous periodic nourishment cycles. They have also indicated that they are prepared to provide the required cost share for the currently scheduled periodic nourishment cycle.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$380,500,000 is an increase of 58,800,000 from the latest estimate (\$321,700,000) presented to Congress (FY 2011). This change includes the following items:

Item	Amount
Price Escalation on Construction Features	\$58,800,000
Total	\$58,800,000

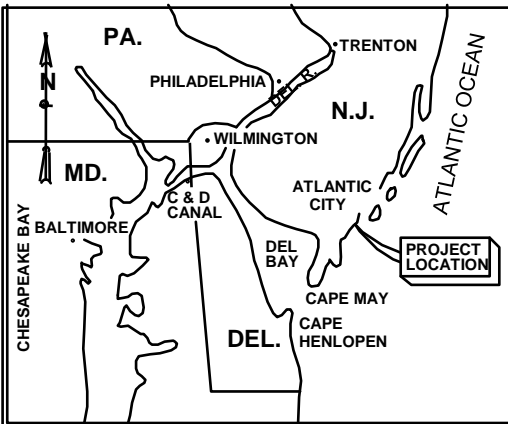
Division: North Atlantic

District: Philadelphia

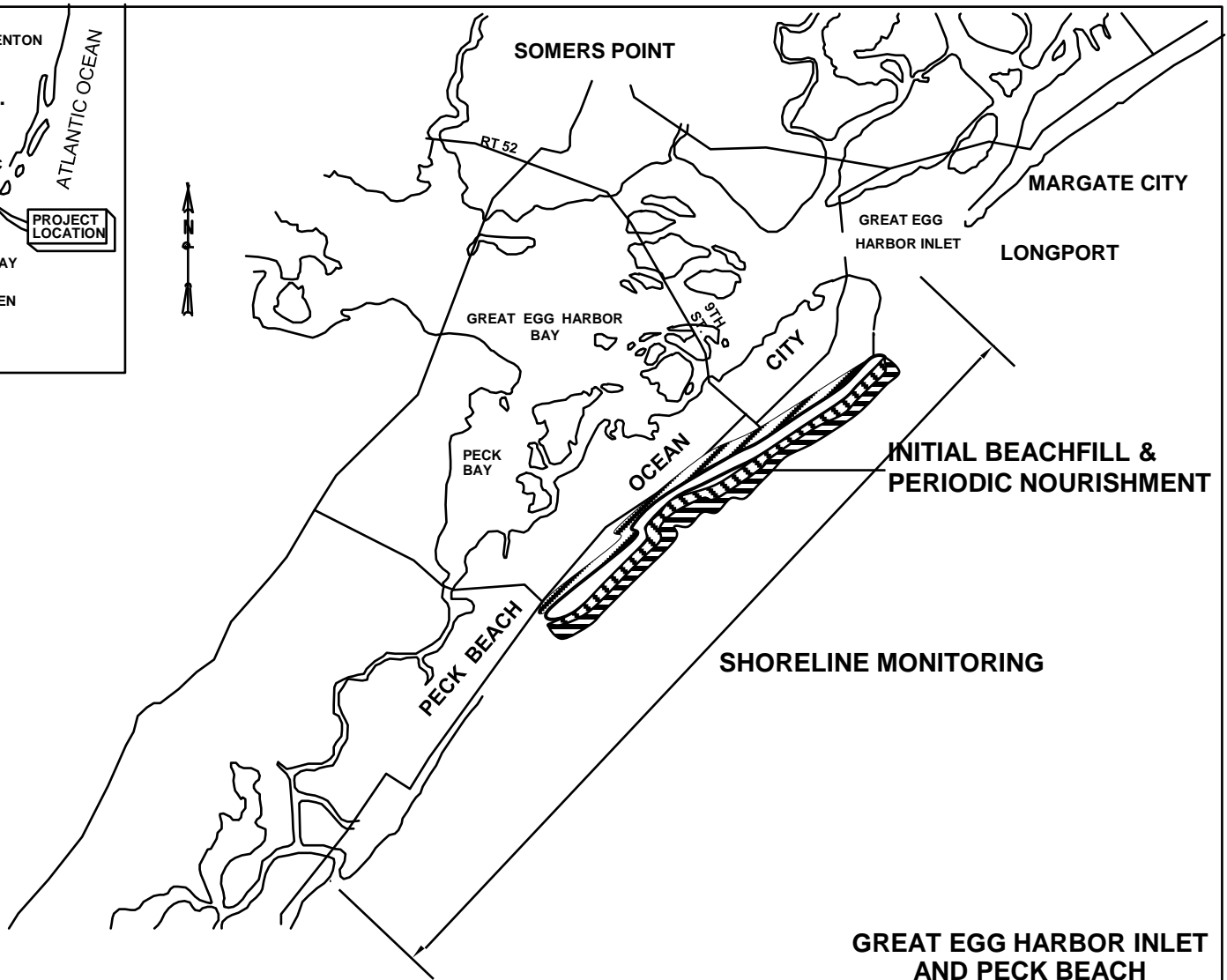
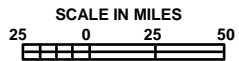
Great Egg Harbor Inlet and Peck Beach, NJ





STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement was filed with the Council on Environmental Quality on 13 November 1970 and a Final Supplemental Environmental Impact Statement (FSEIS) was filed with the Environmental Protection Agency (EPA) in August 1990. The Piping Plover (*Charadrius melodus*) was listed as an endangered bird species in January 1986 and a determination that the species nests in the project area necessitated informal consultation in accordance with Section 7 of the Endangered Species Act of 1973. A letter from the US Fish and Wildlife Service, dated 9 January 1989 directed the Corps to minimize impacts to the Piping Plover in the project area. A detailed plan to protect the Piping Plover was included in the FSEIS. On 31 August 1990, the Advisory Council on Historic Preservation informed the District that it did not concur with the Finding of No Effect issued by the New Jersey State Historic Preservation Office on 12 April 1989. A process Memorandum of Agreement to address cultural resources concerns relating to project effects on the shipwreck *Sindia* was executed on 4 April 1991.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1973. Funds to initiate construction were appropriated in FY 1990.



VICINITY MAP



- LEGEND**
-  WORK COMPLETED AS OF 30 SEP2010
 -  WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2011
 -  WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2012
 -  WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2012



**GREAT EGG HARBOR INLET
 AND PECK BEACH
 OCEAN CITY, NEW JERSEY
 1 JANUARY 2011
 SCALE AS SHOWN**

U.S. ARMY ENGINEER DISTRICT, PHILA.

APPROPRIATION TITLE: Construction, General – Storm Damage Reduction

PROJECT: Long Beach Island, New York (Continuing)

LOCATION: The project area, which is comprised of 9 miles of oceanfront, is located on the Atlantic Coast of Long Island, New York, between Jones Inlet to the east and East Rockaway Inlet to the west. The area lies within Nassau County, New York.

DESCRIPTION: The plan includes a 110-foot wide beach berm at an elevation of +10 feet NGVD, dune system at an elevation of +15 feet NGVD with a crest width of 25 feet, rehabilitation of 16 of the existing groins, construction of 6 new groins in the most critical erosion area along the island, boardwalk, dune grass, dune fencing, beachfill, and periodic nourishment. All work is programmed.

AUTHORIZATION: Section 101(a)(21) of Water Resources Development Act of 1996.

REMAINING BENEFITS-REMAINING COST RATIO: 2.1 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 2.5 to 1 at 7 percent.

INITIAL BENEFIT-COST RATIO: 1.9 to 1 at 8 percent (FY 1998).

BASIS OF BENEFITS-COST RATIO: Benefits and Costs are from the Feasibility Report dated February 1995 at June 1994 price levels.

Division: North Atlantic

District: New York

Long Beach Island, New York

SUMMARIZED FINANCIAL DATA:

Estimated Federal Cost	\$120,900,000
Initial Construction	45,431,000
Periodic Nourishment	75,469,000

Estimated Non-Federal Cost	\$65,100,000
Initial Construction	24,463,000
Cash Contributions	24,463,000
Other Costs	0

Periodic Nourishment	40,637,000
Cash Contributions	40,637,000
Other Costs	0

Total Estimated Project Cost	\$186,000,000
Initial Construction	69,894,000
Periodic Nourishment	116,106,000

Allocations to 30 September 2008	2,956,033	
Allocations for FY 2009	96,000	
Allocations for FY 2010	904,000	
Recovery Act Allocations to Date	0	
Allocations for FY 2011	300,000	
Allocation through FY 2011	4,256,033	4
Allocation Requested for FY 2012	300,000	4
Programmed Balance to Complete after FY 2012	116,343,967	
Unprogrammed Balance to Complete after FY 2012	0	

ACCUM.
PCT. OF EST.
FED. COST

STATUS
(1 Jan 2011)

PERCENT
COMPLETE

PHYSICAL
COMPLETION
SCHEDULE

Initial Construction	0	TBD
Groins	0	TBD
Periodic Nourishment	0	TBD
Entire Project	0	TBD

PHYSICAL DATA

Beach Berm 110 ft wide, elev. +10ft NGVD
Dune: 25 ft wide, elev. +15ft NGVD
Groins: Rehabilitation of 16 groins
construction 6 new groins
Periodic Nourishment: 2.1 million cy every
5 years

Division: North Atlantic

District: New York

Long Beach Island, New York

JUSTIFICATION: The area has been subjected to major flooding during storms, causing damage to structures along the barrier island. Over the years, continued erosion has resulted in a reduction in the height and width of the beach front and accelerated deterioration of the locally constructed stone groins, which has made the densely populated communities along the barrier island increasingly susceptible to storm damage. Coastal storms have been a continuing source of damage and economic loss within the project area. Damaging storms occurred in 1950, 1953, 1960, 1962, 1984, 1991, and 1992. In September 1960, Hurricane Donna forced the evacuation of over 300 families. A recurrence of this storm would result in approximately \$21,100,000 in damages based on October 1995 price levels and conditions. downdrift beaches against continued shoreline erosion.

FISCAL YEAR 2011: The requested amount will be applied as follows:

Continue LRR	\$ 300,000
Total	\$ 300,000

FISCAL YEAR 2012: The requested amount will be applied as follows:

Continue P&S for the 1st Construction Element	\$ 300,000
Total	\$ 300,000

NON-FEDERAL COSTS: In accordance with the cost sharing and financial concepts reflected in the authorizing legislation, the non-Federal sponsor must comply with the requirements listed below.

	Payments During Construction and Reimbursements	Annual Operation, Maintenance and Replacement Costs
Requirements of Local Cooperation		
Provide all lands, easements, rights Of way, and relocations.	\$ 396,000	
Pay 35 percent of the cost of Construction, excluding non-creditable Lands, easements, and rights of way, And bear all costs of operations and Maintenance of storm damage reduction Facilities.	12,804,000	
Pay 35 percent of periodic nourishment	51,900,000	
Total Non-Federal Costs	\$65,100,000	\$ 0

Division: North Atlantic

District: New York

Long Beach Island, New York

STATUS OF LOCAL COOPERATION: The local sponsor, the New York State Department of Environmental Conservation, has indicated their support for the selected plan and are willing to enter into a Project Partnership Agreement with the Federal Government for the implementation of the plan. Local municipalities along the barrier island will cost share the non-Federal cost with the State. These municipalities, which include the City of Long Beach, the Town of Hempstead and Nassau County, support for the selected plan. The village of Atlantic Beach, which encompasses the western 2 miles of the barrier island, has asked not to be included in the project and is not affected by the proposed plan. A Limited Reevaluation Report is being finalized to document any changes since the feasibility study and ensure local participation. The PPA is scheduled to be executed in September 2012.

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal cost estimate of \$120,900,000 is the same as the latest estimate presented to Congress (FY 2011).

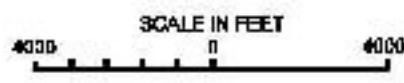
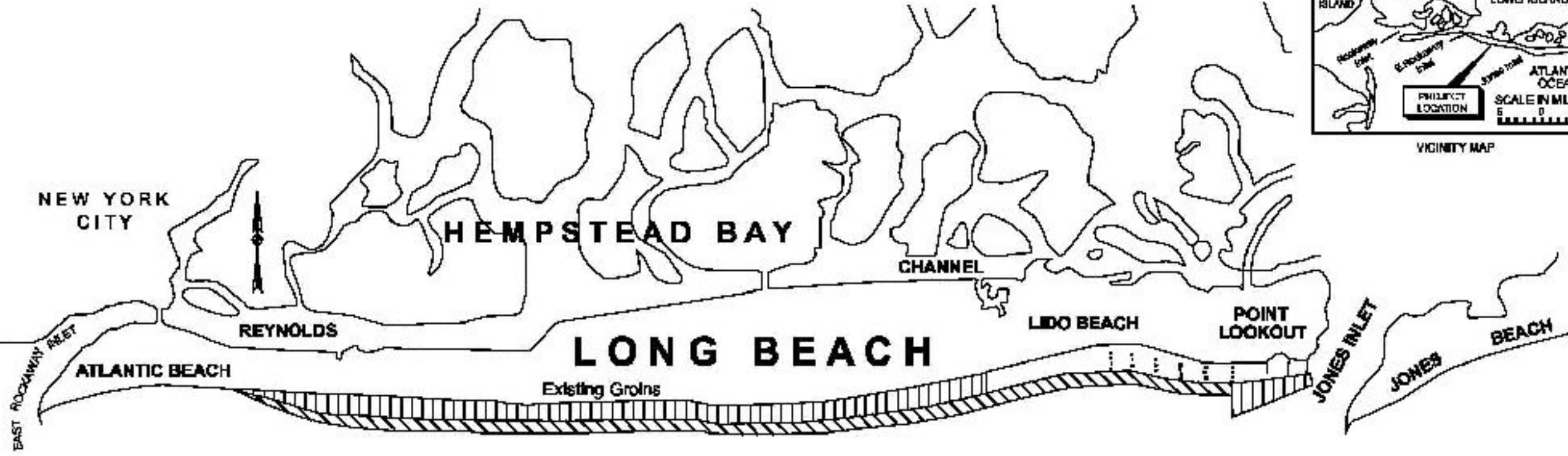
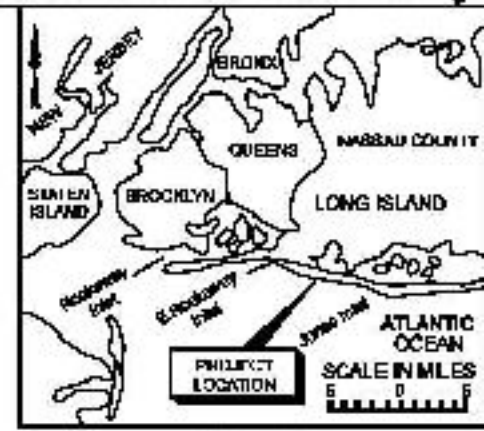
STATUS OF ENVIRONMENTAL IMPACT STATEMENT: A Statement was included with the Final Feasibility Report dated February 1995. The Record of Decision (ROD) for the final Environmental Impact Statement was issued on 23 December 1998.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1995 and funds to initiate construction in FY 1998.

Division: North Atlantic

District: New York

Long Beach Island, New York



- LEGEND**
- Beachfill Design
 - New Groins
 - Existing Groins

- Work Completed As of 30 September 2010
- Work Proposed with Funds Available for FY 2011
- Work Proposed with Funds Recommended for FY 2012
- Work Required to Complete the Project after 30 September 2012

Atlantic Coast of Long Island
 Long Beach Island, NY

New York District
 North Atlantic Division

1 January 2011

APPROPRIATION TITLE: Construction, General - Flood and Coastal Storm Risk Management and Ecosystem Restoration

PROJECT: Muddy River, Boston and Brookline, Massachusetts (Continuing)

LOCATION: The Muddy River is a 3.5 mile urban waterway located in eastern Massachusetts in the communities of Boston, Brookline and Newton. The Muddy River originates at Jamaica Pond and flows through the heart of Frederick Law Olmsted's famed "Emerald Necklace", one of the most carefully crafted park systems in America. The park is located next to several residential neighborhoods and some of the area's most prominent businesses and institutions such as the Museum of Fine Arts, Longwood Medical Center, Northeastern University and Wentworth, Simmons and Emmanuel Colleges.

DESCRIPTION: The flood risk management portion of the project involves dredging approximately 65,000 cubic yards of sediment to deepen the Muddy River, removal or replacement of undersized culverts and streambank protection which will provide flood risk management against the recurrence of a 20-year event. The ecosystem restoration portion of the project involves dredging approximately 135,000 cubic yards of sediment and restoration of riparian vegetation to improve water quality, enhance aquatic and riparian habitat, and promote recreational use of the river and surrounding parklands. Only flood risk management work is programmed. The project would be constructed in two phases. Phase I involves replacement of two undersized culverts, day-lighting two sections of the river and modification of a bridge and culvert headwall for flood risk management. Phase II involves dredging of the river for both flood risk management and ecosystem restoration.

AUTHORIZATION: Section 552 of the Water Resources Development Act of 2000.

REMAINING BENEFIT-REMAINING COST RATIO: The remaining benefit-remaining cost ratio for the flood risk management portion of the project is 3.4 to 1 at 7 percent. The remaining benefit-remaining cost ratio for the ecosystem restoration portion of the project is not applicable.

TOTAL BENEFIT-COST RATIO: The total benefit to cost ratio for the flood risk management portion of the project is 2.5 to 1 at 7 percent. The total benefit to cost ratio for the ecosystem restoration portion of the project is not applicable.

INITIAL BENEFIT-COST RATIO: The initial benefit to cost ratio for the flood risk management portion of the project is 2.5 to 1 at 5 7/8 percent (FY 2003). The initial benefit to cost ratio for the ecosystem restoration portion of the project is not applicable.

BASIS OF BENEFIT-COST RATIO: Flood risk management benefits are based on the economic evaluation contained in the Revised Draft Muddy River Decision Document, dated September 2003. Benefits are expressed at June 2001 price levels.

Division: North Atlantic

District: New England

Muddy River, Boston and Brookline, MA

SUMMARIZED FINANCIAL DATA		ACCUMULATED PCT. OF EST. FED COST	STATUS (1 Jan 2011)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	\$ 49,855,000		Flood Risk Management	0	TBD
Estimated Non-Federal Cost	29,945,000		Ecosystem Restoration	0	Unprogrammed
Cash Contribution	\$ 29,855,000		Entire Project	0	Unprogrammed
Other Costs	90,000				
 Total Estimated Project Cost	 \$ 79,800,000				
 Allocations to 30 September 2008	 \$ 13,178,000				
Allocation for FY 2009	4,785,000				
Allocation for FY 2010	5,208,000				
Recovery Act Allocations to Date	0				
Allocation for FY 2011	500,000				
Allocations through FY 2011	23,671,000	48			
Allocation Requested for FY 2012	4,000,000	58			
Programmed Balance to Complete					
After FY 2012	1,000,000				
Unprogrammed Balance to Complete					
After FY 2012	21,184,000				

PHYSICAL DATA

Flood Risk Management	
Dredging.65,000 cubic yards
Daylighting River.700 linear feet
Replace/Install Culverts.530 linear feet
Ecosystem Restoration	
Dredging.	135,000 cubic yards
Planting Emergent Vegetation.	3.5 acres

JUSTIFICATION: During the past century the Muddy River watershed has experienced the effects of gradual urbanization and is now over 70 percent developed. Flooding has worsened because there is little natural storage remaining in the watershed and the carrying capacity of the river has been restricted by undersized culverts, accumulated sediment, vegetation and debris. Several residential neighborhoods and some of the area's most prominent businesses and institutions are subject to frequent flood damage. In October 1996 a 20 to 25-year storm, caused widespread flooding along the Muddy River. The Kenmore Square Subway Station, part of the Massachusetts Bay Transportation Authority's Green Line, was flooded with over 30 feet of water causing \$51 million in damages and disrupting service for about 6 months. Average annual damages for the Muddy River are estimated at about \$7 million. The proposed project would protect against damages from all floods up to an average recurrence frequency of once in 20 years, as well as reducing damages from larger, more infrequent floods. The average annual benefits, all flood risk management, are estimated at \$6,299,500 at a June 2001 price level.

The Muddy River is the only remaining small urban stream in Boston or Brookline that still provides significant aquatic habitat. Its location within one of the nation's premier historic park systems and close proximity to internationally known medical, cultural and educational institutions further adds to its significance. Accumulated sediment from urban runoff has contributed to poor water quality, loss of aquatic habitat, and proliferation of invasive aquatic and emergent wetland vegetation. Removal of nutrient rich sediment and invasive plant species will significantly improve water quality, restore 8 acres of open water habitat, create more diverse emergent and riparian habitat, and restore the aesthetic quality of the Muddy River.

Division: North Atlantic

District: New England

Muddy River, Boston and Brookline, MA

FISCAL YEAR 2011: Available funds are being used to execute a Project Partnership Agreement with the Commonwealth of Massachusetts, City of Boston and Town of Brookline. These funds are also being used to award a fully funded contract for Phase I work and to initiate construction. Fiscal Year 2011 funds will be used to complete design of the flood risk management elements of Phase II work.

FISCAL YEAR 2012: The requested amount will be applied as follows:

Award Construction Contract for Phase II	\$ 3,600,000
Construction Management	300,000
Planning, Engineering and Design	100,000
Total	\$ 4,000,000

NON-FEDERAL COSTS: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation and Replacement Costs
Provide lands, easements, rights-of-way, and suitable borrow and dredged or excavated material disposal areas, and perform all relocations determined by the Federal Government to be necessary for the construction, operation and maintenance of the project.	\$ 90,000	
Pay 34.9 percent of the costs allocated to flood risk management and ecosystem restoration to bring the total non-Federal share of these costs to 35 percent, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood risk management and ecosystem restoration facilities.	26,755,000	\$ 220,000
Pay all additional costs for the locally preferred plan to dredge Wards Pond instead of the Federally implementable plan of aeration.	3,100,000	
Total Non-Federal Costs	\$ 29,945,000	\$ 220,000

Division: North Atlantic

District: New England

Muddy River, Boston and Brookline, MA

STATUS OF LOCAL COOPERATION: The City of Boston, Town of Brookline, Massachusetts Executive Office of Environmental Affairs (EOEA) and Massachusetts Department of Conservation and Recreation (DCR) are the local sponsors for the project. The City of Boston signed an agreement for design of the entire project on 13 June 2005. The sponsors understand the requirements of local cooperation and are prepared to enter into a Project Partnership Agreement with the Corps in May 2011. The City of Boston, in conjunction with the Town of Brookline and Massachusetts EOEA and DCR, will obtain all state and local permits, as well as acquire all lands, easements, rights-of-way, and dredged material disposal areas necessary for project construction.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$49,855,000 is an increase of \$390,000 from the latest estimate (\$49,465,000) presented to Congress (FY 2011). This change includes the following items:

Item	Amount
Price Escalation on Construction Features	\$ 390,000
Total	\$ 390,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An Environmental Assessment and Finding of No Significant Impact was completed on 1 October 2003.

OTHER INFORMATION: Funds to initiate Preconstruction Engineering and Design (PED) were appropriated in FY 2001. The design agreement was signed on 13 June 2005 with the City of Boston. Funds to initiate construction of the project were first appropriated in FY 2003. In a letter dated 5 July 2004, the Assistant Secretary for the Army (Civil Works) expressed support for the flood risk management elements of the project, but determined that the ecosystem restoration elements do not demonstrate environmental significance and are therefore not justified.

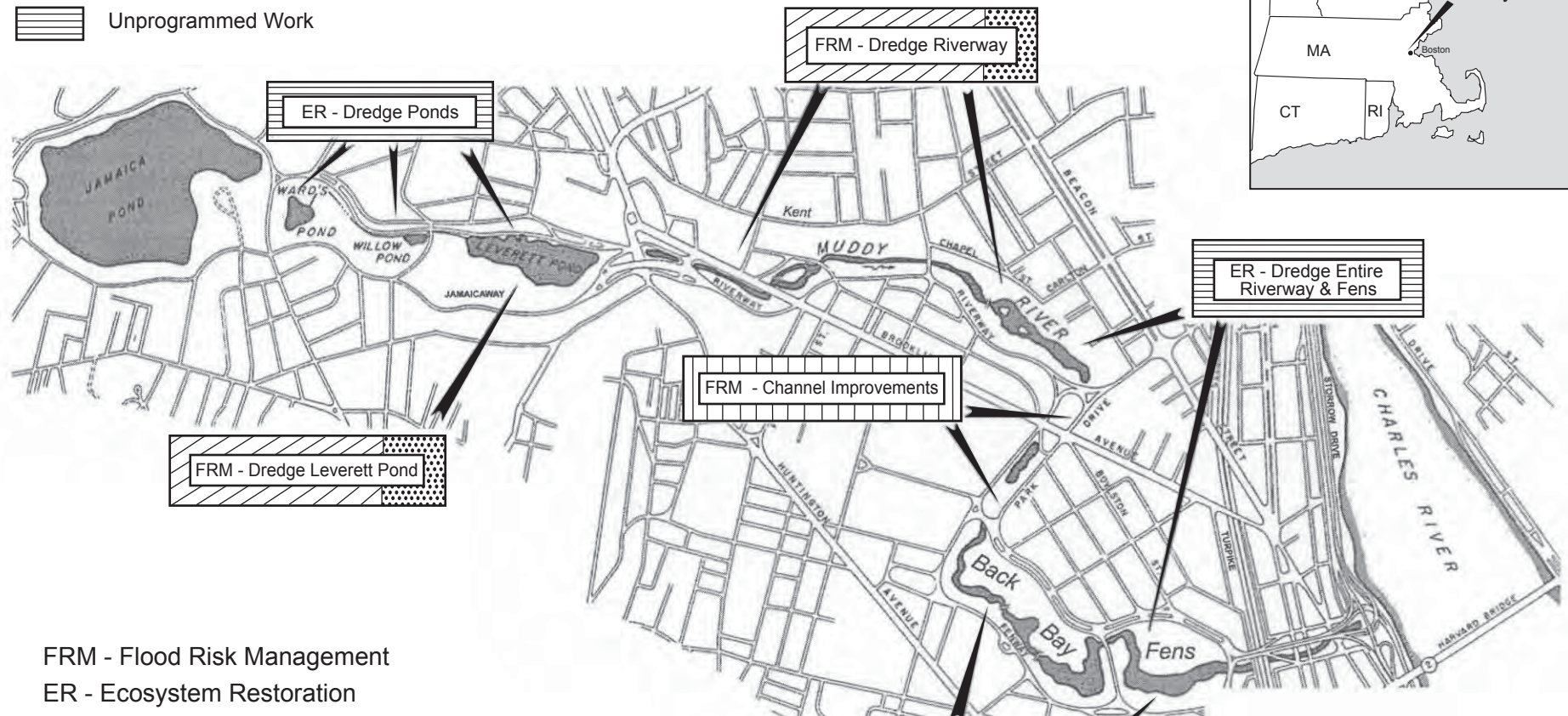
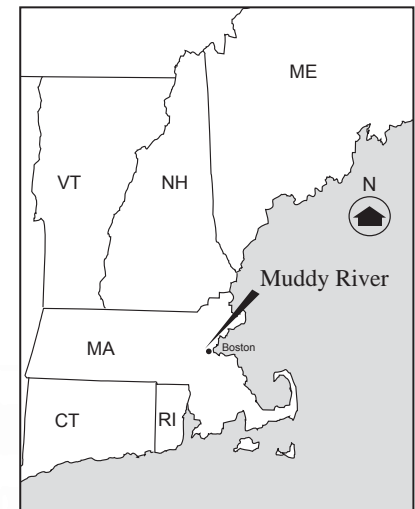
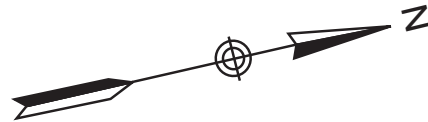
Division: North Atlantic

District: New England

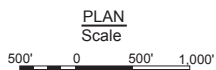
Muddy River, Boston and Brookline, MA

LEGEND

- (none) Work Completed as of 30 September 2010
- Work Underway with Funds available for FY 2011
- Work Proposed with Funds Requested for FY 2012
- Work Required to Complete the Project after FY 2012
- Unprogrammed Work



FRM - Flood Risk Management
 ER - Ecosystem Restoration



MUDDY RIVER, MA
 Flood Risk Management
 and Ecosystem Restoration
 1 January 2011
 North Atlantic Division
 New England District, Corps of Engineers

APPROPRIATION TITLE: Construction, General - Beach Erosion Control

PROJECT: Raritan Bay and Sandy Hook Bay, Port Monmouth, New Jersey (New)

LOCATION: The project area is in Middletown Township, Monmouth County, situated between Pews Creek and Comptons Creek.

DESCRIPTION: The selected plan in the June 2000 feasibility report includes about 7,070 feet of levees, 3,585 feet of floodwalls, 2,460 feet of dune (4,640 feet of placement with taper sections), a storm-tide gate, and periodic beach nourishment on a 10-year cycle. The project also includes interior drainage and mitigation features.

AUTHORIZATION: Section 101 of the Water Resources Development Act 2000.

REMAINING BENEFITS-REMAINING COST RATIO: 1.1 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 1.1 to 1 at 7 percent

BASIS OF BENEFIT-COST RATIO: Benefits are from the analysis contained in the Feasibility Report dated June 2000

Division: North Atlantic

District: New York

Raritan Bay and Sandy Hook Bay,
Port Monmouth, NJ

SUMMARIZED FINANCIAL DATA:		ACCUM. PCT. OF EST. FED. COST	STATUS (1 Jan 2011)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		\$ 40,650,000	Initial Construction	0	TBD
Initial Construction	35,750,000		Periodic Nourishment	0	TBD
Periodic Nourishment	4,900,000				
Estimated Non-Federal Cost		29,550,000	PHYSICAL DATA:		
Initial Construction	25,650,000		Initial construction:		
Periodic Nourishment	3,500,000		Beachfill – 337,000 cubic yards		
Other Costs	400,000		Levees, closure gate, floodwalls, pump station, and groin		
Total Estimated Project Cost		70,200,000	Periodic nourishment: 10 year cycles		
Initial Construction	61,400,000		Port Monmouth-79,500 cubic yards		
Periodic Nourishment	8,400,000				
Other Costs	400,000				
Allocation to 30 September 2008	2,268,000				
Allocation for FY 2009	957,000				
Allocation for FY 2010	921,000				
Recovery Act Allocations to Date	0				
Allocation for FY 2011	0				
Allocation Through FY 2011	4,146,000	10			
Allocation Requested for FY 2012	3,000,000	18			
Programmed Balance to Complete after FY 2012	33,504,000				
Unprogrammed Balance to Complete after FY 2012	0				

JUSTIFICATION: Coastal storms have been a continuing source of damage and economic loss along the south shore of Raritan Bay. As a result of recent hurricanes, coastal storm events, and the lack of subsequent storm protection measures in these areas, the shore protection and flood control protection afforded by the Port Monmouth has been significantly reduced. Erosion has seriously reduced the width and height of the shorelines in the project area with consequent exposure of the shore and inland areas to tidal inundation and wave attack damages. A recurrence of the December 1992 northeaster would cause serious flood damages to residential and commercial and public structures in the Port Monmouth area.

Division: North Atlantic

District: New York

Raritan Bay and Sandy Hook Bay,
Port Monmouth, NJ

FISCAL YEAR 2011: There were no funds allocated.

FISCAL YEAR 2012: The requested amount will be applied as follows:

Complete Dune & Beach Contract	\$ 2,300,000
Construction Management	\$ 400,000
Planning, Engineering and Design	\$ 300,000
Total	\$ 3,000,000

NON-FEDERAL COSTS: In accordance with the cost sharing and financial concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the Requirements listed below:

REQUIREMENTS OF LOCAL COOPERATION:	Payments During Construction and Reimbursement	Annual Operation, Maintenance and Replacement Costs
Pay 35 percent of initial construction costs in Port Monmouth 30 percent of initial construction costs in Keansburg and East Keansburg.	\$ 25,650,000	\$0
Pay 35 percent of the periodic nourishment costs, 50 percent of the costs allocated to recreation, bear all costs of operation, maintenance, and replacement of storm reduction facilities	3,500,000	0
Provide lands, easements, and rights of way	\$ 400,000	
Total Non-Federal Costs	\$ 29,550,000	\$0

Division: North Atlantic

District: New York

Raritan Bay and Sandy Hook Bay,
Port Monmouth NJ

STATUS OF LOCAL COOPERATION: The non-Federal sponsor for this project is the New Jersey Department of Environmental Protection. The Project Cooperation Agreement is scheduled to be executed by January 2012. The New Jersey Department of Environmental Protection was also the sponsor for the initial project completed in 1973.

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal cost estimate of \$40,650,000 is the first estimate presented to Congress.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final General Design Memorandum revised January 1965 predated the requirements of the National Environmental Policy Act. An Environmental Assessment for the extension of beach nourishment has been prepared and will be released for public review in October 2003.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1999.

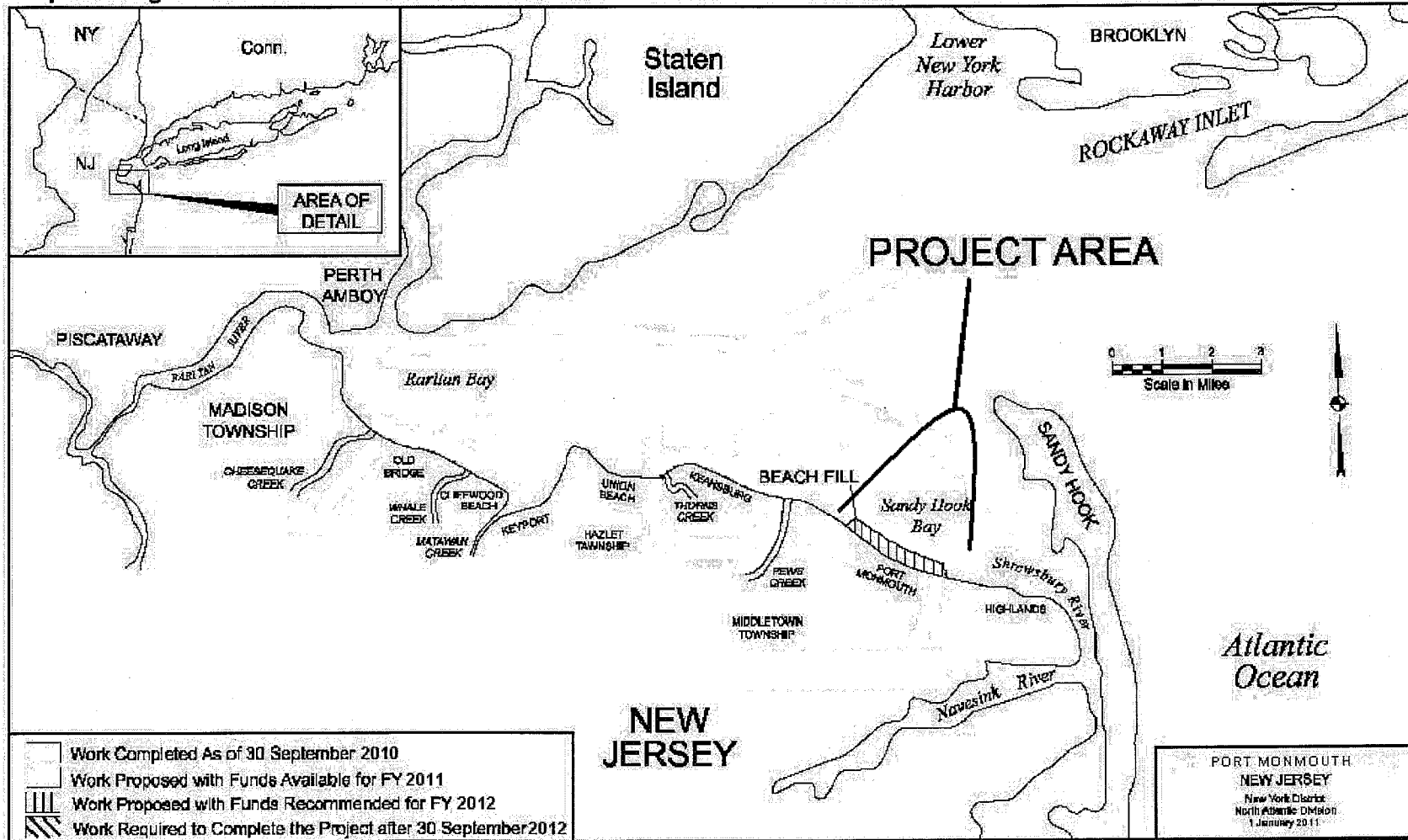
Division: North Atlantic

District: New York

Raritan Bay and Sandy Hook Bay,
Port Monmouth, NJ

Corps of Engineers

Department of the Army



APPROPRIATION TITLE: Construction, General - Flood Damage Reduction

PROJECT: Raritan River Basin, Green Brook Sub-Basin, New Jersey (Continuing)

LOCATION: The Green Brook Sub-Basin project area is located within the Raritan River Basin in north-central New Jersey in Middlesex, Somerset and Union Counties. It drains approximately 65 square miles of primarily urban and industrialized area. It includes the following communities: Dunellen, Middlesex Borough, Piscataway, South Plainfield, Bound Brook, Bridgewater, Green Brook, North Plainfield, Warren, Watchung, Berkeley Heights, Plainfield, and Scotch Plains. The project area is divided into three sub-areas: the lower, upper and Stony Brook portions of the sub-basin.

DESCRIPTION: The Project plan consists of a system of levees, floodwalls and pump stations in the lower portion of the basin, channel modifications and dry detention basins in the upper portion of the basin, and channel modifications in the Stony Brook portion of the sub-basin. The upper portion of the sub-basin has been deferred.

AUTHORIZATION: Section 401(a) of Water Development Act of 1986.

REMAINING BENEFITS-REMAINING COST RATIO: 3.2 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 1.4 to 1 at 7 percent.

INITIAL BENEFIT-COST RATIO: 1.4 to 1 at 7 percent (FY 1998).

BASIS OF BENEFIT-COST RATIO: Benefits are from the analysis contained in the Final General Reevaluation Report dated May 1997 at April 1996 price levels.

Division: North Atlantic

District: New York

Raritan River Basin, Green Brook Sub-Basin, NJ

SUMMARIZED FINANCIAL DATA:		ACCUM. PCT. OF EST. FED. COST
Estimated Federal Cost		309,400,000
Programmed Construction	263,200,000	
Unprogrammed Construction	46,200,000	
Estimated Non-Federal Cost		104,000,000
Programmed Construction	87,700,000	
Cash Contributions	25,500,000	
Other Costs	62,200,000	
Unprogrammed Construction	16,300,000	
Cash Contributions	3,100,000	
Other Costs	13,200,000	
Total Estimated Programmed Construction Cost		350,900,000
Total Estimated Unprogrammed Construction Cost		62,500,000
Estimated Project Cost		413,400,000

Allocations thru 30 September 2008	84,954,000	
Allocations to 30 September 2009	10,000,000	
Allocations to 30 September 2010	6,613,000	
Recovery Act Allocation to Date	24,041,762	
Allocation for FY 2011	1,000,000	
Allocations through FY 2011	126,608,762	41
Allocation Requested for 2012	6,000,000	43
Programmed Balance to complete after FY 2012	130,591,238	
Unprogrammed Balance to complete after FY 2011	46,200,000	

STATUS (1 Jan 2011)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Element 1a	90	TBD
Element 1b	0	TBD
Element 2	0	Indefinite
Element 3	0	TBD
Entire Project	48	Indefinite

PHYSICAL DATA

Element 1a is Bound Brook, Somerset County portion of lower basin. Element 1b is remaining portion of lower basin in Middlesex County. Both consist of levees, floodwalls, closure structures, pump stations, flood proofing and buyouts.

Element 2(Unprogrammed) is upper portion of the basin and consists of channel modifications, dry detention.

Element 3 is the Stony Brook portion of the basin.

JUSTIFICATION: The project area suffers annual flood damages of \$41,000,000 (Apr 96 P.L.) without the project. Most recently, the April 15-17, 2007 Nor'easter and September 16-18, 1999 Tropical Storm Floyd flooding were so extensive that the area was designated a Major Disaster Area. Eight deaths have been attributed to floods in the basin. In the April 2007 Nor'easter, 34 people were injured and there were more than 1,000 people evacuated from their residences. In Bound Brook, five homes caught fire and burned to the ground when high water prevented emergency personnel from reaching them. After the flood, FEMA and the SBA spent \$16.5 million on loans and grants for individuals and businesses statewide; another \$3.3 million was provided by FEMA as public assistance to help repair infrastructure and pay for police overtime. National Flood Insurance claims paid in Bound Brook totaled \$19.8 million. Beyond the federal dollars, the April flood cost private insurers \$160 million statewide for homeowners, auto, and other claims according to Insurance Services Office, an industry group.

Division: North Atlantic

District: New York

Raritan River Basin, Green Brook Sub-Basin, NJ

FISCAL YEAR 2011: The requested amount will be applied as follows:

Planning, Engineering and Design for Segment B2	\$ 500,000
Construction Management	\$ 500,000
Total	\$ 1,000,000

FISCAL YEAR 2012: The requested amount will be applied as follows:

Planning, Engineering and Design for Segments B3 and H	\$ 6,000,000
Total	\$ 6,000,000

NON-FEDERAL COSTS: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair Rehabilitation, and Replacement Costs
Provide lands, easements, rights of way, relocations and borrow excavated or dredged material disposal areas.	\$ 62,200,000	
Pay 25 percent of cost associated with non-structural flood protection	16,300,000	
Pay 6 percent of the costs allocated to flood control, to bring the total non-Federal share of flood control costs to 25 percent, as determined under Section 103 (m) of the Water Resources Development Act of 1986, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities	25,500,000	\$1,157,000
Total Non-Federal Costs	\$104,000,000	\$1,157,000

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: The State of New Jersey Department of Environmental Protection provided a letter dated 17 April 1997 stating their support and endorsement of the project. Governor Whitman also provided a letter of support on 26 February 1998. The Green Brook Flood Control Commission has stated their strong support for the project in a letter dated 4 October 1995. Also, several counties and municipalities have adopted resolutions endorsing and supporting the project. The Project Cooperation Agreement was executed in June 1999.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$309,400,000 is the same as the latest estimate (\$309,400,000) presented to Congress (FY 2011):

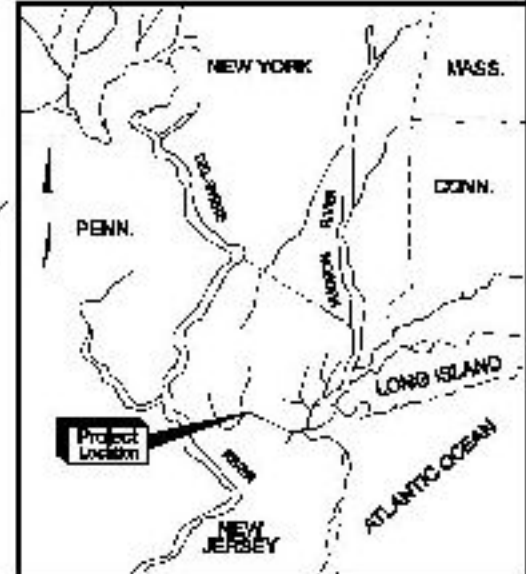
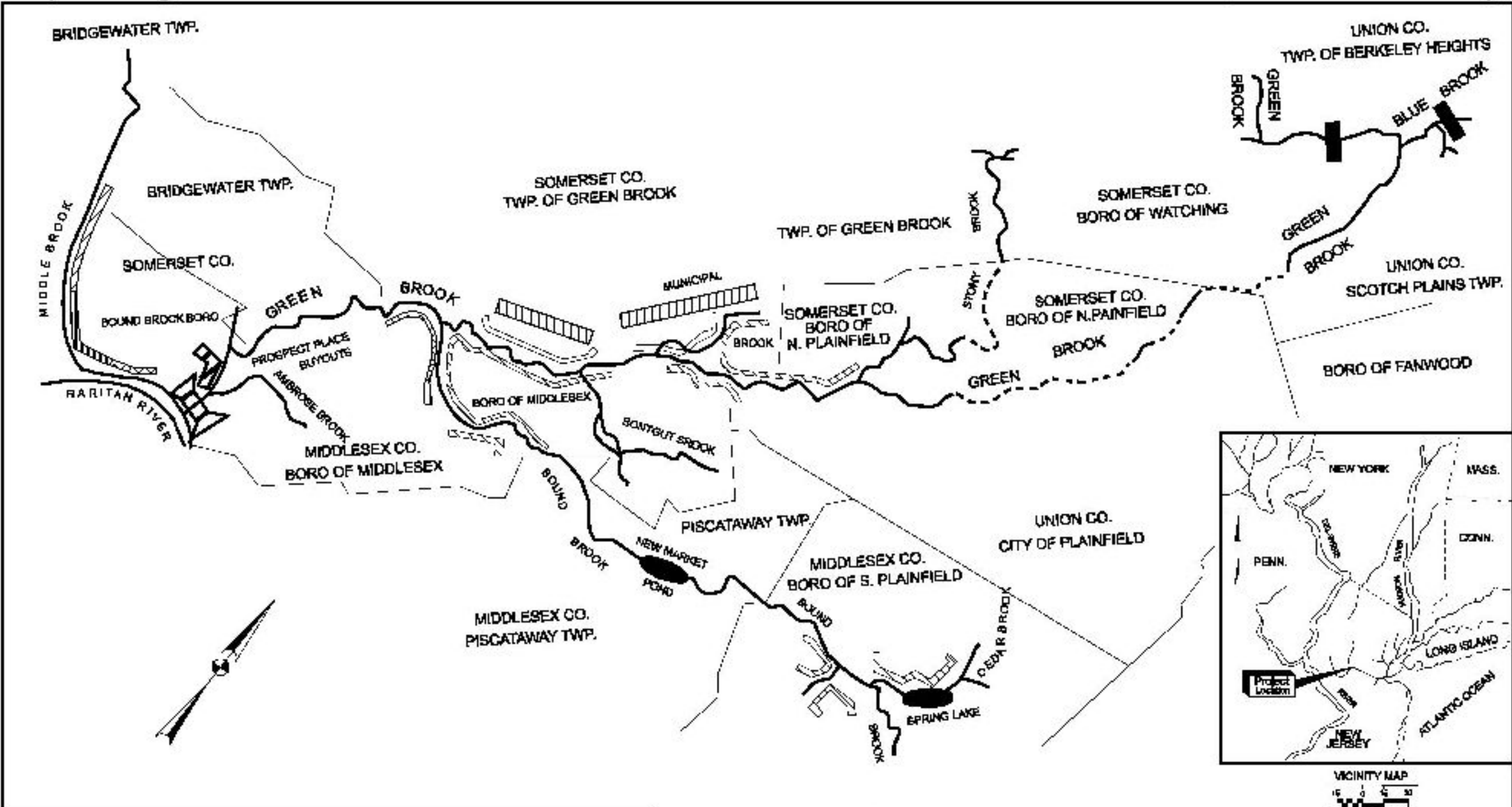
STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement (EIS) was filed in August 1980. A Supplemental Environmental Impact Statement with the Final General Reevaluation Report was released in May 1997 and the Record of Decision was issued in July 1998.

OTHER INFORMATION: Funds to initiate construction were appropriated in FY 1998.

Division: North Atlantic

District: New York

Raritan River Basin, Green Brook Sub-Basin, NJ



VICINITY MAP
SCALE IN MILES

- Work Proposed With ARRA Funds
- Work Completed As of 30 September 2010
- Work Proposed with Funds Available for FY 2011
- Work Proposed with Funds Recommended for FY 2012
- Work Required to Complete the Project after 30 September 2012

- LEGEND**
- LEVEES WITH LIMITED FLOODWALL SECTIONS
 - CHANNEL MODIFICATIONS
 - DRY DETENTION BASIN (deleted)
 - Bridge
 - Flood Proofing

**Green Brook Sub-Basin
Raritan River, NJ
New York District
North Atlantic Division
1 January 2011**

Navigation

Construction

APPROPRIATION TITLE: Construction, General - Channels and Harbors (Navigation)

PROJECT: New York & New Jersey Harbor, New York and New Jersey (Continuing)

LOCATION: The Port of New York and New Jersey is located within the bi-state NY/NJ Harbor Estuary. The Federal navigation channels within the NY & NJ Harbor project include: Ambrose Channel; Anchorage Channel; Kill Van Kull and Newark Bay Channel; Arthur Kill Channel; Port Jersey Channel; and Bay Ridge Channel.

DESCRIPTION: This project consists of four separately authorized Federal navigation projects.

- 1.) The Kill Van Kull and Newark Bay Channels, NY and NJ project consists of deepening existing 40-foot project to 45 feet MLW. Unprogrammed work includes dredging of Pierhead Channel and Port Newark in the vicinity of Port Newark and Port Elizabeth. Otherwise, this project's construction is complete.
- 2.) The New York Harbor and Adjacent Channels, Port Jersey Channel, NJ project consists of deepening and realigning the non-Federal access channel to 41 feet MLW from the Federal Anchorage Channel to its head of navigation. Unprogrammed work includes the turning basin at the western end of the channel. Otherwise, this project's construction is complete.
- 3.) The Arthur Kill, Howland Hook Marine Terminal, NY and NJ project consists of deepening the existing Federal 35-foot Arthur Kill Channel to 41 feet MLW from its confluence with the Kill Van Kull Channel to Howland Hook Marine Terminal in Staten Island, New York, and to 40 feet MLW from the Howland Hook Marine Terminal to the Tosco Oil Terminal oil facilities, New Jersey and New York, respectively. Also included within the Arthur Kill Channel are selected widenings and realignments. The Arthur Kill Project also provides for mitigation consisting of restoration and enhancement of approximately 23 acres of intertidal salt marsh. Apart from a segment of 40' channel south of the Goethal's Bridge, all construction on this project is complete. The remaining work is programmed.
- 4.) The New York and New Jersey Harbor, NY and NJ, project consists of deepening the Ambrose Channel to 53 feet MLW; the Anchorage Channel, Kill Van Kull, Newark Bay, Port Jersey Channel, Bay Ridge Channel, and the Arthur Kill Channel to Howland Hook to 50 feet MLW or 52 feet MLW, if in rock or otherwise hard material. The project also includes mitigation for project impacts, and selective bulkheading. All work is programmed.

AUTHORIZATION: Supplemental Appropriations Act of 1985, Water Resources Development Acts of 1986, 1996, 1999, and 2000.

REMAINING BENEFIT - REMAINING COST RATIO: 25.7 to 1 at 7 percent.

TOTAL BENEFIT - COST RATIO: 5.7 to 1 at 7 percent.

INITIAL BENEFIT - COST RATIO: 2.8 to 1 at 6 5/8 percent (FY 2002).

BASIS OF BENEFIT - COST RATIO: The benefit-to-cost ratio shown above applies to the consolidation of the four authorized projects. The analysis reflects annualized costs and benefits, adjusted to January 2011 price levels.

Division: North Atlantic

District: New York

New York & New Jersey Harbor, NY and NJ

SUMMARIZED FINANCIAL DATA	ACCUM. PCT of EST FED. COST	STATUS (1 Jan 2011)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Appropriation Requirement (CoE)	\$1,399,800,000	Programmed work:		
Programmed Construction	\$1,325,300,000	KVK (a)		
Unprogrammed Construction	74,500,000	Phase I 40 ft.	100	Sep 1995
		Phase II 45 ft.	100	Dec 2004
Estimated Appropriation Requirement (USCG)	4,050,000	Port Jersey Channel (b)	100	Jul 2010
Estimated Total Appropriation Requirement	1,403,850,000	Arthur Kill Channel (c)	80	TBD
		NY & NJ Harbor (50 ft) (d)	0	Indefinite
		Ambrose	22	TBD
Unprogrammed work:		Anchorage	58	Nov 2011
Future Non-Federal Reimbursement	234,362,800	KVK	90	Mar 2011
Programmed Construction	225,990,800	Newark Bay	50	TBD
Unprogrammed Construction	8,372,000	Port Jersey	90	Sep 2011
		Arthur Kill	10	TBD
		Bay Ridge	0	TBD
		Entire Project:	89	Indefinite
Estimated Federal Cost (Ultimate) (CoE)	1,165,437,200			
Programmed Construction	1,099,309,200			
Unprogrammed Construction	66,128,000			
Estimated Non-Federal Cost	1,314,698,800			
Programmed Construction	1,289,906,800			
Cash Contribution	739,541,000			
Other Costs	324,375,000			
Reimbursements:	225,990,800			
Unprogrammed Construction	24,792,000			
Cash Contribution	16,420,000			
Other Costs	0			
Reimbursements	8,372,000			
Total Estimated Programmed Construction Costs	\$ 2,619,256,800			
Total Estimated Unprogrammed Construction Costs	99,292,000			
Total Estimated Project Cost	\$2,718,548,800			
				PHYSICAL DATA
		a. Deepen the Kill Van Kill and Newark Bay from 35 ft to 40 ft then to 45 ft.		
		b. Deepen the Port Jersey Channel to 41 ft.		
		c. Deepen the Arthur Kill Channel from its confluence with the Newark Bay to the NYCT from 35 ft. to 41 ft and then from 35 ft to 40 ft to the TOSCO Terminal.		
		d. NY & NJ Harbor: Deepen the above channels from their depths to 50 ft., deepen the Ambrose Channel from 45 ft. to 53 ft., the Anchorage Channel from 45 ft. to 50 ft., and e Bay Ridge Channel from 40 ft. to 50 ft. Turning areas are provided for the Bay Ridge, Arthur Kill and Port Jersey Channels, along with mitigation for loss of benthic habitat and air quality.		
Division: North Atlantic		District: New York		New York & New Jersey Harbor, NY and NJ

SUMMARIZED FINANCIAL DATA: (continued)

		ACCUM PCT OF EST FED. COST
Allocations thru 30 September 2008	\$868,784,000	
Allocation for FY2009	86,127,000	
Allocation for FY 2010	90,000,000	
Recovery Act Allocation to Date	26,619,928	
Allocation for FY 2011	57,000,000	
Allocation through FY 2011	1,128,530,928	81
Allocation Requested for FY 2012	65,014,000	85
Programmed Balance to Complete after FY 2012	131,755,072	
Unprogrammed Balance to Complete after FY 2012	74,500,000	

JUSTIFICATION: The Port of New York-New Jersey is the largest port on the East Coast, providing more than 228,000 port related jobs, \$12 billion in economic activity, and serves more than 17 million consumers in the States of New York and New Jersey. Through its intermodal links, the Port provides second day access to another 80 million consumers in the northeast and mid-western states (35% of the nation). The Port annually receives and ships over \$82 Billion (110 million long tons) of waterborne general cargo to all parts of the United States and throughout the world and receives petroleum and related products from ports in the Atlantic, and Gulf Coasts, the Caribbean, Africa, and the Persian Gulf.

FISCAL YEAR 2011: The requested amount will be applied as follows:

Initiate "base plus options" construction contracts		\$34,000,000
NY & NJ Harbor Deepening (50 Feet) Area S-AM-3	10,000,000	
NY & NJ Harbor Deepening (50 Feet) Area PJ-4	4,000,000	
NY & NJ Harbor Deepening (50 Feet) Area S-AK-2	20,000,000	
Continue construction contracts		\$16,000,000
NY & NJ Harbor Deepening (50 Feet) Area S-NB-2/S-AK-1	16,000,000	
Planning, engineering, and design and Construction management		7,000,000
TOTAL		\$57,000,000

Division: North Atlantic

District: New York

New York & New Jersey Harbor, NY and NJ

FISCAL YEAR 2012: The requested amount will be applied as follows:

Continue construction contracts		\$46,000,000
NY & NJ Harbor Deepening (50 Feet) Area S—AM-3	21,000,000	
NY & NJ Harbor Deepening (50 Feet) Area S—AK-2	25,000,000	
Initiate “base plus options” construction contracts		\$ 13,014,000
NY & NJ Harbor Deepening (50 Feet) Area S—AK-3	13,014,000	
Planning, engineering, and design and Construction management		6,000,000
	TOTAL	\$65,014,000

NON-FEDERAL COSTS: In accordance with the cost sharing and financial concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsors must comply with the Requirements listed below:

REQUIREMENTS OF LOCAL COOPERATION:	Payments during Construction and Reimbursement	Annual Operation, Maintenance and Replacement Costs
Pay 100 percent of costs to modify local service facilities, where necessary, for the construction of the project.	\$278,195,000	\$205,000
Pay 25-50 percent of the costs allocated to deep draft navigation during construction. <u>1/</u>	755,961,000	
Pay for all lands, easements, rights of way and relocations	46,180,000	
Pay an additional 10 percent of the costs allocated to deep draft navigation within a period of 30 years following completion of construction which is partially offset by a credit allowed for the value of lands, easements, rights of way, and relocation.	234,362,800	
Total Non-Federal Costs	\$1,314,698,800	\$205,000

1/ The cost sharing percentage of this project includes the cost sharing of the general navigation features deepening to 45 feet at 25 percent and deepening of those features from 45 feet to 50 feet at 50%.

Division: North Atlantic

District: New York

New York & New Jersey Harbor, NY and NJ

STATUS OF LOCAL COOPERATION:

(1) On the Kill Van Kull and Newark Bay Channels element, a Project Cooperation Agreement for the 45-foot deepening project was executed for the Phase II deepening on 13 January 1999.

(2) On the NY Harbor and Adjacent Channels, Port Jersey Channel element, the State of New Jersey and the Port Authority of New York and New Jersey (for the limited purpose of indemnification only) are the Non-Federal sponsors of the project. The project cooperation agreement was executed on 23 July 2002 with a modification of the agreement executed in July 11, 2007.

(3) On the Arthur Kill, Howland Hook Marine Terminal element, The Port Authority of New York and New Jersey is the non-Federal sponsor for the project. The PCA was executed on 25 July 2002.

(4) On New York and New Jersey Harbor element, the Port Authority of NY & NJ is the Non-Federal sponsor for the project. The project cooperation agreement was executed on 28 May 2004.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal (Corps of Engineers) cost estimate of \$1,399,800,000 is the same as the latest estimate presented to Congress (FY 2011).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT:

(1) On the Kill Van Kull and Newark Bay Channels element, the Final Environmental Impact Statement (EIS) was filed with the Environmental Protection Agency (EPA) on 31 July 1981. A Supplemental EIS was filed with EPA on 14 February 1986. The Final Supplement to the EIS was filed with EPA on 13 February 1987. The Record of Decision was executed on 1 April 1987. An Environmental Assessment and Finding of No Significant Impact was issued on 30 April 1997 as part of the LRR for the Phase II deepening.

(2) On NY Harbor and Adjacent Channels, Port Jersey Channel element, the final EIS was filed with the Environmental Protection Agency (EPA) on 29 April 1988, and a final Environmental Assessment and Finding of No Significant Impact was issued June 2000. A Record-of-Decision was executed on 23 October 2000.

(3) On the Arthur Kill, Howland Hook Marine Terminal element, the Final Supplemental Environmental Impact Statement was filed with the Environmental Protection Agency on 16 September 1998. A Final Environmental Assessment for mitigation was issued in May 2001. The Record of Decision was executed on 29 August 2001.

(4) On the 50-foot project, New York and New Jersey Harbor Deepening element, the final Environmental Impact Statement (EIS) was filed with the Environmental Protection Agency (EPA) on 29 December 1999. The Record-of-Decision was signed on 6 June 2002. An Environmental Assessment and Finding of No Significant Impact was issued in January 2004.

(5) An Environmental Assessment (EA) and Finding of No Significant Impact (FONSI) were signed June 19, 2007 for the purpose of addressing impacts of Newark Bay Study Area (NBSA) instituted by USEPA in February 2004.

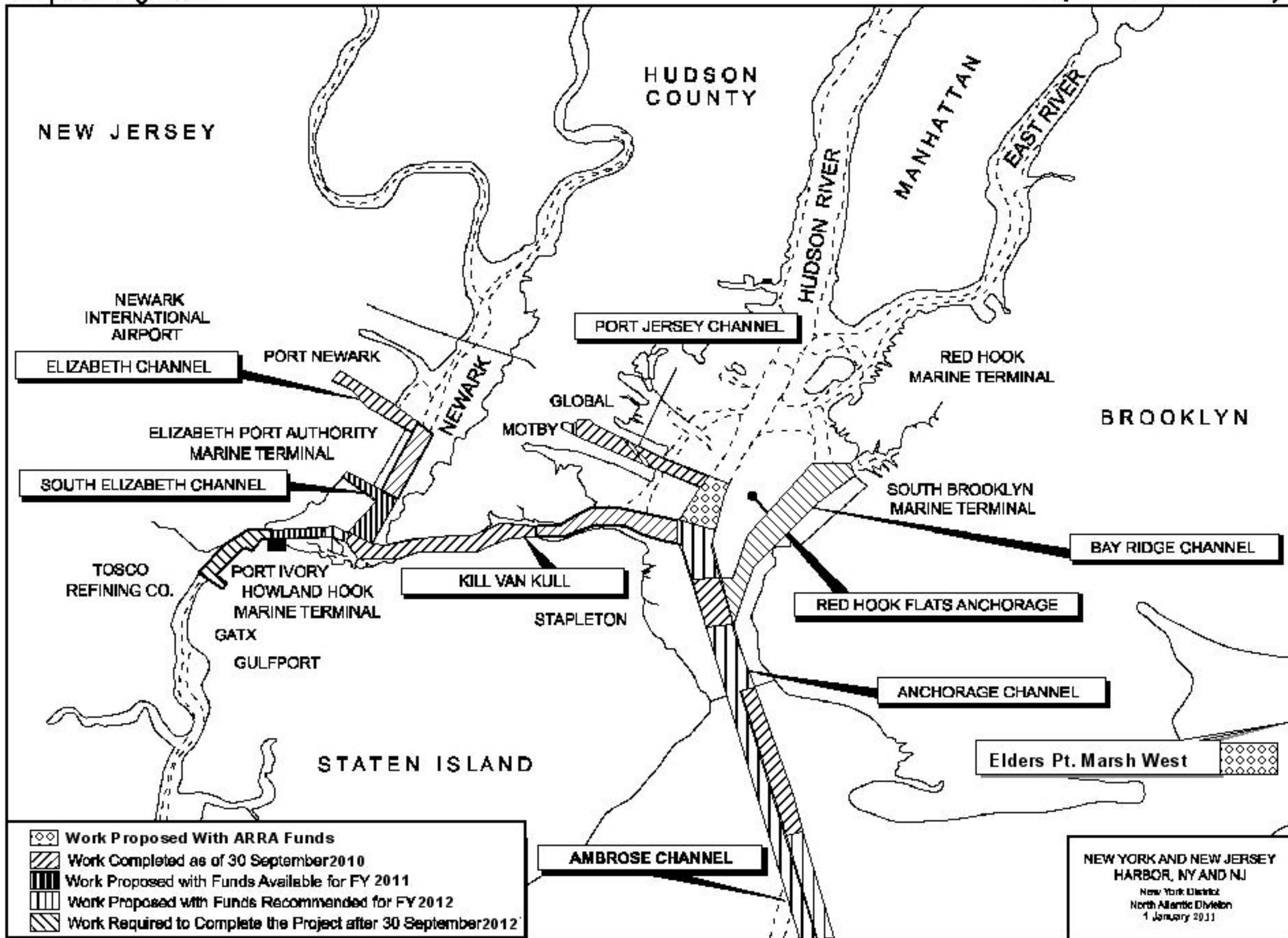
OTHER INFORMATION:

- (1) All project elements were being funded separately prior to FY 2002. Congressional direction provided to the Secretary of the Army in the Energy and Water Development Appropriations, FY 2002, Conference Report consolidated the four project elements with the 50-foot deepening project authorized by the Water Resources Development Act of 2000.
- (2) On the Kill Van Kull and Newark Bay Channels element, funds to initiate construction were appropriated in FY 1985.
- (3) On the NY Harbor and Adjacent Channels, Port Jersey Channel element, funds to initiate preconstruction engineering and design were appropriated in FY 1988 and funds to initiate construction were appropriated in FY 1994.
- (4) On the Arthur Kill, Howland Hook Marine Terminal element, funds for preconstruction engineering and design were appropriated in FY 1986 and funds to initiate construction were appropriated in FY 2001.
- (5) On the 50-foot New York and New Jersey Harbor Deepening element, funds to initiate preconstruction engineering and design were appropriated in FY 2000 and funds to initiate construction were appropriated in FY 2002.
- (6) The Port Jersey Channel PCA was modified on 17 July 2007 to facilitate consolidated implementation of the cost-shared 41' channel with the State of New Jersey's advancement of the 50' channel.
- (7) The 50-foot New York and New Jersey Harbor Deepening PCA was modified on 21 Sep 09 to facilitate implementation of the beneficial reuse of the dredged material from the S-AN-1b construction contract through the construction of the Elders west marsh island in Jamaica Bay, New York.

Division: North Atlantic

District: New York

New York & New Jersey Harbor, NY and NJ



APPROPRIATION TITLE: Construction— Channels and Harbors (Navigation)

PROJECT: Norfolk Harbor and Channels, Craney Island, VA (Continuing)

LOCATION: Craney Island Dredged Material Management Area (CIDMMA) is a 2,500 acre man-made containment area located along the south bank of the James River in Portsmouth, VA.

DESCRIPTION: CIDMMA is federally owned and operated and is used by private interests, local municipalities, and Federal and Commonwealth Government agencies for disposal of dredged material from Norfolk Harbor and adjacent waterways. Virginia Port Authority (VPA) has expressed interest in expanding the containment area to the east. The expansion would provide additional dredge material storage capacity for the Federal Government and create land for a new port facility adjacent to the Norfolk Harbor Channel. VPA is the non-Federal sponsor and signed a design agreement in September 2007.

AUTHORIZATION: The original CIDMMA was authorized by the River and Harbor Act of 1946 and constructed from 1956 through 1958. The expansion is authorized by the Water Resources Development Act of 2007 (Public Law 110-114), Section 1001 (45).

REMAINING BENEFIT – COST RATIO: 3.2 at 7 percent.

TOTAL BENEFIT – COST RATIO: 2.7 at 7 percent.

INITIAL BENEFIT – COST RATIO: 3.6 at 7 percent (FY 2010).

BASIS OF BENEFIT – COST RATIO: Benefits are from the latest available evaluation approved in December 2007 at 2007 price level.

SUMMARIZED FINANCIAL DATA		ACCUM. PCT OF EST FED COST	STATUS (1JAN 2011)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	\$34,440,000		Entire Project	20	TBD
Estimated non-Federal Cost	\$716,154,000				
Cash Contribution	\$716,154,000				
Other Costs	0				
Reimbursements	0				
Total Estimated Project Cost	\$750,594,000				

Division: North Atlantic

District: Norfolk

Norfolk Harbor, Craney Island

SUMMARIZED FINANCIAL DATA: (continued)

Allocations to September 2008	\$ 5,940,000	
Allocations for FY 2009	\$ 0	
Allocations for FY 2010	\$ 100,000	
Recovery Act Allocations To Date	\$ 0	
Allocation for FY 2011	\$ 1,000,000	
Allocation through FY 2011	\$ 7,040,000	20
Allocation Requested for FY 2012	\$ 27,400,000	100
Programmed Balance to Complete after FY2012	\$ 0	

PHYSICAL DATA

Increase dredged material capacity of Craney Island and expand the containment area to the east to facilitate construction for a new port facility adjacent to the Norfolk Harbor Channel.

JUSTIFICATION: The Craney Island Dredged Material Management Area serves Norfolk Harbor, one of the busiest ports in the Nation and the center of substantial industrial, commercial and military activity. The Port is the eighth largest container port in the nation, and the third largest on the East Coast in terms of container volume. More than 55 percent of the containerized cargo handled at Norfolk Harbor originates in or is destined for locations outside Virginia. The Craney Island expansion area is a dual purpose project which (1) Extends the useful life of Craney Island & (2) creates land for port development. Lack of funding will create a loss of economic efficiency as disposal of material would have to utilize more expensive ocean disposal sooner and cargo would be shipped along more expensive routes. The Craney Island Dredged Material Management Area serves all the port facilities in Hampton Roads and the Elizabeth River (averaging 48 million tons annually) including the Norfolk Naval Station, several container terminals and the Nations largest coal loading facility at Lambert Point. The project will generate 54,000 jobs.

Annual Benefits	Amount
Navigation	\$258,000,000

FISCAL YEAR 2011: The current amount (\$1,000,000) is being used to continue engineering and design and associated activities working toward award of the first construction contract and to develop and negotiate the project partnership agreement.

FISCAL YEAR 2012: The requested amount will be applied as follows:

Initiate construction of expansion cell	\$ 25,200,000
Planning, Engineering and Design	\$ 500,000
Supervision and Administration	\$ 1,700,000
Total	\$ 27,400,000

Division: North Atlantic

District: Norfolk

Norfolk Harbor, Craney Island

NON-FEDERAL COSTS: In accordance with the cost sharing and financial concepts reflected in the Water Resources Development Act of 1986, as amended, the report of the Chief of Engineers dated October 24, 2006 and the Water Resources Development Act of 2007, the non-Federal sponsors must comply with the requirements listed below:

	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement costs
Requirements of Local Corporation		
Pay the balance of the total project cost above the Federal share, to include costs to relocate utilities, roads and other facilities, where necessary for the construction of the project.	\$716,154,000	
Provide all lands, easements and rights of way and perform, or assure the performance of any relocations determined to be necessary for the initial construction and subsequent operation and maintenance of the project.	0	
With regard to the access channels, pay 50 percent of the costs of incremental maintenance below 45 feet below mean low water.		\$209,000
Total Non-Federal Costs	\$716,154,000	\$209,000

STATUS OF LOCAL COOPERATION: The Virginia Port Authority is the local sponsor for this project. They are currently designing and constructing portions of the project under a memorandum of understanding in anticipation of executing the Project Partnership Agreement (PPA) during FY 2011. The Sponsor will be raising \$150 million through bonds in 2011. The PPA is scheduled for execution date of July 2011.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$34,440,000 is the same as the latest estimate (\$34,440,000) presented to Congress (FY 2011).

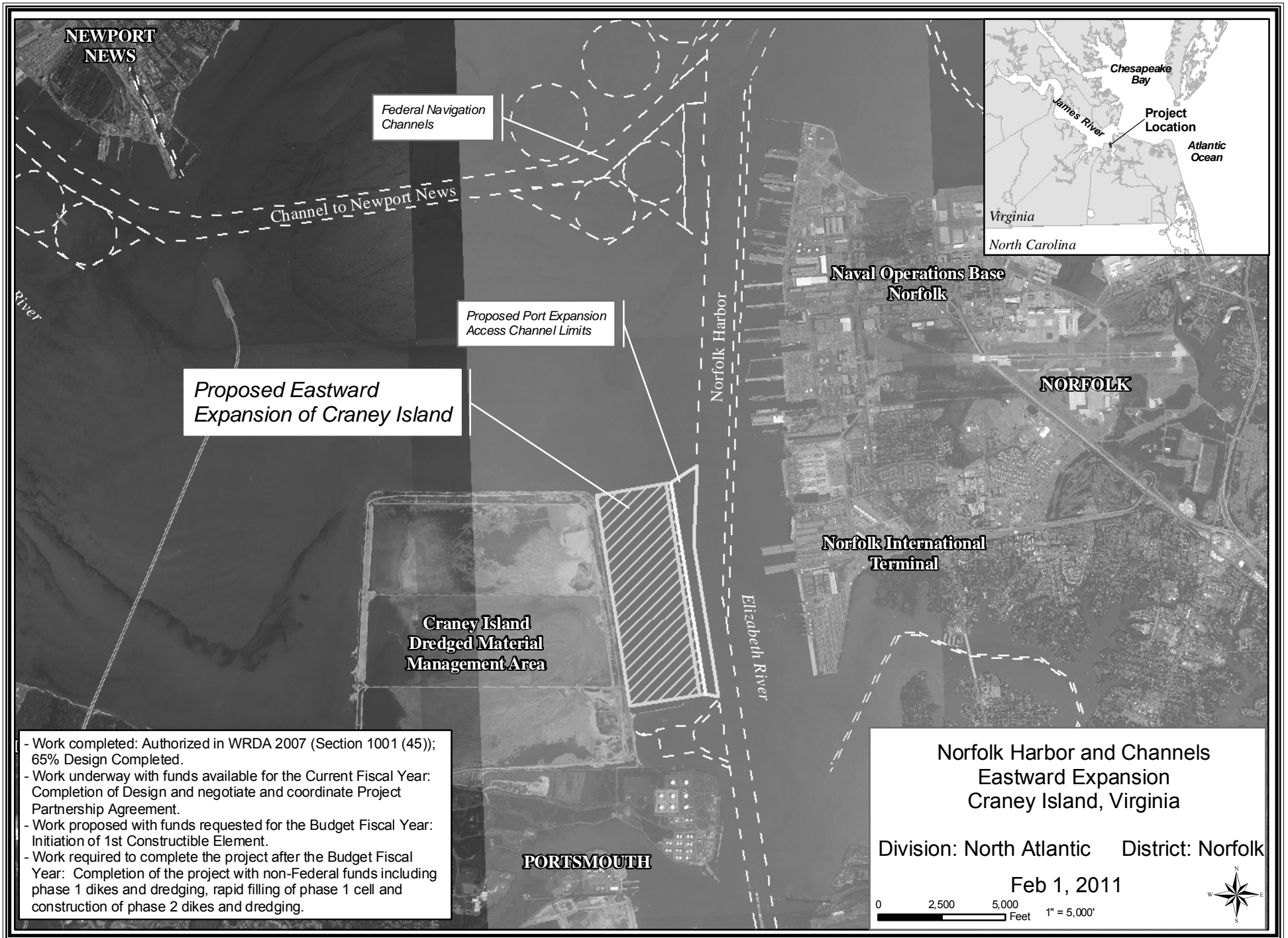
STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement (EIS) was filed with the Environmental Protection Agency (EPA) on May 26, 2006. Clean Water Act, Coastal Zone Management Act, cultural resources, and Endangered Species Act compliance is complete.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were allocated in FY 2007. Cost sharing for the project is based upon the recommendations of the report of the Chief of Engineers dated October 24, 2006 (4 percent Federal and 96 percent non-Federal). Section 1001(45) of WRDA 2007 authorizes the project at a Federal cost share of 50 percent.

Division: North Atlantic

District: Norfolk

Norfolk Harbor, Craney Island



NEWPORT NEWS

Federal Navigation Channels

Channel to Newport News

Proposed Port Expansion Access Channel Limits

Proposed Eastward Expansion of Craney Island

Craney Island Dredged Material Management Area

Norfolk Harbor

Elizabeth River

Naval Operations Base Norfolk

NORFOLK

Norfolk International Terminal

PORTSMOUTH



- Work completed: Authorized in WRDA 2007 (Section 1001 (45)); 65% Design Completed.
- Work underway with funds available for the Current Fiscal Year: Completion of Design and negotiate and coordinate Project Partnership Agreement.
- Work proposed with funds requested for the Budget Fiscal Year: Initiation of 1st Constructible Element.
- Work required to complete the project after the Budget Fiscal Year: Completion of the project with non-Federal funds including phase 1 dikes and dredging, rapid filling of phase 1 cell and construction of phase 2 dikes and dredging.

**Norfolk Harbor and Channels
Eastward Expansion
Craney Island, Virginia**

Division: North Atlantic District: Norfolk

Feb 1, 2011

0 2,500 5,000 1" = 5,000'
Feet

Aquatic Ecosystem Restoration

Investigations

APPROPRIATION TITLE: Investigations, Fiscal Year 2012

Division: North Atlantic

Study	Total Estimated Federal Cost	Allocation Prior to FY 2009	Allocation FY 2009	Allocation FY 2010	Allocation FY 2011	Tentative Allocation FY 2012	Additional to Complete After FY 2012
	\$	\$	\$	\$	\$	\$	\$
SURVEYS – (Aquatic Ecosystem Restoration)							
MARYLAND							
Chesapeake Bay Comprehensive Plan, MD, VA, PA, NY, WV, DE, DC	Annual Allocation	0	0	0	0	250,000	
Baltimore District	ARRA Allocation		0	0	0		
	Total Allocations	300,000	0	0	0	250,000	50,000

The Chesapeake Bay watershed and tidal tributaries is the single largest estuary in the United States with a surface area of approximately 4,400 square miles. It is approximately 200 miles long and varies from 4 to 30 miles in width. The Chesapeake Bay's ecosystem is an intricate and delicate connection of terrestrial and aquatic habitats. It is composed of thousands of miles of river and stream habitat that interconnect the land, water, living resources and human communities of the Bay watershed. Long-term protection of this unique ecosystem is essential. These vital habitats, including open water, submerged aquatic grasses, tidal and non-tidal marshes, freshwater wetlands and vernal pools, streams and forests, support species abundance and diversity, which is the bedrock to sustainable ecosystems. The Section 905 (b) analysis is evaluating if there is a federal interest to pursue further comprehensive feasibility level studies. An emphasis during the study of the comprehensive plan, or integrated watershed management plan (IWMP) will focus on cross-cutting problem identification, identifying alternatives and recommending technical solutions and implementation strategies. The comprehensive plan will include existing Federal, State and Local plans and will address the most recent Chesapeake Bay Agreement commitments and Executive Order 13508, which mandates the integration of living resource protection and restoration, vital habitat protection and restoration, water quality protection and restoration, sound land use, and stewardship and community engagement. The State of Maryland and Commonwealth of Virginia have expressed a strong interest in identifying and implementing solutions to these problems. Both states understand the cost-sharing requirements and financial requirements for the feasibility level studies. The reconnaissance phase is scheduled for completion in March 2013, which is 18 months after initiation of the study.

Study	Total Estimated Federal Cost	Allocation Prior to FY 2009	Allocation FY 2009	Allocation FY 2010	Allocation FY 2011	Tentative Allocation FY 2012	Additional to Complete After FY 2012
	\$	\$	\$	\$	\$	\$	\$
SURVEYS – (Aquatic Ecosystem Restoration)							
VIRGINIA							
Chowan River Basin, Comprehensive Plan, VA and NC Norfolk District	Annual Allocation	0	96,000	130,000	0	124,000	
	ARRA Allocation		0	0			
	Total Allocations	350,000	96,000	130,000	0	124,000	0

The Chowan River Basin is about 130 miles long and drains an area of 5,000 square miles in southeastern Virginia and northeastern North Carolina. Sixteen counties or portions thereof are in the Chowan River Basin: Southampton, Greensville, Brunswick, Mecklenburg, Lunenburg, Nottoway, Dinwiddie, Sussex, Prince George, Surry, and Isle of Wight in Virginia and Chowan, Gates, Bertie, Hertford, and Northampton in North Carolina. The Chowan River basin originates in Virginia with the Nottoway and Blackwater Rivers forming the Chowan River just south of the North Carolina state line and flows 51 miles emptying into the Albemarle Sound. A third major tributary, to the Chowan River basin is the Meherrin River, which empties into the Chowan River about 36 miles above the mouth. There are four authorized Federal navigation improvements in the basin. These include a 10-foot deep channel along the Meherrin River, a 12-foot deep channel along the Chowan River, a 12-foot deep channel on the Blackwater River, and a 15-foot wide naturally deep recreational navigation channel in the Nottoway River. There are no Federal flood control projects in the Chowan River Basin.

The Chowan River Basin historically has been rich in natural resources. About 70 percent of the basin is forested and wetlands are present in varying degrees. Estuarine fishing during the spring includes herring, striped bass, and shad. Both the Nottoway and Blackwater Rivers flow through wilderness areas of cypress swamps and scenic forests. However, major erosion of streambanks in cropland areas is threatening the aquatic ecosystem resources within the basin. In addition, storm events have caused major flooding to residential, business, and agricultural areas within the basin. Major floods occurred in 1940 and 1972 causing damages to agricultural lands and to the communities of Emporia and Lawrenceville, Courtland, Stoney Creek and the City of Franklin. More recently, Hurricane Floyd in September 1999 caused over \$6.2 million in damages in the City of Franklin. The Section 905 (b) analysis is evaluating if there is a federal interest to pursue further comprehensive feasibility level studies for aquatic ecosystem restoration, flood risk management, navigation, and erosion control measures. An emphasis during the study is being placed on restoring the aquatic ecosystem, basin wetlands, and forest buffers that are being lost to erosion from storm induced flood events. Storm damages from Hurricanes Dennis, Floyd, Isabel, and the October 2006 storm event have heightened local awareness for improving water resource measures within the basin and the several communities have expressed willingness to cost-share their financial portion of any future feasibility phase studies.

The reconnaissance phase is scheduled to be completed in September 2012.

Study	Total Estimated Federal Cost	Allocation Prior to FY 2009	Allocation FY 2009	Allocation FY 2010	Allocation FY 2011	Tentative Allocation FY 2012	Additional to Complete After FY 2012
	\$	\$	\$	\$	\$	\$	\$
PRECONSTRUCTION ENGINEERING AND DESIGN – (Aquatic Ecosystem Restoration)							
MARYLAND							
Eastern Shore – Mid-Chesapeake Bay Island, MD	Annual Allocation		370,000	156,000	314,000	169,000	169,000
Baltimore District	ARRA Allocation			0	0		
	Total Allocations	5,250,000	370,000	156,000	314,000	169,000	4,072,000

The Mid Chesapeake Bay Island Ecosystem Restoration project will create 2,070 acres of remote island habitat in lower Dorchester County, Maryland through the beneficial use of dredged material. The project will reclaim two islands, one at James Island and the second at Barren Island and restore lost wetlands on both islands. James Island, an uninhabited island one mile offshore from Taylor’s Island, consists of three eroding island remnants totaling less than 100 acres. Barren Island, also an uninhabited island, consists of three eroding island remnants totaling about 180 acres. The project also has a protection feature at Barren Island through the construction of sills along the shoreline and breakwaters for 1,325 acres of submerged aquatic vegetation. The project supports Executive Order 13508.

The Chief’s Report for the project was signed on 24 August 2009. The recommended plan is for a 2,070-acre James Island restoration, 45 percent uplands and 55 percent wetlands, and environmental restoration at Barren Island. The recommended project, estimated to costs \$2,890,000,000 with an estimated Federal cost of \$1,880,000,000 and a n estimated non-Federal cost of \$1,010,000,000, would restore both islands to their historical dimensions and r estore lost wetlands and habitats. No benefit-cost ratio has been computed for this project because aquatic ecosystem restoration project benefits are not quantifiable in monetary terms. The Maryland Port Administration understands the requirements of local cooperation for PED requirements and is expected to be the non-Federal sponsor for this effort. The design agreement is scheduled for execution in June 2011. PED will ultimately be cost-shared at the rate for the project to be constructed but will be financed through the PED period at 25 percent non-Federal. Any adjustments that may be necessary to bring the non-Federal construction in line with the project cost-sharing will be accomplished in the first year of construction.

Total Estimated Preconstruction		Total Estimated Preconstruction	
Engineering and Design Effort Costs	\$7,000,000	Engineering and Design Costs	\$7,000,000
Initial Federal Share	5,250,000	Ultimate Federal Share	4,550,000
Initial Non-Federal Cost	1,750,000	Ultimate Non-Federal Cost	2,450,000

Consistent with the cost-sharing and financing concepts enacted by the Water Resources Development Acts of 1986 and 1996, as amended, local interest are required to provide all lands, easements, right-of-ways, relocations, and disposal areas; and pay 35% of all costs allocated to aquatic ecosystem restoration.

Fiscal year 2011 funds will be used to negotiate and execute a design agreement with the State of Maryland. Fiscal year 2012 funds will be used to continue preconstruction engineering and design of the Barren Island component of the project. The preconstruction engineering and design effort is scheduled for completion in September 2014.

Study	Total Estimated Federal Cost	Allocation Prior to FY 2009	Allocation FY 2009	Allocation FY 2010	Allocation FY 2011	Tentative Allocation FY 2012	Additional to Complete After FY 2012
	\$	\$	\$	\$	\$	\$	\$
PRECONSTRUCTION ENGINEERING AND DESIGN – (Aquatic Ecosystem Restoration)							
NEW JERSEY							
Hudson-Raritan Estuary, Annual Allocation		0	0	0	0	100,000	
Hackensack Meadowlands, NJ ARRA Allocation			0	0			
New York District Total Allocations	1,500,000	0	0	0	0	100,000	1,400,000

The project area encompasses approximately 8,450 acres of tidal wetlands in the Hackensack River Basin located in Bergen Essex and Hudson Counties, New Jersey. The Hackensack Meadowlands the largest remaining brackish tidal wetland complex in the Greater New York area. The area, about five miles west of Manhattan Island, is urban to suburban and has been heavily industrialized since the mid-nineteenth century. Since the 1890's, deforesting of the cedar stands, channel modifications, levee construction, and damming of the Hackensack River and its tributaries for irrigation and water supply purposes, has changed the estuary. Furthermore, the industrial activities, effluents discharges from local sources and highway stormwater systems, and leachates from former garbage dumps within the estuary, have contaminated portions of the meadowlands and degraded the wetlands producing an unfavorable environment for fish and wildlife.

The recommended plan for the Hackensack Meadowlands identified several areas for ecosystem restoration, including contaminant reduction measures, enhancement of wetlands, water quality improvements, and alteration of hydrology/hydraulics to improve water movement and quality within the Hackensack Meadowlands. Potential plans for ecosystem restoration include wetland restoration for aquatic and terrestrial habitats, circulation and flushing pattern alterations and bay recontouring. The recommended project, estimated to cost \$30,000,000, with the estimated Federal cost of \$19,500,000 and estimated non-Federal cost of \$10,500,000. No benefit-cost ratio has been computed for this project because aquatic ecosystem restoration project benefits are not quantifiable in monetary terms. The New Jersey Meadowlands Commission understands the requirements of local cooperation for PED. The design agreement is scheduled for execution in September 2011. PED will ultimately be cost-shared at the rate for the project to be constructed, but will be financed through the PED period at 25 percent non-Federal. Any adjustments necessary to bring the non-Federal contribution in line with the project cost-sharing will be accomplished in the first year of construction.

Total Estimated Preconstruction Engineering and Design Cost	\$2,000,000	Total Estimated Preconstruction Engineering and Design Cost	\$2,000,000
Initial Federal Share	\$1,500,000	Ultimate Federal Share	\$1,300,000
Initial Non-Federal Share	\$500,000	Ultimate Non-Federal Share	\$700,000

Consistent with the cost-sharing and financed stipulated by the Water Resources Development Acts of 1986 and 1996, as amended, local interests are required to provide all lands, easements, right-of-ways, relocations, and disposal areas; and pay 35 percent of all costs allocated to aquatic ecosystem restoration.

The FY 2012 funds will be used to initiate the preconstruction engineering and design phase. The preconstruction engineering and design effort is scheduled for completion in November 2015.

APPROPRIATION TITLE: Investigations, Fiscal Year 2012

Division: North Atlantic

Study	Total Estimated Federal Cost	Allocation Prior to FY 2009	Allocation FY 2009	Allocation FY 2010	Allocation FY 2011	Tentative Allocation FY 2012	Additional to Complete After FY 2012
	\$	\$	\$	\$	\$	\$	\$
SURVEYS – (Aquatic Ecosystem Restoration)							
NEW JERSEY							
Hudson-Raritan Estuary, Lower Passaic River, NJ			2,596,000	717,000	170,000	200,000	
New York District				0	0	200,000	
	4,500,000	2,596,000	717,000	170,000	200,000	200,000	617,000

The study area is located in Essex County, New Jersey, about five miles west of Battery of New York City and encompasses 17 miles of the lower Passaic River from the river's confluence with Newark Bay to Dundee Dam. The area is urban to suburban and has been heavily industrialized since the mid-nineteenth century. This industrial activity has resulted in the degradation of the wetlands, discharges of effluents into the river, and dumping of industrial waste resulting in contaminated sediments in the river that is unfavorable for fish and wildlife habitat.

The reconnaissance report for the Hudson-Raritan Estuary, approved in July 2000, found there is a Federal interest for further studies in the Lower Passaic River Basin. The feasibility study for the Lower Passaic River Basin will assess items that have a Federal interest for ecosystem restoration, including contaminant reduction measures, creation of wetlands, water quality improvements, and alteration of hydrology/hydraulics to improve water movement and quality with in the Lower Passaic River and sections of Newark Bay. The non-Federal sponsor is the New Jersey Department of Transportation, who executed cost-sharing agreement in June 2003. The restoration feasibility study is integrated with a CERCLA Superfund Remedial Investigation/Feasibility Study via the Urban Rivers Restoration Initiative with US Environmental Protection Agency.

Fiscal Year 2011 funds are being used to continue the feasibility phase, including finalizing the ecosystem restoration plan that is being coordinated with the EPA's early action plans for the lower 8.2 miles of the lower Passaic River in conjunction with their Superfund Remedial Investigation.

Fiscal Year 2012 funds will be used to continue the feasibility phase, including preparation of the Comprehensive Restoration Plan for the watershed. The estimated cost of the feasibility phase is \$9,000,000, which is to be cost shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of the study cost sharing is as follows:

Total Estimated Study Cost	\$9,000,000
Reconnaissance Phase (Federal)	0
Feasibility Phase (Federal)	4,500,000
Feasibility Phase (Non-Federal)	4,500,000

The reconnaissance phase was completed in June 2003. The feasibility study is scheduled for completion in September 2014.

APPROPRIATION TITLE: Investigations, Fiscal Year 2012

Division: North Atlantic

Study	Total Estimated Federal Cost	Allocation Prior to FY 2009	Allocation FY 2009	Allocation FY 2010	Allocation FY 2011	Tentative Allocation FY 2012	Additional to Complete After FY 2012
	\$	\$	\$	\$	\$	\$	\$
SURVEYS – (Aquatic Ecosystem Restoration)							
NEW YORK							
Hudson-Raritan Estuary, NY and NJ			6,007,000	956,000	157,000	200,000	400,000
New York District				0	0		
			6,007,000	956,000	157,000	200,000	400,000
	9,740,000						2,020,000

The Hudson Raritan Estuary study area includes the Port of New York and New Jersey. The study is evaluating restoration measures for eight water systems within the estuary which include: Jamaica Bay, Lower Bay New York Bay, Lower Raritan River, Arthur Kill and Kill Van Kull, Newark Bay, Hackensack River and Passaic Rivers; Lower Hudson River, Harlem River, East River, and Western Long Island Sound and Upper Bay. These waters and the surrounding shoreline, mudflats, intertidal marshes, and adjacent upland areas provide valuable habitat for fish, and wildlife resources, and migrating birds along the Atlantic flyway. The area is the habitat for several endangered species, such as, the shortnosed sturgeon, sea turtles, peregrine falcons, piping plover, and rosette terns.

The reconnaissance report for the Hudson-Raritan Estuary, approved in July 2000, found there is a Federal interest for further studies. The feasibility study is assessing the viability of restoring balance to overall ecological functions and values within the Hudson-Raritan Estuary through the development of a Comprehensive Restoration Plan (CRP). The CRP was developed in partnership with the NY-NJ Hudson-Raritan Estuary Program and regional stakeholders to set forth a consensus vision, master plan and strategy to create future restoration opportunities and restore degraded habitat for coastal wetlands, oyster reefs, and waterbirds. In addition, contaminant reduction measures, water quality improvements, and alteration of hydrology/hydraulics to improve water movement and quality will be evaluated. The feasibility cost-sharing agreement was executed in July 2001 with the Port Authority of New York and New Jersey.

Fiscal Year 2011 funds are being used to continue the feasibility phase of the study, initiate the NEPA document, ecological benefits and costs analyses, public outreach, coordination with regional stakeholders, and finalize the draft CRP.

Fiscal Year 2012 funds will be used to continue the feasibility phase of the study, including of the NEPA document, benefits and costs analyses of potential restoration plans and continuation of the public outreach program. The estimated cost of the feasibility phase is \$19,000,000, which is to be cost shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of the study cost sharing is as follows:

Total Estimated Study Cost	\$19,240,000
Reconnaissance Phase (Federal)	240,000
Feasibility Phase (Federal)	9,500,000
Feasibility Phase (Non-Federal)	9,500,000

The reconnaissance phase was completed in July 2001. The feasibility study is scheduled for completion in December 2014.

APPROPRIATION TITLE: Investigations, Fiscal Year 2012

Division: North Atlantic

Study	Total Estimated Federal Cost	Allocation Prior to FY 2009	Allocation FY 2009	Allocation FY 2010	Allocation FY 2011	Tentative Allocation FY 2012	Additional to Complete After FY 2012
	\$	\$	\$	\$	\$	\$	\$
PRECONSTRUCTION ENGINEERING AND DESIGN – (Aquatic Ecosystem Restoration)							
NEW JERSEY							
Jamaica Bay, Marine Park and Plumb Beach, NY	Annual Allocation	0	0	170,000	170,000	170,000	
New York District	ARRA Allocation		0	0			
	Total Allocations	1,500,000	0	0	170,000	170,000	990,000

Jamaica Bay is located in the Borough of Queens and Brooklyn in New York City. The Bay is about 8 miles long and 4 miles wide covering 26 square miles and opens to the Atlantic Ocean via Rockaway Inlet. Marine Park and Plumb Beach are located on the north side of Rockaway Inlet. The project area is a vital link in the northeast regional coastal ecology with over 300 species of birds utilizing the bay as a primary junction along the Atlantic Flyway, a major migratory route for east coast waterfowl. In addition, various parts of the bay have been declared critical habitat for federally protected species including piping plovers, sea turtles, and short nose sturgeons. The bay also serves as a spawning and nursing habitat for many species of anadromous and estuarine fish. The feasibility study recommended ecosystem projects at eight specific sites to restore the overall Jamaica Bay, including the Marine Park and Plumb Beach areas. The recommended ecosystem projects, estimated to cost \$200,000,000, with the estimated Federal cost of \$130,000,000 and estimated non-Federal cost of \$70,000,000, would restore the overall Jamaica Bay through wetland restoration of aquatic and terrestrial habitats, providing alterations for improved circulation and flushing patterns and bay recontouring. No benefit-cost ratio has been computed for this project because it is an aquatic ecosystem restoration project and benefits are not quantifiable in monetary terms. The New York State Department of Environmental Protection understands the requirements of local cooperation for PED and is expected to be the non-Federal sponsor for this effort. The design agreement is scheduled for execution in March 2012. PED will ultimately be cost-shared at the rate for the project to be constructed, but will be financed through the PED period at 25 percent non-Federal. Any adjustments that may be necessary to bring the non-Federal construction in line with the project cost-sharing will be accomplished in the first year of construction.

Total Estimated Preconstruction Engineering and Design Cost	\$2,000,000	Total Estimated Preconstruction Engineering and Design Cost	\$2,000,000
Initial Federal Share	1,500,000	Ultimate Federal Share	1,300,000
Initial Non-Federal Share	500,000	Ultimate Non-Federal Share	700,000

Consistent with the cost-sharing and financing stipulated by the Water Resources Development Acts of 1986 and 1996, as amended, local interests are required to provide all lands, easements, right-of-ways, relocations, and disposal areas; and pay 35 percent of all costs allocated to aquatic ecosystem restoration.

In Fiscal Year 2011, feasibility phase funds are being used to complete the feasibility study including the Independent External Peer Reviews. Fiscal Year 2011 PED funds are being used to prepare the project management plan for design and continue the negotiations of the design agreement with the non-Federal sponsor.

Fiscal Year 2012 funds will be used to continue preconstruction engineering and design. The design phase is scheduled for completion in September 2014.

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2009 \$	Allocation FY 2009 \$	Allocation FY 2010 \$	Allocation FY 2011 \$	Tentative Allocation FY 2012 \$	Additional to Complete After FY 2012 \$
PRECONSTRUCTION ENGINEERING AND DESIGN – (Aquatic Ecosystem Restoration) VIRGINIA							
Lynnhaven River Basin, Virginia Beach, VA		0	0	0	50,000	300,000	
Norfolk District		0	0	0	50,000	300,000	550,000
Annual Allocation							
ARRA Allocation							
Total Allocations	900,000						

The Lynnhaven River Basin is located in Virginia Beach, Virginia, on the south shore of the Chesapeake Bay. The river drains approximately 50 square miles of watershed in southeastern Virginia and flows northerly emptying into the Chesapeake Bay. The river basin was once a highly productive ecosystem, producing the world famous Lynnhaven oyster. However, residential and commercial development, and the loss of wetlands and forested buffers have increased sedimentation, which degraded the ecosystem and water quality, causing the oyster population to decline to essentially no marketable production today. Only 900 acres of wetlands exist today, half of the acreage present 30 years ago. The feasibility study recommended ecosystem projects are five specific sites to restore or enhance 38 acres of wetlands, 32 acres of essential fish habitat, 94 acres of submerged aquatic vegetation, and 22 acres of scallops beds in the watershed. These recommended ecosystem projects are estimated to cost \$20,000,000, with an estimated Federal cost of \$13,000,000 and an estimated Non-Federal cost of \$7,000,000. No benefit-cost ratio has been computed for this project because it is an aquatic ecosystem restoration project and benefits are not quantifiable in monetary terms. The potential project sponsor is the City of Virginia Beach, VA, who fully understands the cost-sharing requirements for the project and is ready to execute the design agreement in September 2011. Preconstruction, engineering and design (PED) will ultimately be cost shared for the project to be constructed but will be financed through PED period at 25 percent non-Federal. Any adjustments that may be necessary to bring the non-Federal contribution in line with the project cost sharing will be accomplished in the first year of construction.

Total Estimated Preconstruction Engineering and Design Cost	\$1,200,000	Total Estimated Preconstruction Engineering and Design Cost	\$1,200,000
Initial Federal Share	900,000	Ultimate Federal Share	780,000
Initial Non-Federal Share	300,000	Ultimate Non-Federal Share	420,000

Consistent with the cost-sharing and financed concepts enacted by the Water Resources Development Acts of 1986 and 1996, as amended, local interests are required to provide all lands, easements, right-of-ways, relocations, and disposal areas; and pay 35 percent of all costs allocated to aquatic ecosystem restoration.

Fiscal Year 2011 funds are being used to prepare the project management plan for design and negotiate and execute the design agreement with the non-Federal sponsor.

Fiscal Year 2012 funds will be used to continue preconstruction engineering and design. The design phase is scheduled for completion in September 2013.

APPROPRIATION TITLE: Investigations, Fiscal Year 2012

Division: North Atlantic

Study	Total Estimated Federal Cost	Allocation Prior to FY 2009	Allocation FY 2009	Allocation FY 2010	Allocation FY 2011	Tentative Allocation FY 2012	Additional to Complete After FY 2012
	\$	\$	\$	\$	\$	\$	\$
SURVEYS – (Aquatic Ecosystem Restoration)							
NEW HAMPSHIRE							
Merrimack River Watershed Study, NH and MA	Annual Allocation		1,634,000	215,000	170,000	200,000	200,000
New England District	ARRA Allocation			0	0		
	Total Allocations	5,550,000	1,643,000	215,000	170,000	200,000	3,072,000

The Merrimack River originates in Franklin, New Hampshire at the confluence of the Pemigewasset and Winnepesaukee Rivers and flows southerly towards the Massachusetts border then easterly towards the coast. The Merrimack River basin encompasses approximately 5,010 square miles and is the fourth largest watershed in New England. The main stem of the river is about 116 miles in length with about 74 miles in New Hampshire and 42 miles in Massachusetts. The headwaters are located in the White Mountain National Forest. The estuary includes 2,500 acres of coastal wetlands and is bordered by the Plum Island National Wildlife Refuge. Existing uses include aquatic habitat for fish and wildlife, water supply, recreation, hydropower production and commercial shell fishing. The Merrimack River supports anadromous fisheries and endangered species. Although significant improvements have been made to the overall quality of the Merrimack River, many problems exist including lack of fish passage, loss of habitat, degraded wetlands and poor water quality. The Corps study will help define the overall condition of the watershed and allow for science-based decisions on prioritized investments to improve water quality and ecosystem restoration. The Section 905(b) analysis was certified on 25 January 2002, which found there was a Federal interest to pursue comprehensive studies in the Merrimack River Watershed. A cost-sharing agreement was executed with the City of Lowell, representing the Merrimack Community Coalition, on 20 February 2002 for the Lower Merrimack River Basin (LMRB) study. Phase I of the LMRB study was completed in August 2006. A second cost-sharing agreement was signed with the New Hampshire Department of Environmental Services on 25 August 2006 to begin investigations of the Upper Merrimack River Basin (UMRB).

Fiscal Year 2011 funds are being used to continue UMRB investigations, including computer modeling between Manchester and Lincoln, New Hampshire of existing conditions with a focus on summer flow conditions. The model will combine watershed modeling, stream flow analysis and water quality analysis, to evaluate existing conditions including aquatic habitat requirements and competing water use scenarios. These funds will also be used for Phase 2 studies of the LMRB; including additional existing conditions assessments of tributary water quality and their impact on the lower main stem river, use attainability analysis and nutrient (phosphorus and nitrogen) impact evaluations.

Funds requested for Fiscal Year 2012 will be used to continue UMRB and LMRB investigations, including additional watershed modeling, data collection and analysis of restoration alternatives.

APPROPRIATION TITLE: Investigations, Fiscal Year 2012

Division: North Atlantic

Study	Total Estimated Federal Cost	Allocation Prior to FY 2009	Allocation FY 2009	Allocation FY 2010	Allocation FY 2011	Tentative Allocation FY 2012	Additional to Complete After FY 2012
	\$	\$	\$	\$	\$	\$	\$
SURVEYS – (Aquatic Ecosystem Restoration) NEW HAMPSHIRE							
Merrimack River Watershed Study, NH and MA New England District							

The estimated cost of the feasibility study is \$7,200,000, and was originally to be cost shared on a 50-50 percent basis by Federal and non-Federal interests. This cost sharing was modified to 75-25 by Section 2010 of WRDA 2007. For those agreements for Section 729 assessments that were executed on or after 11 December 2000, the agreement is to be amended to change the revised cost sharing requirement. The agreement with New Hampshire Department of Environmental Services for the Upper Merrimack River Watershed Study was amended on 30 April 2008, and the agreement with the City of Lowell for the Lower Merrimack River Watershed Study was amended on 30 October 2009. . The change in the cost share is retroactive to the start of the study.

Based upon this change, the cost sharing has been changed as shown:

	Original	Revised
Total Estimated Study Cost	\$7,350,000	7,350,000
Reconnaissance Phase (Federal)	150,000	150,000
Feasibility Phase (Federal)	3,600,000	5,400,000
Feasibility Phase (Non-Federal)	3,600,000	1,800,000

The reconnaissance phase was completed in February 2002. The feasibility study is scheduled to be completed in September 2017.

APPROPRIATION TITLE: Investigations, Fiscal Year 2012

Division: North Atlantic

Study	Total Estimated Federal Cost	Allocation Prior to FY 2009	Allocation FY 2009	Allocation FY 2010	Allocation FY 2011	Tentative Allocation FY 2012	Additional to Complete After FY 2012
	\$	\$	\$	\$	\$	\$	\$
SURVEYS – (Aquatic Ecosystem Restoration)							
MASSACHUSETTS							
Pilgrim Lake, Truro and Provincetown, MA		467,000	10,000	10,000	262,000	113,000	
New England District			0	0			
	ARRA Allocation		10,000	10,000	262,000	113,000	0
	Total Allocations	862,000	467,000	10,000	10,000	262,000	113,000

The study area encompasses the Massachusetts and Cape Cod Bays (MCCB) coastal shoreline and associated waters within the Commonwealth of Massachusetts, including the EPA designated national estuary of MCCB. The biologically diverse ecosystem created by the many natural salt marshes along the Massachusetts coast has historically provided exceptionally productive fish and wildlife habitat. Salt marshes provide significant economic and environmental benefits for the region by providing flood storage, filtering pollutants, and supporting commercial fisheries as well as recreational fishing and tourism. Over the past century, many of these natural salt marshes have been lost or degraded by the construction of transportation facilities and other coastal development. There are 25 navigation and 11 beach erosion control projects in this region of Massachusetts. Several of these projects involved the disposal of dredged material in coastal wetlands or salt marshes such as the Green Harbor project. Dredged material was disposed of in Town Marsh filling approximately 35 acres of productive salt marsh above mean high tide, resulting in a relatively unproductive upland habitat. Studies will evaluate this and other sites to determine measures to restore the ecological productivity of the MCCB coastline. This study is consistent with the objectives of Coastal America to restore all degraded salt marshes in the Commonwealth and is supported by the Executive Office of Energy and Environmental Affairs, Department of Transportation and numerous Federal agencies, as evidenced by their signing a Memorandum of Understanding to restore Massachusetts wetlands. The reconnaissance report, certified in August 2001, recommended feasibility phase studies to identify potential solutions to restore lost or degraded salt marshes by restoring the natural tidal exchange.

A feasibility cost-sharing agreement was executed with the Mystic Valley Development Commission on 15 October 2002 to study environmental restoration measures along the Malden River in the communities of Malden, Medford and Everett, Massachusetts. A second feasibility cost-sharing agreement was executed on 1 April 2005 with the Massachusetts Department of Coastal Zone Management for study of environmental restoration measures at Pilgrim Lake in Truro and Provincetown, Massachusetts. Tidal flow into Pilgrim Lake was blocked by the construction of the railroad and Route 6 Highway. The name of Pilgrim Lake was recently changed to East Harbor, its name prior to being cut off from tidal flow. Tidal exchange is now limited to a single 4-foot diameter culvert. Feasibility studies will evaluate alternatives to restore the natural tidal exchange and ecological productivity of the 490-acre estuary and surrounding salt marsh. The project will restore habitat for ecologically important estuarine fish, benthic organisms, and water birds. The project sponsor has expressed interest in expanding the Pilgrim Lake Feasibility Study to include investigation of the adjacent Herring River.

Fiscal Year 2011 funds are being used to continue feasibility study of Pilgrim Lake and Herring River, including evaluation of restoration alternatives.

Funds requested for Fiscal Year 2012 will be used to continue the Pilgrim Lake and Herring River Interim Feasibility Study, including development of restoration alternatives for the Herring River and preparation of the draft Feasibility Report and Environmental Assessment.

APPROPRIATION TITLE: Investigations, Fiscal Year 2012

Division: North Atlantic

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2009 \$	Allocation FY 2009 \$	Allocation FY 2010 \$	Allocation FY 2011 \$	Tentative Allocation FY 2012 \$	Additional to Complete After FY 2012 \$
SURVEYS – (Aquatic Ecosystem Restoration) MASSACHUSETTS Pilgrim Lake, Truro and Provincetown, MA New England District							

The estimated cost of the feasibility phase is \$1,400,000, which is to be shared on a 50-50 percent basis by the Federal and non-Federal interests. A summary of the study cost sharing is as follows:

Total Estimated Study Cost	\$1,542,000
Reconnaissance Phase (Federal)	162,000
Feasibility Phase (Federal)	700,000
Feasibility Phase (Non-Federal)	700,000

The reconnaissance phase was completed in October 2002. The feasibility study is scheduled to be completed in December 2012.

APPROPRIATION TITLE: Investigations, Fiscal Year 2012

Division: North Atlantic

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2009 \$	Allocation FY 2009 \$	Allocation FY 2010 \$	Allocation FY 2011 \$	Tentative Allocation FY 2012 \$	Additional to Complete After FY 2012 \$
SURVEYS – (Aquatic Ecosystem Restoration)							
PENNSYLVANIA							
Schuylkill River Basin, Wissahickon Creek Basin Philadelphia District	Annual Allocation ARRA Allocation Total Allocations	460,000 460,000	0 258,800 258,800	90,000 34,903 124,903	214,000 214,000	200,000 200,000	117,297

This study area is located in southeastern Pennsylvania, along the Wissahickon Creek, a tributary to the Schuylkill River. The 25-mile long creek is about 13 miles upstream of the confluence with the Delaware River in Philadelphia, Pennsylvania, draining an approximate area of 64 square miles. High water flows during storm events have degraded the ecosystem and water quality within the creek due to sedimentation from streambank erosion, as well as causing flood damages in the communities of Whitpain, Lower Gwynedd, Whitmarsh, Springfield, Ambler, West Ambler, Lansdale, Ft. Washington and Abington, Pennsylvania. Major floods occurred in 1973, 1975, 1976, 1978, 1979, and 1982, 1996, 1999.

The Section 905 (b) analysis was certified on August 16, 2002. This interim feasibility study will evaluate potential solutions for ecosystem restoration, flood plain management measures, streambank erosion control, water quality management, stream flow and corridor management, and geographic information system modeling, as well as opportunities for local flood damage reduction measures in the City of Philadelphia, Pennsylvania. The feasibility cost-sharing agreement was executed on April 12, 2004 with the City of Philadelphia, PA. Additional feasibility studies within the Wissahickon Creek watershed will be negotiated with Montgomery County and the Pennsylvania Department of Environmental Protection upon prioritization of the studies by them and the availability of local funding.

Fiscal Year 2011 funds are being used to continue the feasibility study, including further analysis of alternative plans, incremental cost analysis, environmental benefits and potential plan optimization.

Fiscal Year 2012 will be used to continue the feasibility study, including identification of the recommended plan. The estimated cost of the feasibility phase is \$2,500,000, which is to be cost-shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of the study cost sharing is as follows:

Total Estimated Study Cost	\$2,625,000
Reconnaissance Phase (Federal)	125,000
Feasibility Phase (Federal)	1,250,000
Feasibility Phase (Non-Federal)	1,250,000

The reconnaissance phase was completed April 2004. The feasibility study is scheduled for completion in September 2013.

APPROPRIATION TITLE: Investigations, Fiscal Year 2012

Division: North Atlantic

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2009 \$	Allocation FY 2009 \$	Allocation FY 2010 \$	Allocation FY 2011 \$	Tentative Allocation FY 2012 \$	Additional to Complete After FY 2012 \$
SURVEYS – (Aquatic Ecosystem Restoration)							
VIRGINIA							
Upper Rappahannock River, Comprehensive Plan, VA Norfolk District		Annual Allocation	98,000	96,000	90,000	200,000	200,000
		ARRA Allocation		0	0		
	684,000	Total Allocations	98,000	96,000	90,000	200,000	200,000
							0

The Rappahannock River Basin, a 2,800 square miles watershed, is the fourth largest within the Chesapeake Bay Watershed. The area is primarily dominated by forest and agricultural use. The study will focus on the upstream tributaries, including the Rapidan River, a 600 -square-mile sub-basin, which begins at the confluence of the Upper Rappahannock River about 14 miles west of Fredericksburg, VA.

The initial Section 905 (b) report was completed in June 1998. Phase I of this effort consisted of the removal of the Embury Dam that was completed in 2004. An amended Section 905 (b) report for Phase II of this effort, completed in June 2009, found there is continued Federal interest for further feasibility studies. The current feasibility study will assess the viability of restoring balance to overall ecological functions and values, evaluating potential aquatic ecosystem restoration solutions in the upstream tributaries areas, and evaluating the addition of improved spawning and foraging areas for fish and wildlife, restoration of the riparian habitat, and improving water quality. The potential sponsor for the feasibility phase of the study is the Commonwealth of Virginia, who understands the cost-sharing requirements for the feasibility phase of the study. The feasibility cost-sharing agreement is scheduled to be executed in April 2011. This effort will also address needs in consultation with Executive Order 13508.

Fiscal Year 2011 funds are being used to initiate the feasibility phase of the study, including negotiating and executing of the feasibility cost sharing agreement with the non-Federal sponsor, data gathering for cultural and environmental analyses, and initiation of the public involvement programs.

Fiscal Year 2012 funds will be used to continue the feasibility phase of the study, including data gathering for cultural and environmental analyses. The estimated cost of the feasibility phase is \$1,172,000, which is to be cost shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of the study cost sharing is as follows:

Total Estimated Study Cost	\$1,270,000
Reconnaissance Phase (Federal)	98,000
Feasibility Phase (Federal)	586,000
Feasibility Phase (Non-Federal)	586,000

The reconnaissance phase is scheduled for completion in April 2011. The feasibility study is scheduled for completion in September 2012.

Construction

APPROPRIATION TITLE: Construction – Aquatic Ecosystem Restoration

PROJECT: Assateague Island Restoration, Maryland (Continuing)

LOCATION: The Town of Ocean City and adjacent areas of Worcester County comprise an area of 625 square miles including Assateague Island, Ocean City Inlet, and Chincoteague, Sinepuxent, Assawoman, and Isle of Wight Bays on the eastern shore of Maryland. Adjacent to Ocean City is the Assateague Island National Seashore and Assateague Island State Park.

DESCRIPTION: The project involves the short-term and long-term restoration of Assateague Island. The completed short-term restoration plan included dredging approximately 1.4 million cubic meters from Great Gull Bank and placing it on Assateague Island in the area between 2.5 kilometers and 12.0 kilometers south of the south jetty. The beach was widened varying distances based on the varying erosion rates. A low-storm berm was constructed to an approximate elevation of 3.3 meters National Geodetic Vertical Datum (NGVD) (averaging 0.8 meters in height) between approximately 5.1 kilometers and 7.9 kilometers south of the south jetty. The final placement and berm elevation was configured to minimize adverse impacts to the two federally-listed threatened species (piping plover and seabeach amaranth), that occur on the island, and to restore the integrity of the island. The continuing long-term phase of the project allows for the “mobile bypassing” of sand that would naturally have reached the island had the jetties never been built. Mobile bypassing will involve using a small mobile hopper dredge to remove sand that has been redirected to a number of sites, and then bypassing it to Assateague Island. This dredging takes place during the spring and fall of each year, using the Currituck, a small split-hull dredge built, owned, and operated by the Wilmington District. This schedule will provide sediment to the island on a periodic basis that will more closely mimic natural processes; the use of the exceptionally small Currituck will allow dredging to include the back bays.

AUTHORIZATION: Section 534 of Water Resources Development Act of 1996, PL 104-303.

REMAINING BENEFIT - REMAINING COST RATIO: Not applicable.

TOTAL BENEFIT - COST RATIO: Not applicable.

BASIS OF BENEFIT-COST RATIO: Not applicable.

SUMMARIZED FINANCIAL DATA	ACCUM. PCT. OF EST. FED COST	STATUS (1 Jan 2011)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	38,450,000			
Estimated Partner Cost (NPS)	25,250,000	Initial construction	100	Dec 2002
Total Estimated Construction Cost	63,700,000	Renourishment	16	TBD

PHYSICAL DATA
Environmental Restoration
Assateague Island – 5.6 miles x 95 foot width

Division: North Atlantic

District: Baltimore

Assateague Island, MD

SUMMARIZED FINANCIAL DATA (Continued)

Allocations to 30 September 2008	16,265,560	
Allocation for FY 2009	478,000	
Allocation for FY 2010	500,000	
Recovery Act Allocations to Date	\$ 0	
Allocation for FY 2011	1,000,000	
Allocations through FY 2011	18,243,560	47
Allocation Requested for FY 2012	1,000,000	50
Programmed Balance to Complete after FY 2012	19,206,440	
Unprogrammed balance to Complete after FY 2012	0	

JUSTIFICATION: Construction of the jetties by the Corps of Engineers in 1934 is to stabilize the Ocean City Inlet interrupted the natural longshore transport of sand from Ocean City to Assateague, starving the northern end of Assateague Island. The northern 1.5-7 miles of Assateague has eroded at an accelerated rate since then. It is estimated that the induced erosion rate for this section of the island was 10.8 feet per year. The island is at severe risk of breaching which would change the dynamics of the area resulting in adverse physical, biological, and economic impacts in the area and threaten the habitat of several endangered species such as the piping plover. Barrier island geologic integrity must be maintained to conserve this important component of the Western Hemisphere Shorebird Reserve Network and considered among the most important areas for migratory shorebirds. 70% of seabeach amaranth habitat lost; 80% of Piping Plover habitat lost. The long term phase of the project is mitigating for the portion of the sand losses that are attributable to the inlet, not those due to natural erosion. The Ocean City Harbor and Inlet and Sinepuxent Bay MD project w/372 acres of barrier island habitat are protected by this mitigation.

FISCAL YEAR 2011: The current amount of \$1,000,000 is being used to continue dredging/restoration.

FISCAL YEAR 2012: The requested amount of \$1,000,000 will be used for restoration at northern end of Assateague Island.

NON-FEDERAL COSTS: None.

STATUS OF LOCAL COOPERATION: The sponsor for the project is the National Park Service who administers the Assateague Island National Seashore. The National Park Service has provided lands, easements and rights-of-way for the initial construction work and has agreed to cost share 50% of the long-term work. An agreement between the Park Service and the Corps was executed in September 2001.

COMPARISON OF FEDERAL COST ESTIMATES: The current USACE Federal cost estimate of \$38,450,000 is the same as the last estimate presented to Congress (FY 2011).

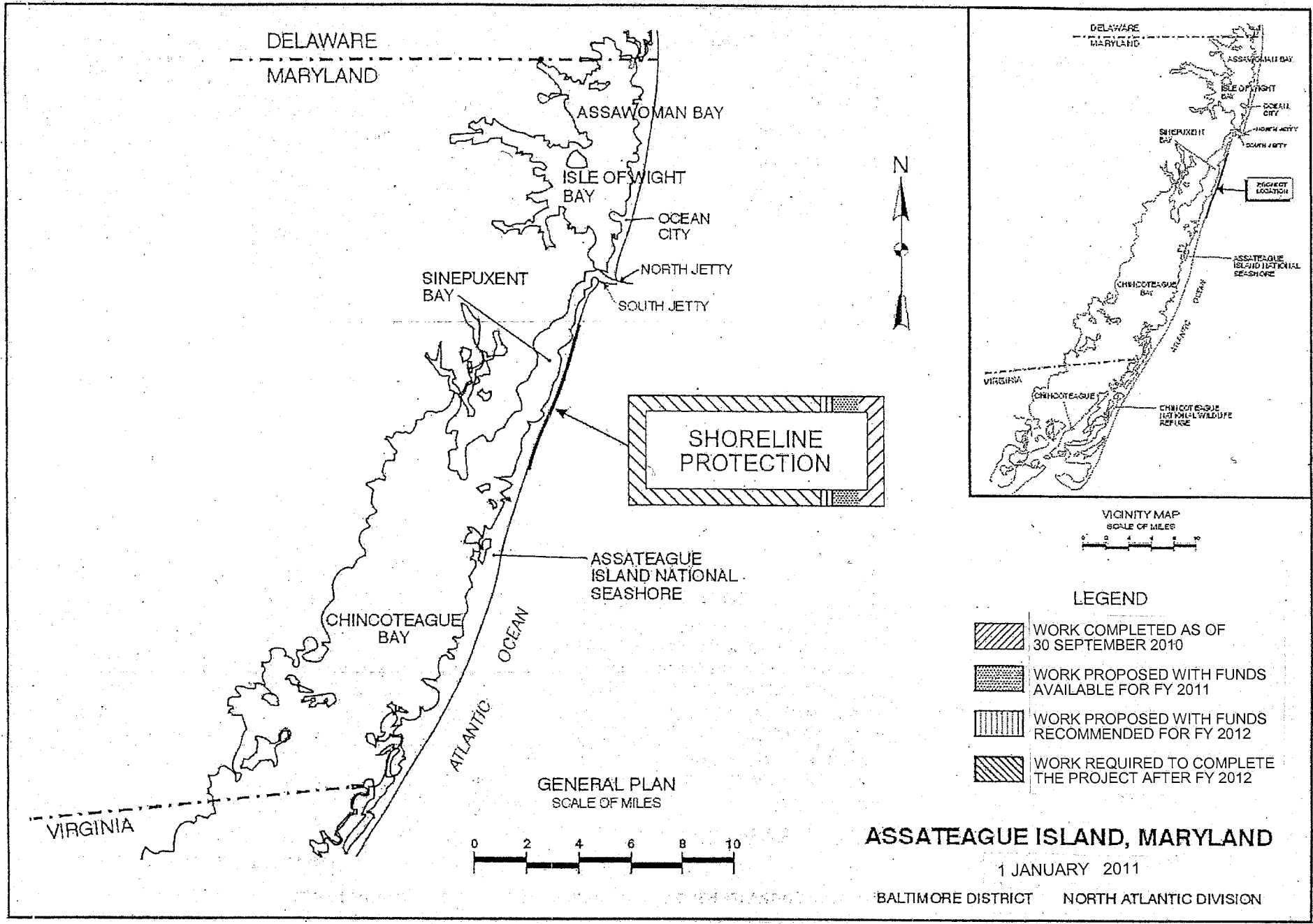
STATUS OF ENVIRONMENTAL IMPACT STATEMENT: A draft Environmental Impact Statement was incorporated in the draft Integrated Interim Report dated May 1997. The final Environmental Impact Statement was incorporated in the final feasibility report completed in June 1998.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1997. Funds to initiate construction were appropriated in FY 2001. The current appropriation limit of \$35 million will not allow for completion of the long term work.

Division: North Atlantic

District: Baltimore

Assateague Island, MD



DELAWARE
MARYLAND

ASSAWOMAN BAY

ISLE OF WIGHT
BAY

OCEAN
CITY

NORTH JETTY

SOUTH JETTY

SINEPUXENT
BAY

SHORELINE
PROTECTION

ASSATEAGUE
ISLAND NATIONAL
SEASHORE

CHINCOTEAGUE
BAY

ATLANTIC
OCEAN

GENERAL PLAN
SCALE OF MILES

VIRGINIA



DELAWARE
MARYLAND

ASSAWOMAN BAY

ISLE OF WIGHT
BAY

OCEAN CITY

SINEPUXENT BAY

NORTH JETTY

SOUTH JETTY

CHINCOTEAGUE BAY

ASSATEAGUE ISLAND NATIONAL SEASHORE

CHINCOTEAGUE ISLAND WILDLIFE REFUGE





VIRGINIA

ATLANTIC
OCEAN

VICINITY MAP
SCALE OF MILES



LEGEND

-  WORK COMPLETED AS OF 30 SEPTEMBER 2010
-  WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2011
-  WORK PROPOSED WITH FUNDS RECOMMENDED FOR FY 2012
-  WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2012

ASSATEAGUE ISLAND, MARYLAND

1 JANUARY 2011

BALTIMORE DISTRICT NORTH ATLANTIC DIVISION

APPROPRIATION TITLE: Construction, General – Aquatic Ecosystem Restoration

PROJECT: Chesapeake Bay Oyster Recovery, Maryland & Virginia (Continuing)

LOCATION: In the Chesapeake Bay as located in the State of Maryland and the Commonwealth of Virginia

DESCRIPTION: The first phase of the project consisted of a multi-agency Federal and State of Maryland program to restore oyster populations in Maryland's portion of the Chesapeake Bay. This project included construction and rehabilitation of oyster reefs to create disease-free oyster habitat; construction of seed bars for production and collection of disease-free oyster seed or "spat;" planting disease-free spat in locations which best foster oyster reproduction and health; and monitoring the performance of the project to increase oyster populations.

The second phase of the project consists of producing a long-term master plan for future restoration sites, and construction of oyster habitat restoration sites in Tangier and Pocomoke Sounds and the Great Wicomico and Lynnhaven Rivers in Virginia, as well as in several Chesapeake Bay tributaries in Maryland.

To date, 298 acres of oyster habitat have been created in Virginia, and 450 acres of habitat in Maryland.

AUTHORIZATION: Section 704(b) of Water Resources Development Act (WRDA) of 1986 (PL 99-662), as amended by Section 505 of WRDA 1996 (PL 104-303); Section 342 of WRDA 2000 (PL 106-541); Section 113 of the Energy and Water Development Appropriation Act, 2002; Section 126 of the Energy and Water Development Appropriations Act, 2006; and Section 5021 WRDA 2007 (PL 110-114).

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable.

TOTAL BENEFIT-COST RATIO: Not applicable.

INITIAL BENEFIT-COST RATIO: Not applicable.

BASIS OF BENEFIT-COST RATIO: Not applicable.

SUMMARIZED FINANCIAL DATA		ACCUM PCT. OF EST. FED COST	STATUS (1 Jan 2011)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	50,000,000				
Estimated Non-Federal Cost:	16,666,000		Entire Project	51	TBD
Cash Contributions	0				
Other Costs	16,666,000				
Total Estimated Project Cost	66,666,000				

Division: North Atlantic

District: Baltimore

Chesapeake Bay Oyster Recovery, MD and VA

SUMMARIZED FINANCIAL DATA: (Continued)		ACCUM PCT. OF EST FED COST	STATUS (1 Jan 2011)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Allocations to 30 September 2008	21,241,200				New oyster bars construction 2000 acres
Allocation for FY 2009	2,400,000				Existing oyster bars rehabilitation 135 acres
Allocation for FY 2010	2,000,000				Seed bars creation 100 acres
Recovery Act Allocations To Date	0				Oyster seed production
					Hatchery Spat transplanted - 500 million
Allocation for FY 2011	5,000,000				Natural Spat transplanted - 100,000 bushels
Allocations through FY 2011	30,641,200	61			
Allocation Requested for FY 2012	5,000,000	71			
Programmed Balance to Complete after FY 2012	14,358,800				
Unprogrammed Balance to Complete after FY 2012	0				

JUSTIFICATION: The Chesapeake Bay oyster population has declined dramatically since the turn of the century, largely due to the parasitic diseases, MSX, Dermo, and overharvesting. These diseases kill oysters before they reach maturity and marketable size. As a result, there has been a collapse in the oyster industry, with the 1995 harvest equating to less than one percent of the harvest 100 years ago. More significantly, the reduced oyster population has adversely impacted water quality in the Bay, due to the smaller size and numbers of oyster beds to filter and clean the water. Activities to restore physical oyster habitat and maintain water quality are critical to the economic and environmental survival of the Chesapeake Bay. Restoration of oyster populations in the bay is a high priority of the State of Maryland, the Commonwealth of Virginia, and the Chesapeake Bay Program. Over the past 12 years, the Baltimore and Norfolk Districts have been engaged in oyster restoration efforts in the Chesapeake Bay region in Maryland and Virginia, respectively. During this period, the Corps of Engineers has constructed over 700 acres of new oyster habitat. With the May 2009 executive order 13508, there is a renewed interest in Chesapeake Bay restoration on the national level; oysters are considered a keystone species for Bay restoration. As part of this project, the Corps will develop a long-term master plan to document the Corps' role in implementation of oyster restoration activities.

FISCAL YEAR 2011: The current amount is being applied as follows:

Fish and Wildlife Facilities:	Maryland	900,000
	Virginia	3,100,000
Planning, Engineering, and Design:	Maryland	300,000
	Virginia	450,000
Construction Management:	Maryland	50,000
	Virginia	200,000
Total		5,000,000

FISCAL YEAR 2012: The requested amount will be applied as follows:

Fish and Wildlife Facilities:	Maryland	1,845,000
	Virginia	2,160,000
Planning, Engineering, and Design:	Maryland	250,000
	Virginia	300,000
Construction Management:	Maryland	205,000
	Virginia	240,000
Total		5,000,000

Division: North Atlantic

District: Baltimore

Chesapeake Bay Oyster Recovery, MD and VA

NON-FEDERAL COSTS: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation Maintenance and Replacement Costs
Pay 25 percent of the cost allocated to fish and wildlife restoration (by work-in-kind credits) and bear all costs of operation, maintenance, repair, rehabilitation and replacement of fish and wildlife facilities.	\$16,666,000	\$0
Total Non-Federal Costs	\$16,666,000	

STATUS OF LOCAL COOPERATION: The State of Maryland and the Commonwealth of Virginia are the non-Federal project sponsors. The project cooperation agreement between the Corps of Engineers and the State of Maryland was executed in February 1997. An amendment to this agreement was executed in July 2002. The project cooperation agreement between the Corps and the Commonwealth of Virginia was executed in September 2001. To date, the States have fully complied with the requirements of local cooperation.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal estimate of \$50,000,000 is the same as the last estimate presented to Congress (FY 2011).

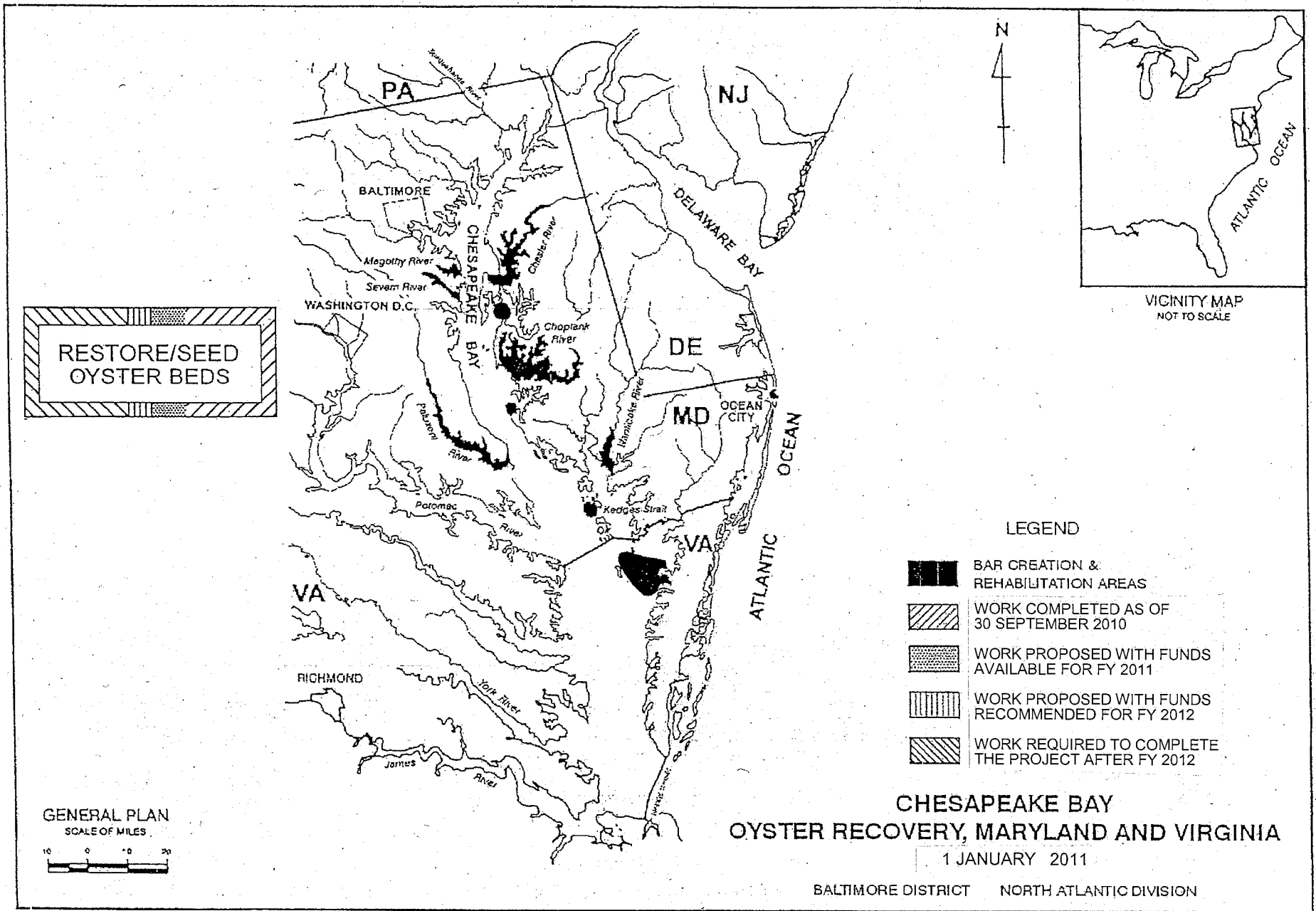
STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An environmental assessment and finding of no significant impact was completed in January 1996 for the Maryland activities. Supplemental environmental efforts for the Maryland activities were completed in July 1999, June 2002, and June 2009. Separate environmental assessments and findings of no significant impacts were prepared in 2001, 2003 and 2005 for Virginia activities in the Tangier Sound, Great Wicomico River and the Lynnhaven River.

OTHER INFORMATION: Funds to initiate construction were appropriated in FY 1995. Section 5021 of WRDA 2007 increased the authorized limit for this project to \$50 million.

Division: North Atlantic

District: Baltimore

Chesapeake Bay Oyster Recovery, MD and VA



APPROPRIATION TITLE: Construction, General – Ecosystem Restoration

PROJECT: Lower Cape May Meadows, Cape May Point, NJ (Continuing)

LOCATION: The Project area, along the southern Atlantic coast of New Jersey, includes Lower Cape May Meadows and the Borough of Cape May Point and extends approximately 2.5 miles. The project area is entirely in Cape May County.

DESCRIPTION: The project area is approximately 350 acres containing Cape May Point State Park and the Nature Conservancy's Cape May Migratory Bird Refuge. The Meadows consists of important coastal freshwater wetlands, which are vital resting areas for shorebirds and birds of prey during their seasonal migration along the Atlantic flyway. The project restores and protects fish and wildlife habitat and provides flood and storm damage reduction throughout the entire study area. The plan consists of a dune/berm 20 feet wide extending for a total length of 10,050 feet; planting of 18 acres of dune vegetation; seaward restoration of 35 acres of emergent wetland; elimination of 95 acres of the nuisance plant *Phragmites australis*; planting of 105 acres of wetland vegetation; creation of drainage ditches; installation of two weir-flow control structures; creation of six fish reservoirs; and construction of elements to create 25 acres of tidal marsh. The project also includes 650,000 cubic yards of periodic nourishment every 4 years over the 50-year project life, and monitoring and adaptive management over a 5-year period for the Lower Cape May Meadows freshwater wetlands restoration element.

AUTHORIZATION: Section 101 (a) (25) of WRDA 1999.

REMAINING BENEFIT-REMAINING COST RATIO: Not Applicable

TOTAL BENEFIT-COST RATIO: Not Applicable

INITIAL BENEFIT-COST RATIO: Not Applicable

BASIS OF BENEFIT-COST RATIO: Benefits and costs (October 1998 price level) are based on the Chief of Engineers Report dated 05 April 1999.

SUMMARIZED FINANCIAL DATA:		STATUS (1 Jan 2011)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	\$ 97,800,000	Initial Beachfill	100	Dec 2005
Initial Construction	\$13,038,000	Fish & Wildlife	100	Sept 2006
Periodic Nourishment	\$84,762,000	Entire Project	28	TBD
Estimated Non-Federal Cost	\$ 12,900,000	PHYSICAL DATA:		
Initial Cost	\$ 6,575,000	Dune/berm: 20 feet wide, total length 10,050 ft		
Cash Contribution	\$6,419,000	Plantings: 158 acres of dune, emergent wetland, and wetland		
Other	\$ 156,000	Creation of weir-flow control structures and fish reservoirs		
Periodic Nourishment	\$ 6,325,000	New tidal marsh: 25 acres		
Cash Contribution	\$6,325,000	Monitoring and adaptive management: 5 years		
		Periodic Nourishment: 4 year cycle for 50 years with monitoring		
Total Estimated Project Cost	\$110,700,000			

Division: North Atlantic

District: Philadelphia

Lower Cape May Meadows, Cape May Point, NJ

		ACCUM PCT OF EST FED COST
Allocations to 30 September 2008	\$17,822,927	
Allocation for FY 2009	\$ 144,000	
Allocation for FY 2010	\$ 378,000	
Recovery Act Allocations to Date	\$ 0	
Allocation for FY 2011	\$ 8,920,000	
Allocations through FY 2011	\$27,264,927	28
Allocation Requested for FY 2012	\$ 7,650,000	36
Programmed Balance to Complete after FY 2012	\$62,885,073 1/	
Unprogrammed Balance to Complete after FY 2012	\$ 0	

1/ 63 percent of project costs are allocable to the restoration of sand losses from operation and maintenance of Cape May Inlet. As authorized, the project provides that this portion be cost shared 90 percent Federal and 10 percent non-Federal, and that the remaining 37 percent of costs, which are allocable to storm damage reduction, be cost shared 65 percent Federal and 35 percent non-Federal. However, the budget proposes that 100 percent of the costs of renourishment allocable to the correction of navigation impacts (in this case, 63 percent of all costs) be paid with Civil Works funds.

JUSTIFICATION: Lower Cape May Meadows has been severely impacted by shoreline erosion linked to the Federal navigation project at Cape May Inlet completed in 1911. Erosion has resulted in the direct loss of beach and unique freshwater wetland habitat. Erosion to the dune system has left the remaining freshwater ecosystem in the Meadows substantially degraded through saltwater intrusion and subsequent topographical alteration by allowing ocean water overtopping during storm events. Since 1991, the dunes protecting the wetlands have been breached six times, resulting in saltwater intrusion to the freshwater wetlands. Very few plant or animal species have the adaptations needed to survive such large fluctuations or range of salinities (freshwater to saltwater). The saltwater intrusion has also encouraged the subsequent proliferation of the nuisance plant species *Phragmites australis*, also known as common reed. These conditions have significantly reduced the ability of the wetlands to support the wildlife and endangered plant species which reside there. It is estimated that an additional 147 acres of habitat will be lost by the year 2050 if shoreline erosion is to continue unabated.

Compounding the problem is the hydraulic/hydrologic relationship between Lower Cape May Meadows and the communities of Cape May Point and West Cape May. Lower Cape May Meadows serves as a buffer during storms between the ocean and the surrounding developed areas. When the Meadows area is inundated during storm events, the floodwaters flow into Cape May Point and the developed portions of Lower Township and West Cape May, flooding the low lying areas of these towns.

Division: North Atlantic

District: Philadelphia

Lower Cape May Meadows, Cape May Point, NJ

FISCAL YEAR 2011: The budgeted amount of \$8,920,000 will be applied as follows:

Item	Amount
Project Monitoring	\$ 250,000
Initiate 2 nd Periodic Nourishment Cycle	\$8,020,000
Planning, Engineering, and Design	\$ 250,000
Construction Management	\$ 400,000
Total	\$8,920,000

FISCAL YEAR 2012: The requested amount of \$7,650,000 will be applied as follows:

Project Monitoring	\$ 250,000
Complete 2 nd Periodic Nourishment Cycle	\$6,750,000
Planning, Engineering, and Design	\$ 250,000
Construction Management	\$ 400,000
Total:	\$7,650,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, as amended, the non-Federal sponsor must comply with the requirements listed below:

	Payments during Construction and Reimbursement	Annual Operation, Maintenance, and Replacement Costs
Provide all lands, easements, rights-of-way, and relocations.	\$ 156,000	
Provide initial construction costs assigned to non-mitigation portion of the project for hurricane and storm damage reduction and ecosystem restoration	\$ 3,249,000	
Provide initial construction costs assigned to mitigation portion of the project.	\$ 3,170,000	
Provide 35 percent of the costs of periodic renourishment allocable to storm damage reduction.	\$ 6,325,000	
Total Non-Federal Cost	\$12,900,000	

Division: North Atlantic

District: Philadelphia

Lower Cape May Meadows, Cape May Point, NJ

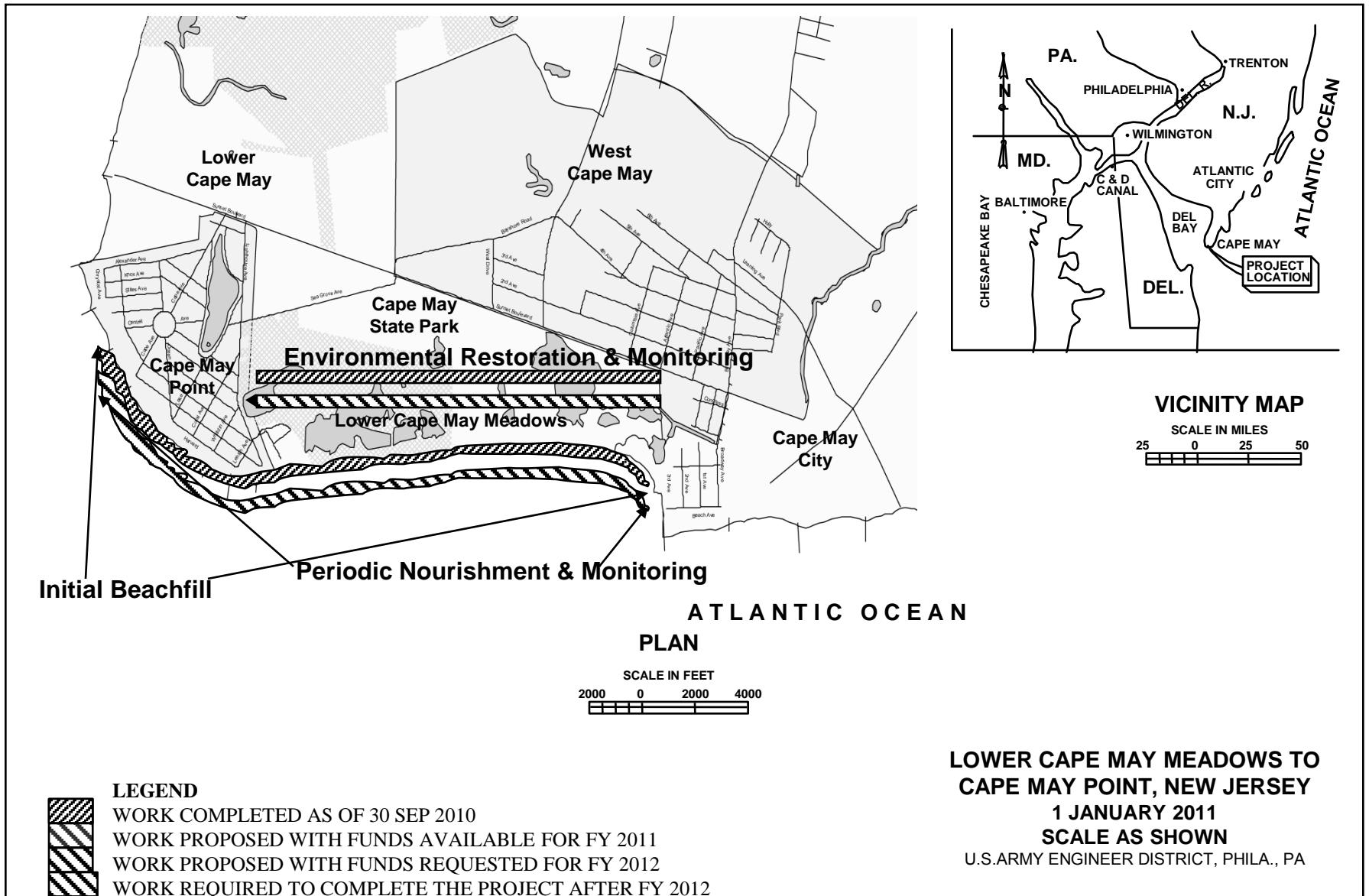
STATUS OF LOCAL COOPERATION: A Project Cooperation Agreement was signed with NJ Department of Environmental Protection on 28 July 2003.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$97,800,000 is a decrease of \$10,629,450 from the latest estimate (\$108,429,450) presented to Congress (FY 2011). This change includes the following items:

Item	Amount
Price De-escalation on Construction Features	- \$10,629,450
Total	- \$10,629,450

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Final Environmental Assessment was completed in November 1998.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1999. Funds to initiate construction were appropriated in FY 2002.



APPROPRIATION TITLE: Construction, General – Aquatic Ecosystem Restoration

PROJECT: Poplar Island, Maryland (Continuing)

LOCATION: Poplar Island is a group of islands located in the upper middle Chesapeake Bay approximately 34 nautical miles southeast of the Port of Baltimore and 1 mile northwest of Tilghman Island, Talbot County, MD.

DESCRIPTION: The environmental restoration project consists of reconstructing Poplar Island to its approximate size in 1847 (1,140 acres), using an estimated 40 million cubic yards of uncontaminated dredged material from maintenance dredging of the southern approach channels of the Baltimore Harbor and Channels navigation project. This will be accomplished through the construction of approximately 35,000 feet of armored dikes to contain the dredged material necessary to form the low and high marsh wetlands and upland habitat and to protect the 1,140-acre dredged material placement area from the severe wave activity in this region of the Chesapeake Bay. Section 3087 of WRDA 2007 authorized a \$260 million, 575-acre expansion of Poplar Island. The expansion would be approximately 29 percent wetlands, 47 percent uplands and 24 percent open water. The expansion would include a 5-foot raising of the existing uplands dikes on Poplar Island and would increase the overall capacity by 28 million cubic yards.

AUTHORIZATION: Section 537 of P.L. 104-303 (WRDA 1996), as amended by: Section 318 of P.L. 106-541 (WRDA 2000); and, Section 3087 of P.L. 110-114 (WRDA 2007).

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable.

TOTAL BENEFIT-COST RATIO: Not applicable.

INITIAL BENEFIT-COST RATIO: Not applicable.

BASIS OF BENEFIT-COST RATIO: Not applicable.

SUMMARIZED FINANCIAL DATA		ACCUM PCT. OF EST. FED COST	STATUS (1 Jan 2011)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	474,250,000				
Estimated Non-Federal Cost:	192,750,000		Entire Project	41	TBD
Cash Contributions	42,500,000				
Other Costs	150,250,000				
Total Estimated Project Cost	667,000,000				

Division: North Atlantic

District: Baltimore

Poplar Island, Maryland

SUMMARIZED FINANCIAL DATA: (Continued)

Allocations to 30 September 2008	176,260,100	
Allocation for FY 2009	9,412,000	
Allocation for FY 2010	7,078,000	
Recovery Act Allocations to date	911,000	
Allocations for FY 2011	1,530,000	
Allocations through FY 2011	195,191,100	41
Allocation Requested for FY 2012	12,000,000	44
Programmed Balance to Complete after FY 2012	267,058,900	
Unprogrammed balance to Complete after FY 2012	0	

PHYSICAL DATA

Earth and rock dikes	35,000 feet
Wetlands created	736 acres
Uplands created	851 acres

JUSTIFICATION: Valuable island habitat and wetlands are being lost at a perilous rate adversely impacting the health of the Chesapeake Bay. The Poplar Island project is a prime example of a continuing Chesapeake Bay Restoration and Protection type effort designed and being built to help improve the health of the Bay. Islands are preferentially selected by many fish and wildlife species as nesting/production areas. The lack of human disturbance and fewer predators make islands more productive. Poplar Island was eroding at more than 13 feet per year and would have disappeared without this project. The plan to restore the island using uncontaminated dredged material from maintenance dredging of the Baltimore Harbor and Channels navigation project was developed through the cooperative efforts of many state and Federal agencies, as well as private organizations. Total inflow of dredged material through FY 10 is 18.0 million cubic yards (MCY) and another 1.5 MCY would be placed with this FY 12 budget request. To date, 100 acres of tidal wetlands have been created with another 39 acres to be completed in FY 11 and another 35 acres with this FY 12 budget request. The Port of Baltimore is rapidly reaching a point where available placement area capacity will be insufficient to meet the port's dredging needs. The design of the projects' authorized expansion is needed to continue supporting the Chesapeake Bay Restoration and Protection (Executive Order 13508) and the navigation requirements. A disruption in the maintenance schedule that is required to keep the Port of Baltimore operational would result in significant adverse effects to both the local and national economy.

FISCAL YEAR 2011: The current amount is being applied as follows:

Engineering and design of wetland cells 1B, 1C, and 3A, stone monitoring, annual surveys and monitoring, management, and oversight.	\$ 1,530,000
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FISCAL YEAR 2012: The allocated amount will be applied as follows:

Engineering and design of wetland cells 1B and 3a, stone monitoring, annual surveys and monitoring, restoration management, and project coordination oversight.	\$ 2,600,000
Inflow of dredged material for cell development	9,400,000
Total	\$12,000,000

Division: North Atlantic

District: Baltimore

Poplar Island, Maryland

NON-FEDERAL COSTS: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below:

	Payments During Construction and Reimbursements	Annual Operation Maintenance and Replacement Costs
Requirements of Local Cooperation		
Provide lands, easements, and rights-of-way	\$ 37,000	
Pay 25 percent of the original and 35 percent of the expansion cost allocated to fish & wildlife restoration (including \$150,213,000 in credits for in-kind services and materials) and bear all costs of operation, maintenance, repair, rehabilitation and replacement of fish and wildlife facilities.	192,713,000	440,000
Total Non-Federal Costs	\$192,750,000	440,000

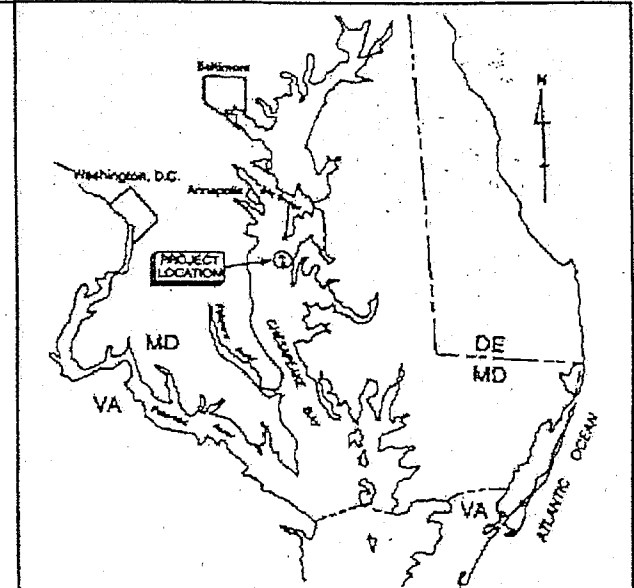
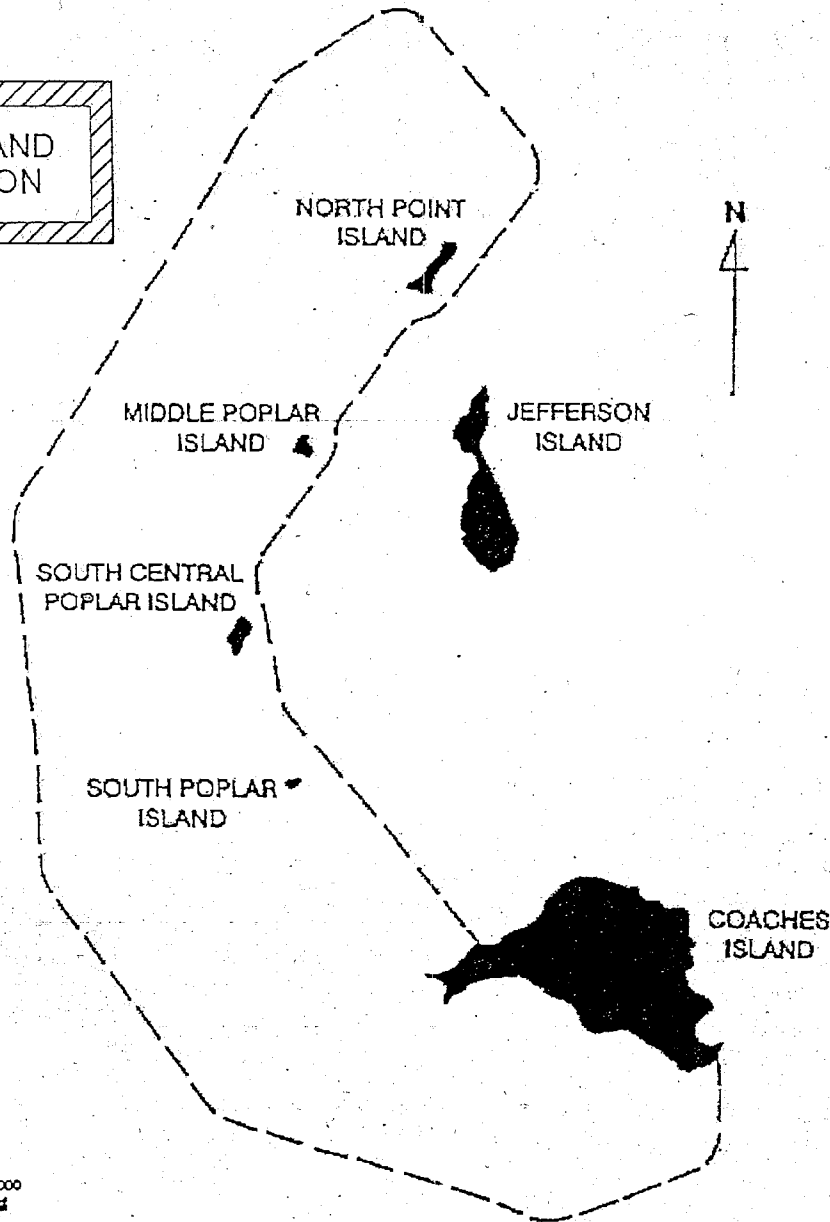
STATUS OF LOCAL COOPERATION: The State of Maryland is the non-Federal sponsor. By letter dated 16 May 1996, the State of Maryland stated its intent to be the non-Federal sponsor and participate in project cost sharing in accordance with the Water Resources Development Act of 1986. The Project Cooperation Agreement was executed in April 1997, amended 9 April 2002 to reflect in-kind services authorized by the Water Resources Development Act of 2000. To date, the State has fully complied with the local requirements on the project.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$474,250,000 is the same as the last estimate presented to Congress (2011).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The EIS was distributed for review and was finalized in February 1996 under the authority of Section 204 of the Water Resources Development Act of 1992.







OTHER INFORMATION: Planning for this project was accomplished under the authority of Section 204 of the Water Resources Development Act (WRDA) of 1992. The feasibility study was initiated in September 1994, completed in February 1996, and approved by the Assistant Secretary of the Army for Civil Works in September 1996. Section 537 of WRDA 1996 authorized construction and initial construction funds were appropriated in FY 1997. Section 3087 of WRDA 2007 authorized expansion construction at an additional cost of \$260,000,000 in accordance with the cost sharing provisions of section 204 WRDA 1992 (75-25). Section 2037 of WRDA 2007 amended Section 204 to provide that the additional work would be cost shared in accordance with Section 103(d)(7) of WRDA 1986 which provides for 65-35 cost sharing as opposed to the 75-25 cost sharing previously authorized.

POPLAR ISLAND RESTORATION



VICINITY MAP
SCALE OF MILES

LEGEND

-  1993 LANDMASS
-  AREA OF RESTORATION
-  WORK COMPLETED AS OF 30 SEPTEMBER 2010
-  WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2011
-  WORK PROPOSED WITH FUNDS RECOMMENDED FOR FY 2012
-  WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2012

POPLAR ISLAND RESTORATION, MARYLAND

1 JANUARY 2011

BALTIMORE DISTRICT NORTH ATLANTIC DIVISION

Operation and Maintenance

Key to Abbreviations:

N = Navigation

FRM = Flood Risk Management

Rec = Recreation

Hydro =Hydropower

ES = Environmental Stewardship

WS = Water Supply

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Almond Lake, NY

AUTHORIZATION: Flood Control Act of 22 June 1936, amended by Flood Control Act of 28 June 1938 and described in House Document No. 702, 77th Congress, 2nd Session.

LOCATION AND DESCRIPTION: System Code 0205- Almond Lake is located near Hornell, New York on Canacadea Creek, a tributary of the Canisteo River, which flows into the Chemung River, which flows into the Susquehanna River. The dam is an earthfill structure, 1,260 feet long rising 90 feet above the streambed, with a gated outlet conduit in the left abutment, and a concrete spillway in a natural saddle beyond the left abutment. The reservoir has a storage capacity of 14,800 acre-feet at spillway crest and has an area of 490 acres when filled to that level. The project controls a drainage area of 56 square miles or 36 percent of the watershed of the Canisteo River upstream from Hornell. An additional portion of the watershed is controlled by Arkport Dam. The project forms part of the protection for Hornell, Canisteo, and Addison and reduces flood heights at other localities on the Canisteo and Chemung rivers. Steuben County operates and maintains the Kanakadea Recreation Area under a real estate agreement.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

CONFERENCE AMOUNT FOR FY2011: TBD

ALLOCATION FOR FY 2011: \$490,000

BUDGET FOR FY2012: M: \$183,000 O: \$513,000 T: \$696,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$0 - NA

FRM: \$670,000 - Funding will provide for Flood Risk Management operation and maintenance costs for project, which includes salaries for on-site staff, utilities, supplies, critical stream gages and contracts.

Rec: \$15,000 - Funding will provide for coordination with the recreation leasee.

Hydro: \$0- NA

ES: \$11,000 - Funding will provide minimum natural resources protection and conseravtion, eco-system management and meet responsibilities for safety and compliance with natural resources laws and regulations.

WS: \$0 - NA

OTHER INFORMATION: Congressional Interest: Congressman Thomas Reed (NY-29), Senators Charles E. Schumer (NY), Kirsten E. Gillibrand (NY)

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Alvin R. Bush Dam, PA

AUTHORIZATION: Flood Control Act of 3 September 1954 and described in House Document 29, 84th Congress, 1st Session.

LOCATION AND DESCRIPTION: System Code 0205- Alvin R. Bush Dam is located on Kettle Creek approximately 8.4 miles above the mouth and about 15 miles above Renovo, Pennsylvania, in Clinton County. The earth and rockfill dam has a maximum height of 165 feet above the streambed and a top length of 1,350 feet. The outlet works include a horseshoe-shaped tunnel, 13 feet in diameter, with 3 service gates. The spillway is uncontrolled and located in rock adjacent to the right abutment. The reservoir has a storage capacity of 75,000 acre-feet at spillway crest, and the pool at this elevation extends upstream for a distance approximately 8.8 miles. The permanent pool covers 160 acres and extends for 2.2 miles. The project controls a drainage area of 226 square miles or about 92 percent of the Kettle Creek watershed. The recreation facilities are operated and maintained by the Commonwealth of Pennsylvania, Department of Conservation and Natural Resources as Kettle Creek State Park under a real estate agreement.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

CONFERENCE AMOUNT FOR FY2011: TBD

ALLOCATION FOR FY 2011: \$600,000

BUDGET FOR FY2012: M: \$213,000 O: \$603,000 T: \$816,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY_2012:

N: \$0 - NA

FRM: \$769,000 - Funding will provide for Flood Risk Management operation and maintenance costs for project, which includes salaries for on-site staff, utilities, supplies, critical stream gages and contracts.

Rec: \$18,000 - Funding will provide for coordination with the recreation leasee.

Hydro: \$0 - NA

ES: \$29,000 - Funding will provide natural resources protection and conservation, eco-system management and meet responsibilities for safety and compliance with natural resources laws and regulations.

WS: \$0 - NA

OTHER INFORMATION: Congressional Interest: Congressman Glenn Thompson (PA-5)
Senators Robert P. Casey, Jr. (PA), Patrick J. Toomey (PA)

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Arkport Dam, NY

AUTHORIZATION: Flood Control Act of 22 June 1936, amended by Flood Control Act of 28 June 1938 and described in House Document 702, 77th Congress, 2nd Session.

LOCATION AND DESCRIPTION: System Code 0205- Arkport Dam is located near Hornell, New York on the Canisteo River, a tributary of the Chemung River, which flows into the Susquehanna River. The dam is an earthfill structure, 1,200 feet long, rising 113 feet above the streambed, with a concrete spillway and an ungated outlet in the right abutment. This project is normally a dry dam; however, water is impounded after heavy rains. The project forms part of the protection for Hornell, Canisteo, and Addison, and reduces flood heights at other localities on the Canisteo and Chemung Rivers.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

CONFERENCE AMOUNT FOR FY2011: TBD

ALLOCATION FOR FY 2011: \$223,000

BUDGET FOR FY2012: M: \$82,000 O: \$272,000 T: \$354,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY_2012:

N: \$0 - NA

FRM: \$348,000 - Funding will provide for Flood Risk Management operation and maintenance costs for project, which includes salaries for on-site staff, utilities, supplies, critical stream gages and contracts.

Rec: \$0 - NA

Hydro: \$0 - NA

ES: \$6,000 - Funding will provide natural resources protection and conservation, eco-system management and meet responsibilities for safety and compliance with natural resources laws and regulations.

WS: \$0 - NA

OTHER INFORMATION: Congressional Interest: Congressman Thomas Reed (NY-29), Senators Charles E. Schumer (NY), Kirsten E. Gillibrand (NY)

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Atlantic Intracoastal Waterway – ACC Route, VA

AUTHORIZATION: River and Harbor Act of 3 March 1899 and modified by Acts of 25 July 1912, 3 March 1925, 3 July 1930, 26 June 1934 and 2 March 1945.

LOCATION AND DESCRIPTION: The Albemarle and Chesapeake Canal (ACC), on the Atlantic Intracoastal Waterway (AIWW), is a naturally protected navigation route that generally parallels the Atlantic Ocean between the Southern Branch of the Elizabeth River and the Virginia-North Carolina state line in the North Landing River, a distance of 27 miles. This project provides for a channel 12 feet deep with widths of 90 feet in land cuts and from 125 to 250 feet in rivers. Operation and maintenance of a tidal guard lock and a highway bridge is done by a facility maintenance contract. Since 1983, contractors under the Complete Sourcing Program have performed the Operation and Maintenance of this project.

RECOVERY ACT ALLOCATIONS TO DATE: \$2,111,074

CONFERENCE AMOUNT FOR FY2011: TBD

ALLOCATION FOR FY 2011: \$2,150,000

BUDGET FOR FY2012: M: \$0 **O:** \$1,742,000 **T:** \$1,742,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$1,742,000 – Funds will be used to operate a bridge, lock, and canal for commercial traffic and military fuel barges at a level of service significantly less than currently provided.

FRM: \$ N/A

Rec: \$ N/A

Hydro: \$ N/A

ES: \$ N/A

WS: \$N/A

OTHER INFORMATION: The ACC Route is of critical importance to transportation, especially to the U.S. Navy which transports over 55,000,000 gallons of jet fuel yearly from the Craney Island Fuel Depot in Portsmouth, Virginia to the Oceana Naval Air Station in Virginia Beach, Virginia. Failure to fund the project will result in the Navy being unable to meet the fuel demand of the Oceana Naval Air Station. The Navy has stated that trucking this much fuel would not be feasible on a long-term basis. In addition, commercial and recreation vessels travel the waterway in lieu of the Atlantic Ocean to preclude risking the dangerous waters off Cape Hatteras. An average of over 1,000,000 tons of commerce passes through the Great Bridge Lock yearly.

Division: North Atlantic District: Norfolk Project Name: Atlantic Intracoastal Waterway-ACC Route, VA.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Atlantic Intracoastal Waterway – Dismal Swamp Canal Route,

AUTHORIZATION: River and Harbor Act of 3 March 1899 and modified by Acts of 25 July 1912, 3 March 1925, 3 July 1930, 26 June 1934 and 2 March 1945.

LOCATION AND DESCRIPTION: The Dismal Swamp Canal (DSC), on the Atlantic Intracoastal Waterway (AIWW), is a naturally protected navigation route that generally parallels the Atlantic coast between Norfolk, VA and the Pasquotank River in NC. The canal is the oldest operating artificial waterway in the United States. The DSC was placed on the National Register of Historical Places and registered as an ASCE Landmark in 1988 and in 2004 it was included in the National Park Service's Underground Railroad Network to Freedom Program. The authorized depth of the canal is 10 feet; however, the project is currently maintained at 6 to 7 feet depths. The project also consists of one highway drawbridge and navigation lock at Deep Creek, VA, one highway drawbridge and navigation lock at South Mills, NC and three water control structures. To minimize costs, the two navigation locks and two bascule bridges are operated only four times daily.

RECOVERY ACT ALLOCATIONS TO DATE: \$348,659

CONFERENCE AMOUNT FOR FY2011: TBD

ALLOCATION FOR FY 2011: \$895,000

BUDGET FOR FY2012: M: \$0 **O:** \$1,156,000 **T:** \$1,156,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$530,000 – Funds will be used on the Dismal Swamp Canal to operate the bridges and locks, on minimum basis of 8 hours a day, 7 days a week.

FRM: \$626,000 – Funds will be used to Operate 3 water control structures along the Dismal Swamp Canal. Water control structures must be operated to prevent flooding even if locks, and bridges are closed.

Rec: \$ N/A

Hydro: \$ N/A

ES: \$ N/A

WS: \$N/A

OTHER INFORMATION: The DSC provides navigation needs for vessels to travel the protected waterways of the AIWW in lieu of traveling through the Currituck Sound. The water control structures are manned in conjunction with the locks and bridges to control the water levels in Lake Drummond as required by Public Law 93-402.

Division: North Atlantic District: Norfolk Project Name: Atlantic Intracoastal Waterway Dismal Swamp Canal Route.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Aylesworth Creek Lake, PA

AUTHORIZATION: Flood Control Act of 23 October 1962 (PL 87-874) and described in Senate Document 141, 87th Congress, 2nd Session.

LOCATION AND DESCRIPTION: System Code 0205- Aylesworth Creek Lake is located in Archbald Borough, PA on Aylesworth Creek, approximately one mile above its confluence with the Lackawanna River. The earth and rockfill dam has a maximum height above the streambed of 90 feet and a top length of 1,270 feet. An 80-foot-wide spillway, having a discharge capacity of 10,000 cubic feet per second, was cut in the south bank. The outlet conduit is uncontrolled and consists of a 490-foot-long, 36-inch-diameter vitrified clay pipe encased in reinforced concrete. An auxiliary dike was required on the north bank of Aylesworth Creek to prevent flow from the lake into the Mayfield Creek drainage basin during high lake elevations. The dike is 410 feet long and has a maximum height of 28 feet. The reservoir extends about 4,600 feet upstream and inundates 87 acres at spillway crest with an elevation of 1,150 feet above mean sea level. Lackawanna County operates and maintains Aylesworth Park under a real estate agreement.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

CONFERENCE AMOUNT FOR FY2011: TBD

ALLOCATION FOR FY 2011: \$230,000

BUDGET FOR FY2012: M: \$61,000 O: \$323,000 T: \$384,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY_2012:

N: \$0 - NA

FRM: \$354,000 - Funding will provide for Flood Risk Management operation and maintenance costs for project, which includes salaries for on-site staff, utilities, supplies, critical stream gages and contracts.

Rec: \$20,000 - Funding will provide for coordination with the recreation leasee.

Hydro: \$0 - NA

ES: \$10,000 - Funding will provide natural resources protection and conservation, eco-system management and meet responsibilities for safety and compliance with natural resources laws and regulations.

WS: \$0 - NA

OTHER INFORMATION: Congressional Interest: Congressman Thomas A. Marino (PA-10)
Senators Robert P. Casey, Jr. (PA), Patrick J. Toomey (PA)

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Ball Mountain Dam, Vermont

AUTHORIZATION: Authorized by the Flood Control Acts of 1944 and 1954. Fish passage facility was authorized by Section 872 of WRDA 1986.

LOCATION AND DESCRIPTION: Ball Mountain Dam is located along the West River, 29 miles above its junction with the Connecticut River in Brattleboro, Vermont. Dam is located about two miles north of Jamaica, Vermont. Ball Mountain Dam is operated as part of a comprehensive system of flood control projects designed to protect life and property within the Connecticut River Basin. Project consists of an earth-filled dam with rock slope protection, 915 feet long with a maximum height of 265 feet; an uncontrolled ogee weir spillway, 235 feet wide with a maximum discharge capacity of 150,000 cubic feet per second; and a 13.5-foot diameter outlet conduit with 3 control gates. The reservoir provides a flood storage capacity of 54,690 acre-feet, to control runoff from its net drainage area of 172 square miles. Construction of the dam and appurtenant structures was initiated in May 1957 and completed in November 1961. Construction of recreation facilities was initiated in June 1975 and completed in June 1977. Fish passage facility work began in June 1992 and was completed in February 1993.

RECOVERY ACT ALLOCATIONS TO DATE: \$324,575

CONFERENCE FOR FY 2011: TBD :

ALLOCATION FOR FY 2011: \$896,000

BUDGET FOR FY 2012: M: \$325,000 O: \$564,000 T: \$889,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$704,000 – Funding provides for routine essential operation and maintenance activities necessary to protect downstream life and property during flooding events, and to preserve project infrastructure. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintaining service contracts for snow and debris removal, and vegetation control along dam slopes. Also included is the required inspection of one public use bridge located on project lands. Project has prevented an estimated \$136 million in flood damages since placed in service in 1961.

Rec: \$125,000 – Funding provides for routine operation and maintenance activities necessary to support the recreational facilities at the project. The project provides recreation opportunities to an average of 61,000 visitors each year.

Hydro: N/A

ES: \$60,000 – Funding provides for routine operation and maintenance activities necessary to maintain the environmental integrity of project lands. Also included is an inventory of the vegetative cover of project lands. The project consists of 965 fee owned acres of land.

WS: N/A

OTHER INFORMATION: Ball Mountain Dam was assigned a Dam Safety Assurance Classification (DSAC) rating of II in 2005. The principle issues are seepage and stability. The rating of II is defined as Urgent (Unsafe or Potentially Unsafe). Dam Safety Construction Appropriation funds are currently being used to study seepage and stability issues at the dam.

Division: North Atlantic

District: New England

Project Name: Ball Mountain Dam, VT

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Baltimore Harbor and Channels, MD & VA

AUTHORIZATION: House Document 799, 64th Congress, 1st Session, August 8, 1917; River and Harbors Committee Document 11, 70th Congress, 1st Session, July 3, 1930; House Document 741, 79th Congress, 2nd Session, March 2, 1945; House Document 86, 85th Congress, 1st Session, July 3, 1958; House Document 181, 94th Congress, 1st Session, December 31, 1970: Water Resources Development Act of November 17, 1986.

LOCATION AND DESCRIPTION: System Code 0206- The Baltimore Harbor Federal navigation project channels are located in the Chesapeake Bay from Virginia to Maryland. The R&H Act of 1970 authorized a uniform main channel 50 feet deep, and generally 800 (in Maryland) or 1,000 (in Virginia) feet wide through the Chesapeake Bay from the Virginia Capes at the mouth of the Bay to Fort McHenry in the Port of Baltimore, a distance of 175 miles. Depths of 50, 49, and 40 feet are authorized in the 600-foot wide branch channels of Curtis Bay, Northwest Branch East Channel, and Northwest Branch West Channel, respectively. The R&H Act of 1958 authorized, in part, southern approach and connecting channels 35 feet deep and 600 feet wide leading from the Port of Baltimore to the Inland Waterway from Delaware River to Chesapeake Bay, Delaware and Maryland, Chesapeake and Delaware Canal project; Baltimore Harbor branch channels ranging from 22, 35 and 42 feet deep and 200 to 600 feet wide in Curtis Creek and Ferry Bar; and Baltimore Harbor anchorages 30 and 35 feet deep. Section 329 of WRDA 1999 directed the Secretary to straighten the Tolchester Channel S-Turn as part of project maintenance. Section 101(a)(22) of WRDA 1999 authorized a 50-foot deep turning basin; 35 and 42-foot deep anchorages; and 42 and 36 feet deep and 400 to 500-foot wide channels into Dundalk, Seagirt, and South Locust Point Marine Terminals.

RECOVERY ACT ALLOCATIONS TO DATE: \$10,792,729

CONFERENCE AMOUNT FOR FY2011: TBD

ALLOCATION FOR FY 2011: \$17,215,000

BUDGET FOR FY2012: M: \$12,711,000 O: \$1,168,000 T: \$13,879,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY_2012:

N: \$13,879,000 - Funding will provide maintenance dredging, condition surveys and DMMP of the project.

FRM: \$0 - NA

Rec: \$0 - NA

Hydro: \$0 - NA

ES: \$0 - NA

WS: \$0 - NA

OTHER INFORMATION: Congressional Interest: Congressmen Andrew P. Harris (MD-1), Dutch Ruppersberger (MD-2), John P. Sarbanes (MD-3), Donna F. Edwards (MD-4), Steny H. Hoyer (MD-5), Elijah E. Cummings (MD-7), Robert J. Wittman (VA-1), Scott Rigell (VA-2), Senators Benjamin L. Cardin (MD), Barbara A. Mikulski (MD)

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Baltimore Harbor, MD – Collection and Removal of Drift

AUTHORIZATION: River and Harbor Act of 30 June 1948.

LOCATION AND DESCRIPTION: System Code 0206- The Baltimore Harbor Collection and Removal of Drift Project is located within Baltimore City, and Baltimore and Anne Arundel Counties, Maryland. The collection and removal effort is a year round effort and consists of performing routine patrols throughout the harbor and also responding to emergency calls from Coast Guard and Navy activities, state and local government activities, and commercial business concerns for the removal of drift material deemed hazardous to the safe navigation of both commercial and recreational marine vessels.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

CONFERENCE AMOUNT FOR FY2011: TBD

ALLOCATION FOR FY 2011: \$375,000

BUDGET FOR FY2012: M: \$400,000 O: \$0 T: \$400,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY_2012:

N: \$400,000 - Funding will provide drift and debris collection and removal of the project.

FRM: \$0 - NA

Rec: \$0 - NA

Hydro: \$0 - NA

ES: \$0 - NA

WS: \$0 - NA

OTHER INFORMATION: Congressional Interest: Congressmen Andrew P. Harris (MD-1), Dutch Ruppersberger (MD-2), John P. Sarbanes (MD-3), Steny H. Hoyer (MD-5), Elijah E. Cummings (MD-7), Senators Benjamin L. Cardin (MD), Barbara A. Mikulski (MD)

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Barnegat Inlet, New Jersey

AUTHORIZATION: HD 73-19 as modified by HD 74-85, HD 79-358 and Supplemental Appropriations Act of 1985

LOCATION AND DESCRIPTION: The project is located on the Atlantic coast of New Jersey about 33 miles north of Atlantic City. The project consists of 2 jetties (north and south), a navigation channel 300-foot wide and 10-foot deep, a channel extending from the gorge in the inlet to Oyster Creek Channel to deep water in Barnegat Bay. Oyster Creek Channel is maintained at 8 feet deep and 200 feet wide. Project length is 4.5 miles.

RECOVERY ACT ALLOCATIONS TO DATE: \$350,000

CONFERENCE FOR FY 2011: TBD

ALLOCATION FOR FY 2011: \$325,000

BUDGET FOR FY 2012: M: \$350,000 O: \$0 T: \$350,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS:

NAV: Funds will be used to perform channel surveys and maintenance dredging.

FRM: \$0 N/A.

REC: \$0 N/A.

HYDRO: \$0 N/A.

ES: \$0 N/A.

WS: \$0 N/A.

OTHER INFORMATION: This project is valuable to the nation because it provides a safe, reliable, and efficient navigation channel for the most dangerous inlet on the east coast. The US Coast Guard designates this Inlet as a "Surf Station", requiring special qualifications for their rescuers due to the hazardous category of the inlet. The Coast Guard is located on the waterway and must have a reliable channel to fulfill their Homeland Security requirements and conduct critical life safety and search and rescue operations. They have conducted over 1,150 assistance/rescue cases and saved numerous lives. A safe navigation channel through the inlet is critical to the large Fishing Fleet which consists of 36 full time commercial vessels, 145 charter and recreational vessels and contributes \$30 million of economic value to the nation and over \$23 million in direct fish value (NMFS data, 2008). This Inlet must be dredged three times a year to maintain authorized depths for safe commercial and recreational use. Failure to maintain the Inlet will result in the channel being unavailable 90% of the time. Material dredged from the inlet is beneficially used by placing material in the nearshore zone in support of the adjacent Federal beachfill project.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Barre Falls Dam, Massachusetts

AUTHORIZATION: Authorized by the Flood Control Act of 1941.

LOCATION AND DESCRIPTION: Barre Falls Dam is located along the Ware River in the Town of Barre, Massachusetts, about 31.9 miles above the confluence of the Swift River. The dam is located about 13 miles northwest of Worcester, Massachusetts. Barre Falls Dam is operated as part of a comprehensive system of flood control projects designed to protect life and property within the Connecticut River Basin. The project consists of an earth-filled dam with rock slope protection, 885 feet long with a maximum height of 69 feet; 3 earth-filled dikes with rock and gravel slopes, totaling 3,215 feet in length; an uncontrolled ogee weir spillway, 60 feet wide with a maximum discharge capacity of 16,300 cubic feet per second; and a 9.7-foot diameter horseshoe-shaped outlet conduit with 2 control gates. The reservoir provides flood storage capacity of 24,000 acre-feet to control runoff from its net drainage area of 55 square miles. Construction of the dam and appurtenant structures was initiated in May 1956 and completed in May 1958.

RECOVERY ACT ALLOCATIONS TO DATE: \$726,272

CONFERENCE FOR FY 2011: TBD:

ALLOCATION FOR FY 2011: \$700,000

BUDGET FOR FY 2012: M: \$135,000 O: \$552,000 T: \$687,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$569,000 – Funding provides for routine essential operation and maintenance activities necessary to protect downstream life and property during flooding events, and to preserve project infrastructure. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintaining service contracts for snow and debris removal, and vegetation control along dam slopes. Also included is required inspections of two public use bridges located on project lands. Project has prevented an estimated \$51.3 million in flood damages since placed in service in 1958.

Rec: \$55,000 – Funding provides for routine operation and maintenance activities necessary to support the recreational facilities at the project. The project provides recreation opportunities to an average of 80,000 visitors each year.

Hydro: N/A

ES: \$63,000 – Funding provides for routine operation and maintenance activities necessary to maintain the environmental integrity of project lands. The project consists of 557 fee owned acres of land.

WS: N/A

OTHER INFORMATION: None.

Division: North Atlantic

District: New England

Project Name: Barre Falls Dam, MA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Bay Ridge and Red Hook Channels, NY

AUTHORIZATION: Rivers and Harbors Act of 1890 modified in 1894, 1896, 1905, 1909, 1910 and 1930

LOCATION AND DESCRIPTION: A channel, 40 ft. deep, of the following widths: 1,200 ft. from the Narrows to Bay Ridge Avenue, Brooklyn, thence 1,750 ft. to the junction of Bay Ridge and Red Hook Channels, and thence 1,200 ft. through Red Hook Channel to its junction with Buttermilk Channel. In the entrance to Gowanus Creek, the width narrows uniformly to 500 ft. at 28th Street, Brooklyn. Length – about 4.0 miles.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

CONFERENCE AMOUNT FOR FY2011: TBD

ALLOCATION FOR FY2011: \$0

BUDGET FOR FY2012: M: \$60,000 O: \$0 T: \$60,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY_2012:

N: \$60,000

Funds will be used for caretaker activities to monitor channel conditions, publish controlling depth reports and coordinate environmental matters with local stakeholders.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION:

Division: North Atlantic

District: New York

Project Name: Bay Ridge and Red Hook Channels, NY

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Beltzville Lake, Pennsylvania

AUTHORIZATION: This project was authorized via HD 622, 87th Congress, 2nd Session (1962)

LOCATION AND DESCRIPTION: The project is located on Pohopoco Creek, a tributary of the Lehigh River, about 4.5 miles from the confluence with the Lehigh River and 4 miles east of Lehigh, Pennsylvania. Project purposes are flood control, recreation, and water supply. The project was completed in 1971 and consists of a flood control, zoned earth-fill embankment, a controlled outlet works and an open channel emergency spillway. The controlled reservoir capacity is 68,250 acre-feet as a spillway crest, with 1,390 acre-feet of inactive storage, 41,200 acre-feet for water supply, water quality control and recreation. The Corps manages the overlook and visitor center and the lands immediately adjacent to the dam structure. Recreation Facilities: Public-use areas include boat launching, picnicking, bathing beach and sanitary facilities provided by the Corps of Engineers and completed during FY 1972. Recreation available includes swimming, boating, fishing, hunting, and hiking. The Commonwealth of Pennsylvania manages, under leases, the recreation facilities constructed by the Corps and the remainder of the project lands. The Corps manages the overlook and visitor center and the lands immediately adjacent to the dam structure.

RECOVERY ACT ALLOCATIONS TO DATE: \$411,000

CONFERENCE FOR FY 2011: TBD

ALLOCATION FOR FY 2011: \$1,425,000

BUDGET FOR FY 2012: M: \$50,000 O: \$1,395,000 T: \$1,473,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS:

NAV: \$0 N/A

FRM: \$1,445,000 will be used for normal operations and maintenance of the dam, including project buildings, grounds and equipment; continuing evaluation data gathering, dam safety efforts real estate, and actions identified in the Interim Risk Reduction Measures Plan (IRRMP)

REC: \$0 N/A.

HYDRO: \$0 N/A.

ES: \$28,000 will be used to accomplish basic and essential stewardship functions at the project. This includes the maintenance and monitoring of sustainable land, improving fee owned land from degraded to transitioning status, prevention of the introduction of invasive plant species to numerous tracts of land, and continuation of good stewardship practices. All funding will be expended at the project level

WS: \$0 N/A.

OTHER INFORMATION: A Screening for Dam Safety Portfolio Risk Assessment (SPRA) was conducted in 2009 resulting in a Dam Safety Action Classification (DSAC) rating of III for this project. As a result of the DSAC III rating, an Interim Risk Reduction Measures Plan (IRRMP) is in preparation.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Birch Hill Dam, Massachusetts

AUTHORIZATION: Authorized by the Flood Control Acts of 1936 and 1938.

LOCATION AND DESCRIPTION: Birch Hill Dam is located along the Millers River, 27.3 miles above its junction with the Connecticut River. The dam lies about 1.3 miles east of South Royalston, Massachusetts and 7.5 miles northwest of Gardner, Massachusetts. Birch Hill Dam is operated as part of a comprehensive system of flood control projects designed to protect life and property within the Connecticut River Basin. The project consists of an earth-filled dam with an impervious core and rock slope protection, 1,400 feet long with a maximum height of 56 feet; an uncontrolled ogee weir spillway, a total of 1,190 feet wide with a maximum discharge capacity of 56,600 cubic feet per second; and 4 rectangular outlet conduits with 8 control gates. The reservoir provides a flood storage capacity of 49,900 acre-feet, to control runoff from its net drainage area of 175 square miles. Construction of the dam and appurtenant structures was initiated in June 1940 and completed in February 1942.

RECOVERY ACT ALLOCATIONS TO DATE: \$430,155

CONFERENCE FOR FY 2011: TBD

ALLOCATION FOR FY 2011: \$792,000

BUDGET FOR FY 2012: M: \$137,000 O: \$702,000 T: \$839,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$713,000 – Funding provides for essential operation and maintenance activities necessary to protect downstream life and property during flooding events, and to preserve project infrastructure. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintaining service contracts for snow and debris removal, and vegetation control along dam slopes. Also included is required five year cycle Periodic Inspection of the project. Project has prevented an estimated \$75.3 million in flood damages since placed in service in 1942.

Rec: \$50,000 – Funding provides for routine operation and maintenance activities necessary to support the recreational facilities at the project. The project provides recreation opportunities to an average of 341,000 visitors each year.

Hydro: N/A

ES: \$76,000 – Funding provides for routine operation and maintenance activities necessary to maintain the environmental integrity of project lands. The project consists of 4,394 fee owned acres of land.

WS: N/A

OTHER INFORMATION: Birch Hill Dam and the Winchenden Dike portion of the project were assigned Dam Safety Assurance Classification (DSAC) ratings of III in September and November 2009 (respectively). The principle issues at the dam are seepage and seismic, the issue at the dike is seepage. The rating of III is defined as High Priority (Conditionally Unsafe).

Division: North Atlantic

District: New England

Project Name: Birch Hill Dam, MA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Black Rock Lake, Connecticut

AUTHORIZATION: Authorized by the Flood Control Act of 1960.

LOCATION AND DESCRIPTION: Black Rock Lake is located on Branch Brook, about 2 miles upstream from its confluence with the Naugatuck River. The project is located in Thomaston and Watertown, Connecticut. Black Rock Lake is part of a comprehensive system of flood control projects designed to protect life and property within the Housatonic River Basin. The project consists of an earth-filled dam, 933 feet long with a maximum height of 154 feet; an uncontrolled chute spillway, 140 feet wide with a maximum discharge capacity of 33,500 cubic feet per second; and a rectangular outlet conduit with 2 control gates. The reservoir provides a flood storage capacity of 8,755 acre-feet to control runoff from its net drainage area of 20.4 square miles. Construction of the dam and appurtenant structures was initiated in July 1967 and completed in July 1971.

RECOVERY ACT ALLOCATIONS TO DATE: \$400,725

CONFERENCE FOR FY 2011: TBD

ALLOCATION FOR FY 2011: \$537,000

BUDGET FOR FY 2012: M: \$94,000 O: \$488,000 T: \$582,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$491,000 – Funding provides for routine essential operation and maintenance activities necessary to protect downstream life and property during flooding events, and to preserve project infrastructure. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintaining service contracts for snow and debris removal, and vegetation control along dam slopes. Project has prevented an estimated \$113.1 million in flood damages since placed in service in 1971.

Rec: \$49,000 – Funding provides for routine operation and maintenance activities necessary to support the recreational facilities at the project. The project provides recreation opportunities to an average of 115,000 visitors each year.

Hydro: N/A

ES: \$42,000 – Funding provides for routine operation and maintenance activities necessary to maintain the environmental integrity of project lands. The project consists of 173 fee owned acres of land.

WS: N/A

OTHER INFORMATION: Black Rock Dam was assigned a Dam Safety Assurance Classification (DSAC) rating of III in March 2009. The principle issue is seepage. The rating of III is defined as High Priority (Conditionally Unsafe).

Division: North Atlantic

District: New England

Project Name: Black Rock Lake, CT

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Blackwater Dam, New Hampshire

AUTHORIZATION: Authorized by the Flood Control Acts of 1936 and 1938.

LOCATION AND DESCRIPTION: Blackwater Dam is located along the Blackwater River, about 8.2 miles upstream from its junction with the Contoocook River. The project is located in the Towns of Webster and Salisbury, New Hampshire. Blackwater Dam is operated as part of a comprehensive system of flood control projects designed to protect life and property within the Merrimack River Basin. The project consists of an earth-filled dam with rock slope protection, 1,650 feet long with a maximum height of 28 feet; an uncontrolled ogee weir spillway, 240 feet wide with a maximum discharge capacity of 32,800 cubic feet per second; and 4 rectangular outlet conduits with 4 control gates, one of which is plugged. The reservoir provides a flood storage capacity of 46,000 acre-feet to control runoff from its net drainage area of 128 square miles. Construction of the dam and appurtenant structures was initiated in May 1940 and completed in November 1941.

RECOVERY ACT ALLOCATIONS TO DATE: \$118,985

CONFERENCE FOR FY 2011: TBD

ALLOCATION FOR FY 2011: \$716,000

BUDGET FOR FY 2012: M: \$132,000 O: \$512,000 T: \$644,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$505,000 – Funding provides for routine essential operation and maintenance activities necessary to protect downstream life and property during flooding events, and to preserve project infrastructure. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintaining service contracts for snow and debris removal, and vegetation control along dam slopes. Project has prevented an estimated \$77.1 million in flood damages since placed in service in 1941.

Rec: \$57,000 – Funding provides for routine operation and maintenance activities necessary to support the recreational facilities at the project. The project provides recreation opportunities to an average of 24,000 visitors each year.

Hydro: N/A

ES: \$82,000 – Funding provides for routine operation and maintenance activities necessary to maintain the environmental integrity of project lands. The project consists of 3,580 fee owned acres of land.

WS: N/A

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Blue Marsh Lake, Pennsylvania

AUTHORIZATION: This project was authorized via HD 522, 87th Congress, 2nd Session (1962)

LOCATION AND DESCRIPTION: The project is located on Tulpehocken Creek, a tributary of the Schuylkill River, about 1.5 miles upstream from its confluence with Plum Creek, and about 6 miles northwest of Reading, Pennsylvania. Project purposes are flood control, water supply, and recreation. The project was completed in 1980 and consists of a flood control earth and rock fill dam, 1775 ft in length rising 98 ft above the creek bed, with a spillway approximately 1,500 feet south of the dam. The project has capacity of 50,010 acre-feet at spillway crest with 3,000 acre-feet of inactive storage, 14,620 acre-feet for water supply and recreation and 32,390 acre feet for flood control. The facility includes a low level outlet works excavated into the rock near the right abutment of the dam, the emergency spillway, three high level saddle dikes located in low points in the reservoir rim, and a levee and interior drainage system to protect the settlement of Bernville, northwest of the Blue Marsh Dam.

RECOVERY ACT ALLOCATIONS TO DATE: \$783,950

CONFERENCE FOR FY 2011: TBD

ALLOCATION FOR FY 2011: \$2,817,000

BUDGET FOR FY 2012: M: \$233,000 O: \$2,658,000 T: \$2,891,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS:

NAV: N/A

FRM: \$925,000 will be used for routine operations & maintenance which includes the operation buildings, the dam and related structures, grounds & equipment, management of public-use areas such as access roads, parking lots, picnic areas and an overlook area. Other specific work includes lead paint remediation, real estate (NAB), continuing evaluation gathering, dam safety, water-control and water-quality analysis. Other specific work includes continuing evaluation gathering, dam safety requirements, real estate, and some actions identified in the Interim Risk Reduction Measures Plan (IRRMP).

REC: \$1,635,000 will be used for operation and maintenance of public use activities including picnicking, boating (launching ramps), fishing, hunting, sightseeing, swimming (bathing beach with concession), hiking and various winter sports which are provided and operated by the Corps of Engineers. The Corps leases approximately 3,000 acres to the Commonwealth of PA for game management while the Pennsylvania Fish & Boat Commission stocks the lake and, along with the Corps, enforces boating regulations.

HYDRO: \$0 N/A.

ES: \$331,000 will be used to accomplish basic and essential stewardship functions at the project. This includes the maintenance and monitoring of 250 acres of sustainable land, improving 64 acres of fee owned land from degraded to transitioning status, prevention of the introduction of invasive plant species to numerous tracts of land, improvement of multiple wildlife plots and continuation of good stewardship practices.

WS: \$0 N/A.

OTHER INFORMATION: A Screening for Dam Safety Portfolio Risk Assessment (SPRA) was conducted in 2009 resulting in a Dam Safety Action Classification (DSAC) rating of III for the Blue Marsh project and a DSAC III rating for the Bernville Protective Works. As a result of the DSAC III ratings, an IRRMP is being prepared.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Buffumville Lake, Massachusetts

AUTHORIZATION: Authorized by the Flood Control Act of 1941.

LOCATION AND DESCRIPTION: Buffumville Lake is located along the Little River, about 1.3 miles upstream from its confluence with the French River and about 8 miles northeast of Southbridge, Massachusetts. The project is located in the Towns of Oxford and Charlton, Massachusetts. Buffumville Lake is part of a comprehensive system of flood control projects designed to protect life and property within the Thames River Basin. The project consists of an earth-filled dam with stone slope protection, 3,255 feet long with a maximum height of 66 feet; an earth-filled dike with stone slope protection, a total length of 610 feet and a maximum height of 15 feet; an uncontrolled ogee weir spillway, 220 feet wide with a maximum discharge capacity of 29,800 cubic feet per second; and 3 rectangular outlet conduits with 1 control gate. The reservoir provides a flood storage capacity of 12,720 acre-feet to control runoff from its net drainage area of 26.5 square miles. Construction of the dam and appurtenant structures was initiated in September 1956 and completed in June 1958.

RECOVERY ACT ALLOCATIONS TO DATE: \$203,543

CONFERENCE FOR FY 2011: TBD

ALLOCATION FOR FY 2011: \$657,000

BUDGET FOR FY 2012: M: \$162,000 O: \$447,000 T: \$609,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$500,000 – Funding provides for routine essential operation and maintenance activities necessary to protect downstream life and property during flooding events, and to preserve project infrastructure. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintaining service contracts for snow and debris removal, and vegetation control along dam slopes. Project has prevented an estimated \$105.9 million in flood damages since placed in service in 1958.

Rec: \$69,000 – Funding provides for routine operation and maintenance activities necessary to support the recreational facilities at the project. The project provides recreation opportunities to an average of 138,000 visitors each year.

Hydro: N/A

ES: \$40,000 – Funding provides for routine operation and maintenance activities necessary to maintain the environmental integrity of project lands. Also included is boundary monument recertification and resolution of real estate encroachment issues. The project consists of 480 fee owned acres of land.

WS: N/A

OTHER INFORMATION: None.

Division: North Atlantic

District: New England

Project Name: Buffumville Lake, MA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Buttermilk Channel, NY

AUTHORIZATION: Rivers and Harbor Acts in 1902, modified in 1935 & 1962

LOCATION AND DESCRIPTION: The project is located in NY Harbor and provides for a channel 1000 feet wide; 500 feet wide and 40 feet deep along the easterly side and 500 feet wide and 35 feet deep along the westerly side with suitable widening at the junctions with the East River and Anchorage Channels; additional width of 2,100 feet to a depth of 35 feet at the junction with Anchorage and Red Hook Channels. The total length of the project is approximately 2.3 miles.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

CONFERENCE AMOUNT FOR FY2011: TBD

ALLOCATION FOR FY 2011: \$8,600,000

BUDGET FOR FY 2012: M: \$60,000 O: \$0 T: \$60,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$60,000

Closeout FY2011 maintenance dredging contract. Provide stakeholders updated information on condition of the federal channel.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION:

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Cape Cod Canal, Massachusetts

AUTHORIZATION: Rivers and Harbors Acts of 1927, 1935, 1945 and 1958; and amended by the Public Works Administration Program in 1933 and 1935, the Permanent Appropriations Repeal Act of 1934, and the Emergency Relief Program in 1935. The canal was purchased from the Boston, Cape Cod and New York Canal Company in accordance with a contract dated 29 July 1921.

LOCATION AND DESCRIPTION: The Cape Cod Canal is located about 50 miles south of Boston, Massachusetts and extends across a narrow neck of land joining Cape Cod to the mainland. The project provides for a channel 32 feet deep and 540 to 800 feet wide extending about 17.5 miles from deep water in Buzzards Bay to deep water in Cape Cod Bay. The project also includes navigation improvements in East Boat Basin and Onset Bay, and construction of two high-level highway bridges and a vertical lift railroad bridge, which cross the canal. Major rehabilitation of the Bourne and Sagamore Highway Bridges was completed in 1965 and 1980 respectively. Major rehabilitation of the vertical-lift railroad bridge was completed in 2004.

RECOVERY ACT ALLOCATIONS TO DATE: \$4,703,519

CONFERENCE AMOUNT FOR FY 2011: TBD

ALLOCATION FOR FY 2011: \$14,174,000

BUDGET FOR FY 2012: M: \$10,596,000 O: \$6,861,000 T: \$17,457,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$14,921,000 – Funding provides for routine essential operation and maintenance of the Cape Cod Canal Project, including the canal, two highway bridges and vertical-lift Railroad Bridge. These funds are also being used to perform required inspection of the Bourne Highway bridge and the vertical lift Railroad bridge (730,000); completing lead abatement and painting of the Sagamore Highway Bridge (\$6,600,000); and replacement of an expansion joint on the Bourne Highway Bridge (300,000).

FRM: N/A

Rec: \$2,506,000 – Funding provides for normal operation and maintenance of recreation facilities at the Cape Cod Canal. The project provides recreation opportunities to and average of 3,055,000 visitors each year.

Hydro: N/A

ES: \$30,000 – Funding provides for monitoring of Piping Plover nesting areas on project lands. The project consists of 1,655 fee owned acres of land.

WS: N/A

OTHER INFORMATION: The Bourne and Sagamore Highway Bridges are the only two vehicular accesses from mainland Massachusetts to Cape Cod and are crossed by nearly 40 million vehicles annually. In 2008, waterborne commerce totaled 8.6 million tons.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Charles River Natural Valley Storage Areas, Massachusetts

AUTHORIZATION: Authorized by the Water Resources Development Act of 1974.

LOCATION AND DESCRIPTION: The Charles River is located in eastern Massachusetts and extends inland about 80 miles from Boston Harbor southwesterly towards the Massachusetts and Rhode Island state line. The watershed covers approximately 307 square miles and project lands are located in 16 communities. The project provides for Federal acquisition and perpetual protection of 17 crucial natural valley storage areas totaling 8,115 acres in the middle and upper portion of the watershed. These areas provide natural flood storage to minimize the potential of flood losses within the watershed. Land acquisition began in May 1977 and was completed in September 1983.

RECOVERY ACT ALLOCATIONS TO DATE: \$591,752

CONFERENCE FOR FY 2011: TBD

ALLOCATION FOR FY 2011: \$329,000

BUDGET FOR FY 2012: M: \$0,000 O: \$300,000 T: \$300,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$139,000 – Funding provides for routine essential operation and maintenance activities necessary to project the 17 natural valley storage areas from encroachment. Activities include data collection, environmental compliance, boundary surveys and real estate inspections. Project has prevented an estimated \$3.2 million in flood damages since complete in 1983.

Rec: \$65,000 – Funding provides for routine operation and maintenance activities necessary to support the recreational facilities at the project. The project provides recreation opportunities to an average of 183,000 visitors per year.

Hydro: N/A

ES: \$96,000 – Funding provides for routine operation and maintenance activities necessary to maintain the environmental integrity of the project lands. The project consists of 3,221 fee owned acres of land.

WS: N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Chincoteague Inlet, VA

AUTHORIZATION: Section 107 of the River and Harbor Act of 14 July 1960

LOCATION AND DESCRIPTION: Chincoteague Inlet is located on the Eastern Shore of Virginia in Accomack County. It is the largest commercial port on the Eastern Shore and supports over 3,000 vessels a year. The project supports all types of commercial fishing. Failure to maintain the channel would result in direct economic losses to commercial users as well as local businesses. The project also supports the U.S. Coast Guard and NASA.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

CONFERENCE AMOUNT FOR FY2011: TBD

ALLOCATION FOR FY 2011: \$500,000

BUDGET FOR FY2012: M: \$600,000 **O:** \$0 **T:** \$600,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$600,000 – Funds will be used for USACE DREDGE CURRITUCK to remove only critical shoaling to provide minimal availability for users. If channel is not maintained, damage and potential loss of life situations will endanger commercial fishing vessels, the U.S. Coast Guard search and rescue vessels and NASA launch support vessels.

FRM: \$ N/A

Rec: \$ N/A

Hydro: \$ N/A

ES: \$ N/A

WS: \$N/A

OTHER INFORMATION: The project provides the primary access from the Atlantic Ocean to the critical harbor of refuge at Chincoteague and other Federal navigation projects in the area. U.S. Coast Guard Station and USCG Group Eastern Shore are located on Chincoteague Inlet. NASA Goddard Space Flight Center, Mid-Atlantic Regional Spaceport, and the U.S. Navy use the project for training operations, range control, payload recovery, and oceanographic missions. \$8.2 million of annual income depend upon this project (Accomack Co.)

Division: North Atlantic

District: Norfolk

Project Name: Chincoteague Inlet, VA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Cold Spring Inlet, New Jersey

AUTHORIZATION: HD 59-338 as modified by HD 77-262

LOCATION AND DESCRIPTION: Cold Spring Inlet connects the New Jersey Intracoastal Waterway with the Atlantic Ocean at Cape May, NJ. The project provides for 2 jetties; an entrance channel 25 feet deep and 400 feet wide from the ocean to 500 feet harbor-ward of the end of the jetties; and a channel 20 feet deep and 300 feet wide from the entrance channel to deep water in Cape May Harbor. Project length is about 2.25 miles.

RECOVERY ACT ALLOCATIONS TO DATE: \$640,000

EMERGENCY SUPPLEMENTAL: \$250,000

CONFERENCE FOR FY 2011: TBD

ALLOCATION FOR FY 2011: \$350,000

BUDGET FOR FY 2012: M: \$360,000 O: \$0 T: \$360,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS:

NAV: Funds will be used to perform channel exams and maintenance dredging.

FRM: \$0 N/A.

REC: \$0 N/A.

HYDRO: \$0 N/A.

ES: \$0 N/A.

WS: \$0 N/A.

OTHER INFORMATION: : This project is valuable to the nation because it provides a safe, reliable, and efficient navigation channel for the largest Fishery Landing in New Jersey (the 13th largest in the U.S.), contributing \$75 million in direct fish value (NMFS, 2009) and over \$300 million of economic value to the nation each year. The Inlet also serves the only U.S. Coast Guard enlistee training base in the U.S. The Coast Guard Station Cape May is also located on the waterway and must have a reliable channel to fulfill their Homeland Security requirements and conduct critical life-safety, search and rescue operations. They conducted 1,155 assistance/rescue cases and saved 4 lives (USCG data). Keeping the Inlet clear of obstructions and safe for navigating within dangerous currents is critical to the mission of the Coast Guard cutters and other vessels that use the inlet. Severe shoaling in the entrance channel requires dredging at least twice a year to maintain authorized depths. Material dredged from the inlet is beneficially used by placing material in the nearshore zone in support of the adjacent Federal beachfill project.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Colebrook River Lake, Connecticut

AUTHORIZATION: Authorized by the Flood Control Act of 1960.

LOCATION AND DESCRIPTION: Colebrook River Lake is located on the West Branch of the Farmington River, about 8.1 miles above its junction with the main stem of the Farmington River. The project is located in Colebrook, Connecticut and the pool extends into Sandisfield and Tolland, Massachusetts. Colebrook River Lake is part of a comprehensive system of flood control projects designed to protect life and property within the Connecticut River Basin. The project consists of an earth-filled dam with rock slope protection, 1,300 feet long with a maximum height of 223 feet; an earth-filled dike 1,240 feet long with a maximum height of 54 feet; an uncontrolled ogee weir spillway, 205 feet wide with a maximum discharge capacity of 96,000 cubic feet per second; and a 10-foot diameter outlet tunnel with 3 control gates. The reservoir provides a flood storage capacity of 97,700 acre-feet to control runoff from its net drainage area of 118 square miles. Construction of the dam and appurtenant structures was initiated in May 1965 and completed in June 1969. Recreational facilities were initiated in August 1969 and completed in June 1970.

RECOVERY ACT ALLOCATIONS TO DATE: \$269,598

CONFERENCE FOR FY 2011: TBD

ALLOCATION FOR FY 2011: \$689,000

BUDGET FOR FY 2012: M: \$91,000 O: \$550,000 T: \$641,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$511,000 – Funding provides for routine essential operation and maintenance activities necessary to protect downstream life and property during flooding events, and to preserve project infrastructure. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintaining service contracts for snow and debris removal, and vegetation control along dam slopes. Project has prevented an estimated \$64.8 million in flood damages since placed in service in 1969.

Rec: \$59,000 – Funding provides for routine operation and maintenance activities necessary to support the recreational facilities at the project. The project provides recreation opportunities to an average of 128,000 visitors each year.

Hydro: N/A

ES: \$67,000 – Funding provides for routine operation and maintenance activities necessary to maintain the environmental integrity of project lands. The project consists of 388 fee owned acres of land.

WS: \$4,000 – Funding provides for routine operation and maintenance activities relating to water supply at the project.

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Conant Brook Dam, Massachusetts

AUTHORIZATION: Authorized by the Flood Control Act of 1960.

LOCATION AND DESCRIPTION: Conant Brook Dam is located along Conant Brook, a tributary of Chicopee Brook, about 2 miles southeast of the Town of Monson, Massachusetts, in Hampden County. Conant Brook Dam is operated as part of a comprehensive system of flood control projects designed to protect life and property within the Connecticut River Basin. The project consists of an earth-filled dam with rock slope protection, 1,050 feet long with a maximum height of 85 feet; an earth-filled dike 980 feet in length; an uncontrolled ogee weir spillway, 100 feet wide with a maximum discharge capacity of 10,750 cubic feet per second; and a 36-inch diameter outlet conduit. The reservoir provides a flood storage capacity of 3,740 acre-feet, to control runoff from its net drainage area of 7.8 square miles. Construction of the dam and appurtenant structures was initiated in June 1964 and completed in December 1966.

RECOVERY ACT ALLOCATIONS TO DATE: \$23,132

CONFERENCE FOR FY 2011: TBD

ALLOCATION FOR FY 2011: \$403,000

BUDGET FOR FY 2012: M: \$81,000 O: \$197,000 T: \$278,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$212,000 – Funding provides for routine essential operation and maintenance activities necessary to protect downstream life and property during flooding events, and to preserve project infrastructure. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintaining service contracts for snow and debris removal, and vegetation control along dam slopes. Project has prevented an estimated \$3 million in flood damages since placed in service in 1966.

Rec: \$49,000 – Funding provides for routine operation and maintenance activities necessary to support the recreational facilities at the project. The project provides recreation opportunities to an average of 30,000 visitors each year.

Hydro: N/A

ES: \$17,000 – Funding provides for routine operation and maintenance activities necessary to maintain the environmental integrity of project lands. The project consists of 469 fee owned acres of land.

WS: N/A

OTHER INFORMATION: Conant Brook Dam was assigned a Dam Safety Assurance Classification (DSAC) rating of III in September 2009. The principle issue is seepage. The rating of III is defined as High Priority (Conditionally Unsafe).

Division: North Atlantic

District: New England

Project Name: Conant Brook Dam, MA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Cowanesque Lake, PA

AUTHORIZATION: Flood Control Act of 3 July 1958 (PL 85-500), 85th Congress and described in House Document 394, 84th Congress, 2nd Session.

LOCATION AND DESCRIPTION: System Code 0205- Cowanesque Lake is located in Tioga County, Pennsylvania, on the Cowanesque River approximately 2 miles upstream of the confluence with the Tioga River at Lawrenceville, PA. The embankment consists of earth and rockfill, 3,100 feet in length, rising 151 feet above the streambed, with a 400-foot long spillway in the right abutment. The outlet works consist of an excavated approach channel, a combined intake and gate structure, a 15-foot diameter horseshoe tunnel, and a concrete outlet structure with a stilling basin. A conservation lake is maintained at elevation 1080 NGVD having a surface area of 1090 acres, and a length of 4.2 miles. Seventy-nine percent of the conservation storage space is allocated for water supply storage owned by the Susquehanna River Basin Commission. The Corps operates and maintains three major recreation areas on Cowanesque Lake.

RECOVERY ACT ALLOCATIONS TO DATE: \$399,948

CONFERENCE AMOUNT FOR FY2011: TBD

ALLOCATION FOR FY 2011: \$1,772,000

BUDGET FOR FY2012: M: \$393,000 **O:** \$2,053,000 **T:** \$2,446,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$0 - NA

FRM: \$1,600,000 - Funding will provide for Flood Risk Management operation and maintenance costs for project, which includes salaries for on-site staff, utilities, supplies, critical stream gages and contracts.

Rec: \$694,000 - Funding will provide for operation and maintenance of recreation facilities and services, which includes salaries for permanent and seasonal staff, utilities, supplies and contracts.

Hydro: \$0 - NA

ES: \$118,000 - Funding will provide minimum natural resources protection and conservation, eco-system management and meet responsibilities for safety and compliance with natural resources laws and regulations.

WS: \$34,000 - Funding will provide for water coordination.

OTHER INFORMATION: Congressional Interest: Congressman Glenn Thompson (PA-5), Senators Robert P. Casey, Jr. (PA), Patrick J. Toomey (PA)

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Cumberland, MD & Ridgeley, WV

AUTHORIZATION: Flood Control Act of 22 June 1936 and the Flood Control Act of 24 July 1946 described in House Document No. 101, 73rd Congress, 1st Session.

LOCATION AND DESCRIPTION: System Code 0207- The project is located in Cumberland, Maryland and Ridgeley, West Virginia. The protective works consist of about 1.6 miles of channel improvements along Wills Creek; 1.7 miles of channel improvement along the North Branch Potomac River; 3 pumping stations; 8 pressure conduits; an industrial water-supply dam; reconstruction of a railroad bridge; track relocations; and reconstruction of piers and abutments for three highway bridges. The project protects Cumberland, Maryland and Ridgeley, West Virginia, against flood discharges 28 percent greater than the maximum flood of record (March 1936). Federal maintenance is provided for the channels of Wills Creek and the North Branch Potomac River. Operation and maintenance of the Federal project is performed by the City Engineering Department of Cumberland under contract with the Baltimore District Corps of Engineers.

RECOVERY ACT ALLOCATIONS TO DATE: \$0
CONFERENCE AMOUNT FOR FY2011: TBD
ALLOCATION FOR FY 2011: \$188,000
BUDGET FOR FY2012: M: \$0 O: \$150,000 T: \$150,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY_2012:

N: \$0 - NA

FRM: \$150,000 - Funding will provide for Flood Risk Management operation cost for project, which includes salaries, critical stream gages and contracts.

Rec: \$0 - NA

Hydro: \$0 - NA

ES: \$0 - NA

WS: \$0 - NA

OTHER INFORMATION: Congressional Interest: Congressmen Roscoe G. Bartlett (MD-6), David McKinley (WV-1), Senators Barbara A. Mikulski (MD), Benjamin L. Cardin (MD), Joseph Manchin (WV), John D. Rockefeller IV (WV)

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Curwensville Lake, PA

AUTHORIZATION: Flood Control Act of 3 September 1954 and described in House Document 29, 84th Congress, 1st Session.

LOCATION AND DESCRIPTION: System Code 0205- Curwensville Dam is located on the West Branch Susquehanna River about 0.6 miles upstream from Curwensville, Pennsylvania. The dam is an earthfill structure 2,850 feet long, rising 131 feet above the streambed, with a spillway and a gate-controlled outlet. The reservoir has a storage capacity of 124,200 acre-feet at spillway crest and extends 14 miles upstream when filled to that level. The Commonwealth of Pennsylvania furnished assurances that it would coordinate the operation of its George B. Stevenson Dam with the operation of Curwensville Dam, Alvin R. Bush Dam, and Foster Joseph Sayers Dam, in order to secure optimum flood control benefits through operation as a system. Fifty-seven percent of the conservation storage space is allocated for water supply storage, owned by the Susquehanna River Basin Commission. Clearfield County operates and maintains the recreation area under a real estate agreement.

RECOVERY ACT ALLOCATIONS TO DATE: \$557,938

CONFERENCE AMOUNT FOR FY2011: TBD

ALLOCATION FOR FY 2011: \$687,000

BUDGET FOR FY2012: M: \$195,000 O: \$698,000 T: \$893,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$0 - NA

FRM: \$789,000 - Funding will provide for Flood Risk Management operation and maintenance costs for project, which includes salaries for on-site staff, utilities, supplies, critical stream gages and contracts.

Rec: \$44,000 - Funding will provide for coordination with the recreation leasee.

Hydro: \$0 - NA

ES: \$43,000 - Funding will provide natural resources protection and conseravtion, eco-system management and meet responsibilities for safety and compliance with natural resources laws and regulations.

WS: \$17,000 - Funding will provide for water coordination.

OTHER INFORMATION: Congressional Interest: Congressman Glenn Thompson (PA-5), Senators Robert P. Casey, Jr. (PA), Patrick J. Toomey (PA)

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Delaware River in the Vicinity of Camden, New Jersey

AUTHORIZATION: The existing project, which is a modification to the Delaware River from Philadelphia to the Sea project, was adopted as House Document No. 63-1120 in 1919 and modified by House Document No. 70-111 in 1930 and House Document No. 77-353 in 1945. Section (3a) of the Water Resources Development Act of 1988 authorized the modification of the existing Delaware River in the Vicinity of Camden, New Jersey project. The project document referenced in the authorizing legislation is House Document 100-167 (Delaware River, Philadelphia to Wilmington, Pennsylvania and Delaware). Federal participation in the latest modification work (to 40') within Beckett Street Terminal was accomplished as a result of the project sponsor furnishing assurances of compliance with Section 221 of the Flood Control Act of 1970 (Public Law 91-611) and, entering into a Local Cooperation Agreement as per the Water Resources Development Act of 1986 (PL 99-662).

LOCATION AND DESCRIPTION: This project is located adjacent to the east channel edge of the Delaware River, Philadelphia to Sea project at Camden Marine and Beckett Street Terminals in Camden, New Jersey

RECOVERY ACT ALLOCATIONS TO DATE: \$0
CONFERENCE FOR FY 2011: TBD
ALLOCATION FOR FY 2011: \$15,000
BUDGET FOR FY 2012: M: \$0 O: \$15,000 T: \$15,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS:

NAV: Funds will be used to monitor the project.

FRM: \$0 N/A.

REC: \$0 N/A.

HYDRO: \$0 N/A.

ES: \$0 N/A.

WS: \$0 N/A.

OTHER INFORMATION: The existing project, for which there is Federal interest and local support, provides a 40-foot deep, irregular but generally trapezoidal shaped access channel to Berths #3 and #4 at Beckett Street Terminal. This channel provides access from the 40' x 400' wide east channel of the Delaware River "Philadelphia to the Sea" project. The approach channel has lengths of 4,560 feet along the east edge of the Delaware River Shipping Channel and 1,630 feet along the west edge of the berthing area at the Beckett Street Terminal. The width of the channel varies from 1410 feet to 1660 feet. The approach angle is 45 degrees from the south and the departure angle is 45 degrees to the north.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Delaware River Philadelphia to the Sea, NJ, PA & DE

AUTHORIZATION: HD 61-733 and modified by HD 71-304, River and Harbors Committee DOC 73-5, SD 75-159, HD 76-580, HD 77-340, HD 83-358 and HD 85-185

LOCATION AND DESCRIPTION: The Delaware River Philadelphia to the Sea Federal navigation channel runs from deep water in the bay to Philadelphia Harbor. Annual maintenance dredging is performed to provide the authorized depth.

RECOVERY ACT ALLOCATIONS TO DATE: \$2,851,943

CONFERENCE FOR FY 2011: TBD

ALLOCATION FOR FY 2011: \$20,020,000

BUDGET FOR FY 2012: M: \$19,410,000 O: \$2,000,000 T: \$21,410,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS:

NAV: \$21,410,000. Funds will be used for condition surveys, annual contract maintenance dredging, maintenance dredging with Dredge McFarland (training days), instrumentation reading, disposal area maintenance & construction, environmental monitoring, groundwater monitoring, leased equipment contracts, and real estate coordination.

FRM: \$0 N/A.

REC: \$0 N/A.

HYDRO: \$0 N/A.

ES: \$0 N/A.

WS: \$0 N/A.

OTHER INFORMATION: This is a 40-foot deep draft project, provides safe navigation for large vessels that provide access to the fifth largest port complex in the United States, handling over 120 million tons of high value cargo per year to the nation and \$3.5 billion into the regional economy. The port area is home to the largest petrochemical complex on the east coast with seven oil refineries. These refineries along the Delaware River provide 75% of the East Coast capacity, or a capability of processing 1.1 million barrels per day. The port provides more than 54,000 high paying jobs in the area. This project is designated as one of the nation's Strategic Military Ports.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Delaware River, Philadelphia to Trenton, PA & NJ

AUTHORIZATION: The original project was adopted as House Rivers and Harbors Committee Document 71-3 in 1930. Several modifications occurred through the years. The last two, HD 83-358 in 1954 and SD 95-88 in 1976, resulted in the current project operated and maintained by the Government

LOCATION AND DESCRIPTION: The waterway extends from Allegheny Avenue in Philadelphia, PA about 30.5 miles upstream to the Penn Central Railroad Bridge at Trenton, NJ.

RECOVERY ACT ALLOCATIONS TO DATE: \$6,157,702

CONFERENCE FOR FY 2011: TBD

ALLOCATION FOR FY 2011: \$820,000

BUDGET FOR FY 2012: M: \$175,000 O: \$920,000 T: \$1,095,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS:

NAV: Funds of \$1,095,000 will be used to perform channel exams, minor disposal area maintenance and environmental support activities.

FRM: \$0 N/A.

REC: \$0 N/A.

HYDRO: \$0 N/A.

ES: \$0 N/A.

WS: \$0 N/A.

OTHER INFORMATION: Approximately 7,000 vessels transit this deep draft navigation project annually carrying close to 8.5 million tons of various commodities such as steel, petroleum, chemicals, gypsum, fruit and coal. Several major chemical companies, a Hess oil refinery, the National Gypsum Plant and two major deep draft Marine Terminals (Tioga Terminal and the Port of Bucks County) are based along this waterway. The results of an economic impact study for the Port of Bucks County completed in November 2008 indicated that over 9,000 jobs in Pennsylvania and New Jersey are dependent on safe and economical river depths. Furthermore, the Port of Bucks generates a total of \$1.4 billion in total economic activity in the region. Recent channel examinations identify a significant loss of depth along the lower reaches of the 40-foot channel. The failure of the State of New Jersey to provide suitable disposal areas to support maintenance dredging operations along this section of the river has been a longstanding problem. A loss of navigability would have severe impacts on the regional economy.

Division: North Atlantic District: Philadelphia Project Name: Delaware River, Philadelphia to Trenton, PA & NJ

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Disposal Area Monitoring, Connecticut, Maine, Massachusetts, New Hampshire, New York and Rhode Island

AUTHORIZATION: Section 404 of the Clean Water Act of 1972 and Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972.

LOCATION AND DESCRIPTION: The 10 regional open-water dredged material disposal sites are located along coastal New England. The project involves the management and monitoring of 10 regional open-water dredged material disposal sites located along coastal New England. These sites serve over 90 percent of the disposal needs for dredging projects in New England and portions of New York. This includes projects such as Boston, New Haven, Portsmouth, Portland, Providence, New London, Mamaroneck, Port Chester, Milton and many other smaller harbors and navigation projects. Disposal sites in New England receive an average of 1.5 million cubic yards of dredged material per year from Federal, State and private dredging projects. Disposal costs would increase dramatically without access to the regional open-water sites. Surveys, along with sediment sampling and testing, are performed to assure that disposal at these regional sites does not result in hazards to navigation, that capping projects are successful and that unacceptable environmental damage does not occur.

RECOVERY ACT ALLOCATIONS TO DATE: \$297,000

CONFERENCE AMOUNT FOR FY 2011: TBD

ALLOCATION FOR FY 2011: \$1,050,000

BUDGET FOR FY 2012: M: \$0 O: \$1,050,000 T: \$1,050,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$1,050,000 – Funds will be used to perform annual disposal site monitoring; including condition surveys, sediment sampling and testing, repositioning of disposal site buoys and preparation of several monitoring study reports.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None.

Division: North Atlantic District: New England Project Name: Disposal Area Monitoring, CT, ME, MA, NH, NY & RI

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: East Brimfield Lake, Massachusetts

AUTHORIZATION: Authorized by the Flood Control Act of 1941.

LOCATION AND DESCRIPTION: East Brimfield Lake is located along the Quinebaug River, about 64.5 miles upstream from its confluence with the Shetucket River. The project is located in the Towns of Holland, Sturbridge and Brimfield, Massachusetts. The project is part of a comprehensive system of flood control projects designed to protect life and property within the Thames River Basin. The project consists of an earth-filled dam with stone slope protection, 520 feet long and a maximum height of 55 feet; an uncontrolled ogee weir spillway, 75 feet wide with a maximum discharge capacity of 15,520 cubic feet per second; and a 10.5-foot diameter horseshoe-shaped outlet conduit with 2 control gates. The reservoir provides flood storage capacity of 32,220 acre-feet to control runoff from its net drainage area of 67.5 square miles. Construction of the dam and appurtenant structures was initiated in May 1958 and completed in June 1960.

RECOVERY ACT ALLOCATIONS TO DATE: \$615,678

CONFERENCE FOR FY 2011: TBD

ALLOCATION FOR FY 2011: \$557,000

BUDGET FOR FY 2012: M: \$123,000 O: \$435,000 T: \$558,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$470,000 – Funding provides for routine essential operation and maintenance activities necessary to protect downstream life and property during flooding events, and to preserve project infrastructure. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintaining service contracts for snow and debris removal, and vegetation control along dam slopes. Also included is required inspection of four public use bridges located on project lands. Project has prevented an estimated \$110.4 million in flood damages since placed in service in 1960.

Rec: \$49,000 – Funding provides for routine operation and maintenance activities necessary to support the recreational facilities at the project. The project provides recreation opportunities to an average of 98,000 visitors each year.

Hydro: N/A

ES: \$35,000 – Funding provides for routine operation and maintenance activities necessary to maintain the environmental integrity of project lands. The project consists of 2,070 fee owned acres of land.

WS: \$4,000 – Funding provides for routine operation and maintenance activities relating to water supply at the project.

OTHER INFORMATION: East Brimfield Dam was assigned a Dam Safety Assurance Classification (DSAC) rating of III in November 2009. The principle issue is seepage. The rating of III is defined as High Priority (Conditionally Unsafe).

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: East River, NY

AUTHORIZATION: Rivers and Harbors Act of 1869 and subsequently modified by the River and Harbors Act of 1877, 1899, 1916, 1922 and 1970.

LOCATION AND DESCRIPTION: East River is located to the east of Manhattan, NY. East River Navigation project is a main channel 16 miles long, 1,000 ft. wide that meanders from the Upper New York Bay to the Long Island Sound. There are three short branch channel off of the main channel; 1) east of Welfare Island, 2) east of South Brother Island, called South Brother Island channel and 3) a channel west of South Brother Island.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

CONFERENCE AMOUNT FOR FY2011: TBD

ALLOCATION FOR FY 2011: \$2,800,000

BUDGET FOR FY2012: M: \$130,000 O: \$0 T: \$130,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY_2012:

N: \$130,000

Funds will be used to closeout FY 11 maintenance dredging contract of critical shoals at South Brother Island on this important high use waterway and to continue Caretaker status.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION:

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: East Sidney Lake, NY

AUTHORIZATION: Flood Control Act of 22 June 1936, amended by Flood Control Act of 28 June 1938 and described in House Document No. 702, 77th Congress, 2nd Session.

LOCATION AND DESCRIPTION: System Code 0205- East Sidney Lake is located on Ouleout Creek, about 5 miles above the confluence of the creek with the Susquehanna River near Unadilla, NY. The dam is a combined earthfill and concrete gravity type structure; 2,010 feet long, rising 146 feet from firm rock and 130 feet above the streambed, with a spillway and five gate-controlled outlets in the concrete section. The reservoir has a storage capacity of 33,550 acre-feet at spillway crest and has an area of 1,100 acres when filled to that level. The project controls a drainage area of 102 square miles, 5 percent of the watershed of the Susquehanna River upstream from Binghamton, NY, exclusive of the separately controlled Chenango River. The project forms part of the protection for Binghamton, and it reduces flood heights throughout the Susquehanna River basin. The Town of Sidney, NY operates and maintains the East Sidney Recreation Area under a real estate agreement.

RECOVERY ACT ALLOCATIONS TO DATE: \$57,508

CONFERENCE AMOUNT FOR FY2011: TBD

ALLOCATION FOR FY 2011: \$573,000

BUDGET FOR FY2012: M: \$167,000 **O:** \$656,000 **T:** \$823,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$0 - NA

FRM: \$789,000 - Funding will provide for Flood Risk Management operation and maintenance costs for project, which includes salaries for on-site staff, utilities, supplies, critical stream gages and contracts.

Rec: \$19,000 - Funding will provide for coordination with the recreation leasee.

Hydro: \$0 - NA

ES: \$15,000 - Funding will provide natural resources protection and conseravtion, eco-system management and meet responsibilities for safety and compliance with natural resources laws and regulations.

WS: \$0 - NA

OTHER INFORMATION: Congressional Interest: Congressman Christopher P. Gibson (NY-20), Senators Charles E. Schumer (NY), Kirsten E. Gillibrand (NY)

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Edward McDowell Lake, New Hampshire

AUTHORIZATION: Authorized by the Flood Control Acts of 1936 and 1938.

LOCATION AND DESCRIPTION: Edward MacDowell Lake is located along Nubanusit Brook, a tributary of the Contoocook River. The project is located in the Towns of Peterborough, Hancock, Dublin and Harrisville, New Hampshire. Edward MacDowell Lake is operated as part of a comprehensive system of flood control projects designed to protect life and property within the Merrimack River Basin. The project consists of an earth-filled dam with rock slope protection, 11,000 feet long with a maximum height of 67 feet; an uncontrolled ogee weir spillway, 100 feet wide with a maximum discharge capacity of 16,600 cubic feet per second; and a 7-foot square outlet conduit with 3 control gates. The reservoir provides a flood storage capacity of 12,800 acre-feet to control runoff from its net drainage area of 44 square miles. Construction of the dam and appurtenant structures was initiated in March 1948 and completed in March 1950.

RECOVERY ACT ALLOCATIONS TO DATE: \$69,509

CONFERENCE FOR FY 2011: TBD

ALLOCATION FOR FY 2011: \$635,000

BUDGET FOR FY 2012: M: \$113,000 O: \$662,000 T: \$775,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$649,000 – Funding provides for routine essential operation and maintenance activities necessary to protect downstream life and property during flooding events, and to preserve project infrastructure. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintaining service contracts for snow and debris removal, and vegetation control along dam slopes. Also included are dam safety investigations recommended by SPRA May 2008, including Interim Risk Reductions Measures Plan and seismic analysis. Project has prevented an estimated \$20.8 million in flood damages since placed in service in 1950.

Rec: \$72,000 – Funding provides for routine operation and maintenance activities necessary to support the recreational facilities at the project. The project provides recreation opportunities to an average of 94,000 visitors each year.

Hydro: N/A

ES: \$54,000 – Funding provides for routine operation and maintenance activities necessary to maintain the environmental integrity of project lands. The project consists of 1,194 fee owned acres of land.

WS: N/A

OTHER INFORMATION: Edward MacDowell Dam was assigned a Dam Safety Assurance Classification (DSAC) rating of II in September 2009. The principles issues are stability and seepage. The rating of II is defined as Urgent (Unsafe or Potentially Unsafe).

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Flushing Bay & Creek, NY

AUTHORIZATION: Authorized by the Rivers and Harbors Act of 1902 and subsequently modified by the Rivers and Harbors Acts of 1935 and 1962.

LOCATION AND DESCRIPTION: Flushing Bay and Creek, NY is located in the NY/NJ Harbor Estuary adjacent to LaGuardia Airport in the East River. The existing navigation project in Flushing Bay and Creek provides for bay channel, a creek channel, an irregularly shaped maneuvering area, and an anchorage basin.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

CONFERENCE AMOUNT FOR FY2011: TBD

ALLOCATION FOR FY 2011: \$100,000

BUDGET FOR FY2012: M: \$60,000 **O:** \$0 **T:** \$60,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY_2012:

N:

\$60,000 – Funds will be used for caretaker activities to monitor channel conditions, publish controlling depth reports, estimate incremental volumes and coordinate with USCG and local partners.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION:

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Foster J. Sayers Dam, PA

AUTHORIZATION: Flood Control Act of 3 September 1954 and described in House Document 29, 84th Congress, 1st Session.

LOCATION AND DESCRIPTION: System Code 0205- Foster Joseph Sayers Dam is located on Bald Eagle Creek approximately one mile upstream from Blanchard and 14 miles above the mouth at Lock Haven, Pennsylvania. The dam is of earthfill construction with a maximum height of 100 feet above the streambed and a top length of 6,835 feet. It has a gated outlet tunnel for the regulation of flood flows. The spillway, located in rock in a saddle adjacent to the left abutment, is uncontrolled. The reservoir has a storage capacity of 99,000 acre-feet at spillway crest, and will extend upstream for 10.0 miles. The project reduces flood heights on Bald Eagle Creek below the dam and along the West Branch below Lock Haven. The project also maintains a pool of 1,730 acres during the recreation season. The Commonwealth of Pennsylvania furnished assurances that it would coordinate the operation of its George B. Stevenson Dam with the operation of Curwensville Dam, Alvin R. Bush Dam, and Foster Joseph Sayers Dam, in order to secure optimum flood control benefits through operation as a system. The Commonwealth of Pennsylvania, Department of Conservation and Natural Resources (DCNR) operates and maintains the recreation area, Bald Eagle State Park, under a real estate lease.

RECOVERY ACT ALLOCATIONS TO DATE: \$60,800

CONFERENCE AMOUNT FOR FY2011: TBD

ALLOCATION FOR FY 2011: \$672,000

BUDGET FOR FY2012: M: \$219,000 O: \$679,000 T: \$898,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$0 - NA

FRM: \$819,000 - Funding will provide for Flood Risk Management operation and maintenance costs for project, which includes salaries for on-site staff, utilities, supplies, critical stream gages and contracts.

Rec: \$20,000 - Funding will provide for coordination with the recreation leasee.

Hydro: \$0 - NA

ES: \$59,000 - Funding will provide natural resources protection and conservation, eco-system management and meet responsibilities for safety and compliance with natural resources laws and regulations.

WS: \$0 - NA

OTHER INFORMATION: Congressional Interest: Congressman Glenn Thompson (PA- 5)
Senators Robert P. Casey, Jr. (PA), Patrick J. Toomey (PA)

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Francis E. Walter Dam & Reservoir, Pennsylvania

AUTHORIZATION: Parent Project authorized by HD 79-587 (1946), modified by HD 87-522 (1962)

LOCATION AND DESCRIPTION: The project is located on the Lehigh River, just below the mouth of Bear Creek, about 6 miles above White Haven, Pennsylvania and approximately 77 miles above the junction of the Lehigh and Delaware Rivers at Easton, Pennsylvania. Project purposes are flood control and recreation. The project consists of an earth and rock filled dam with a concrete spillway of 139,000 cfs capacity and a gate controlled outlet tunnel of 10,000 cfs capacity. The reservoir capacity is 108,000 acre-feet for flood management with a conservation pool of 2,000 acre-feet capacity. Recreation facilities also include a boat launch area, hiking trails and provision for fishing and hunting

RECOVERY ACT ALLOCATIONS TO DATE: \$1,173,009

CONFERENCE FOR FY 2011: TBD

ALLOCATION FOR FY 2011: \$880,000

BUDGET FOR FY 2012: M: \$66,000 O: \$1,150,000 T: \$1,216,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS:

NAV: N/A

FRM: \$1,150,000 will be used for routine operations & maintenance which includes the operation buildings, the dam and related structures, grounds & equipment, management of public-use areas such as access roads, parking lots, picnic areas and an overlook area. Other specific work includes continuing evaluation gathering, dam safety, real estate, Interim Risk Reduction Measures as required.

REC: \$0 N/A

HYDRO: \$0 N/A.

ES: \$66,000 will be used for labor to work on the projects Historic Management Plan. In addition, funds will be used to continue restoration of 5 acres of quarried lands adjacent to a previously restored wetland. The work includes the placement of topsoil, lime and fertilizer over the area, planting grasses, native shrubs & trees donated by the Pa. Game Commission. Work will be accomplished by onsite personnel & volunteers. The restored area will provide nesting, feeding, and breeding habitat for resident and migratory aquatic and terrestrial wildlife species.

WS: \$0 N/A.

OTHER INFORMATION: A Screening for Dam Safety Portfolio Risk Assessment (SPRA) was conducted in 2006 resulting in a Dam Safety Action Classification (DSAC) rating of III for this project. As a result of the DSAC III rating, an Interim Risk Reduction Measures Plan (IRRMP) was prepared in 2010.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Franklin Falls Dam, New Hampshire

AUTHORIZATION: Authorized by the Flood Control Acts of 1936 and 1938.

LOCATION AND DESCRIPTION: Franklin Falls Dam is located along the Pemigewasset River, about 2.5 miles upstream of Franklin, New Hampshire, in the Towns of Franklin, Hill, Bristol, Sanborton and New Hampton, New Hampshire. The project is operated as part of a comprehensive system of flood control projects designed to protect life and property within the Merrimack River Basin. The project consists of an earth-filled dam with rock slope protection, 1,740 feet long with a maximum height of 140 feet; an uncontrolled ogee weir spillway, 546 feet wide with a maximum discharge capacity of 243,000 cubic feet per second; and a 22-foot diameter horseshoe-shaped outlet conduit with 4 control gates. The reservoir provides a flood storage capacity of 154,000 acre-feet to control runoff from its net drainage area of 1,000 square miles. Construction of the dam and appurtenant structures was initiated in November 1939 and completed in October 1943.

RECOVERY ACT ALLOCATIONS TO DATE: \$218,799

CONFERENCE FOR FY 2011: TBD

ALLOCATION FOR FY 2011: \$724,000

BUDGET FOR FY 2012: M: \$174,000 O: \$595,000 T: \$769,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$626,000 – Funding provides for routine essential operation and maintenance activities necessary to protect downstream life and property during flooding events, and to preserve project infrastructure. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintaining service contracts for snow and debris removal, and vegetation control along dam slopes. Also included is the repair of gate 2, which is malfunctioning. Project has prevented an estimated \$175.2 million in flood damages since placed in service in 1943.

Rec: \$73,000 – Funding provides for routine operation and maintenance activities necessary to support the recreational facilities at the project. The project provides recreation opportunities to an average of 107,000 visitors each year.

Hydro: N/A

ES: \$70,000 – Funding provides for routine operation and maintenance activities necessary to maintain the environmental integrity of project lands. Also included are milfoil treatments at Shaw Cove boat launch area. The project consists of 3,897 fee owned acres of land.

WS: N/A

OTHER INFORMATION: Franklin Falls Dam was assigned a Dam Safety Assurance Classification (DSAC) rating of III in March 2009. The principle issues are overtopping and seepage. The rating of III is defined as High Priority (Conditionally Unsafe).

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Fox Point Hurricane Barrier, Rhode Island

AUTHORIZATION: Authorized by the Flood Control Act of 1958. Section 2866 of the National Defense Authorization Act for Fiscal Year 2007 (PL 109-364, dated October 17, 2006) transferred responsibility of the project to the Corps of Engineers.

LOCATION AND DESCRIPTION: The Fox Point Hurricane Barrier is located across the Providence River in Providence, Rhode Island, about one mile from the downtown area. The barrier is a 700-foot long concrete structure, 25 feet high and contains a 214-foot long pumping station and three 40 foot by 40 foot tainter gates. The pumping station contains five 4,500 horsepower pumps. When closed, the gates prevent entry of tidal floodwaters into the city. The project was completed in 1966 and turned over to the City of Providence to operate and maintain.

RECOVERY ACT ALLOCATIONS TO DATE: \$3,600,915

CONFERENCE FOR FY 2011: TBD

ALLOCATION FOR FY 2011: \$500,000

BUDGET FOR FY 2012: M: \$215,000 O: \$343,000 T: \$558,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012

N: N/A

FRM: \$558,000 – Funding provides for routine essential operation and maintenance activities necessary to operate the barrier gates and protect life and property in downtown Providence during coastal flooding events, and to preserve project infrastructure. Activities include data collection, environmental compliance, project inspections and patrols, and gate operation. Also included is required five year cycle Periodic Inspection of the project. Project has prevented an estimated \$2.5 million in flood damages since placed in service in 1966.

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: In accordance with the National Defense Authorization Act of 2007, O&M responsibility of the project was transferred to the Corps in January 2010.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Gathright Dam and Lake Moomaw, VA

AUTHORIZATION: The 1964 Flood Control Act.

LOCATION AND DESCRIPTION: Gathright Dam and Lake Moomaw, located 43 miles above the mouth of the Jackson River, and 17 miles upstream of Covington, Virginia, are operated to reduce flood damages at downstream locations, augment low flow conditions and provide for water-based recreation.

RECOVERY ACT ALLOCATIONS TO DATE: \$259,968

CONFERENCE AMOUNT FOR FY 2011: TBD

ALLOCATION FOR FY 2011: \$2,268,000

BUDGET FOR FY 2012: M: \$0 **O:** \$2,253,000 **T:** \$2,253,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$ N/A

FRM: \$2,253,000 - This funding amount is required to operate the dam, intake tower, water treatment plant, sewage treatment plant and support facilities and will fund operations for 100 percent of the year.

Rec: \$ N/A

Hydro: \$ N/A

ES: \$ N/A

WS: \$ N/A

OTHER INFORMATION: The requested funding is necessary for the District to insure the continued safety and integrity of Gathright Dam. Although funded only for Flood Risk Management, the project also provides improved water quality through low flow augmentation. Recreation services are provided at sites operated by the U.S. Forest Service.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: General Edgar Jadwin Dam and Reservoir, Pennsylvania

AUTHORIZATION: This project was authorized via HD 113, 80th Congress, 1st Session (1948).

LOCATION AND DESCRIPTION: The project is located in Wayne County, Pennsylvania along the Dyberry Creek, a tributary of the Lackawaxen River, about 3 miles upstream of Honesdale, PA and approximately 30 miles above the junction of the Lackawaxen and Delaware Rivers. This flood risk management project was completed and placed into service in 1960. The facility consists of an earth and rock fill dam with a low-level un-gated outlet works, and an emergency spillway. The dam is 1255 feet long with a top width of 40 feet, and a top elevation of 1082 ft NGVD, approximately 112 feet above the natural streambed. The outlet tunnel has a capacity of 2,500 cfs and the chute-type spillway has a capacity of 69,000 cfs capacity. Reservoir capacity is 24,500 acre-feet for flood control, with no conservation pool. Recreational Facilities - There is no permanent pool and no provisions have been made for recreational use however low impact opportunities such as hunting, stream fishing, hiking and bird watching are enjoyed by visitors to the project lands.

RECOVERY ACT ALLOCATIONS TO DATE: \$883,798

CONFERENCE FOR FY 2011: TBD

ALLOCATION FOR FY 2011: \$250,000

BUDGET FOR FY 2012: M: \$50,000 O: \$350,000 T: \$400,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS:

NAV: N/A

FRM: \$400,000 will be used for normal operations and maintenance, water control analysis, real estate (NAB), continuing evaluation gathering, dam safety, water control data collection, and a required periodic dam inspection.

REC: \$0 N/A

HYDRO: \$0 N/A.

ES: \$0 N/A.

WS: \$0 N/A.

OTHER INFORMATION: A Screening for Dam Safety Portfolio Risk Assessment (SPRA) was conducted in 2009 resulting in a Dam Safety Action Classification (DSAC) rating of II for this project. As a result of the DSAC II rating, a required Interim Risk Reduction Measures Plan (IRRMP) is in preparation.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Great Salt Pond, Block Island, Rhode Island

AUTHORIZATION: Rivers and Harbors Acts of 1896, 1900 and 1902.

LOCATION AND DESCRIPTION: Block Island is located about 13 miles off the south coast of Rhode Island. Great Salt Pond is located on the west side of Block Island. The project provides for an entrance channel 18 feet deep and 300 feet wide into Great Salt Pond, with two stone jetties (one either side of the entrance channel). The project was last dredged in June 2009 when the Government owned dredge, the CURRITUCK, removed a hazardous shoal from the entrance channel.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

CONFERENCE AMOUNT FOR FY 2011: TBD

ALLOCATION FOR FY 2011: \$0

BUDGET FOR FY 2012: M: \$250,000 O: \$0 T: \$250,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$250,000 – Funds will be used to perform maintenance dredging of the entrance channel using the Government owned dredge the CURRITUCK.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: In 2008, waterborne commerce totaled 14 thousand tons.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Hampton Roads, Drift Removal, VA

AUTHORIZATION: Section 102 of the River and Harbor Act of 1950

LOCATION AND DESCRIPTION: The project area includes Hampton Roads, the harbors of Norfolk and Newport News, and tributary waters in Virginia. The project provides for the collection and removal of floating debris for the protection of navigation. Removal of debris 7 days a week is essential for the safety of the port, Homeland Security, US Navy and commercial shipping traffic. The project also provides for disposal of debris at Craney Island. The principal tributaries are the James River, Elizabeth River, and Nansemond River. The harbor area involves a total water surface of about 75 square miles, with approximately 32 miles of developed waterfront and 300 terminal facilities.

RECOVERY ACT ALLOCATIONS TO DATE: \$175,994

CONFERENCE AMOUNT FOR FY 2011: TBD

ALLOCATION FOR FY 2011: \$1,225,000

BUDGET FOR FY 2012: M: \$1,048,000 **O:** \$0 **T:** \$1,048,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$1,048,000 – Funds will provide an efficient and cost effective method of preventing collisions with hulls and critical appendages and possible sinking of military, commercial and pleasure vessels

FRM: \$ N/A

Rec: \$ N/A

Hydro: \$ N/A

ES: \$ N/A

WS: \$ N/A

OTHER INFORMATION: In some previous years, the funding on this project was reduced and did not allow the program to continue debris collection 7 days a week. The budget amount for FY 2012 will enable debris collection daily, 7 days a week. The channels supported by this project provide an average of over 100,000 vessel trips annually.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Hampton Roads, Prevention of Obstructive Deposits, VA

AUTHORIZATION: The Act of June 29, 1888, amended August 28, 1958, provides for preservation of the tidal waters of Hampton Roads and adjacent or tributary waters.

LOCATION AND DESCRIPTION: The project provides for detection and prevention of the illegal deposit into navigable waters of waste, oil, sludge, refuse, and other types of debris from vessels and shore installations. The Corps of Engineers Supervisor of the Harbor, in coordination with U. S. Coast Guard, Department of Justice, and other Federal and State agencies, is designated to conduct the program. The jurisdiction of the Supervisor of the Harbor of Hampton Roads includes Hampton Roads and reaches of Chesapeake Bay, the Atlantic Ocean located in Virginia and tidal portion of their tributaries, including the James River, York River, Rappahannock River, and south shore of the Potomac River.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

CONFERENCE AMOUNT FOR FY 2011: TBD

ALLOCATION FOR FY 2011: \$0

BUDGET FOR FY 2012: M: \$0 **O:** \$75,000 **T:** \$75,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$75,000 – Funds will provide the ability to perform safety patrols to ensure potential offenders are not disposing of waste and materials in waterways used by military, commercial, and recreational vessels. Failure to fund this project will result in degradation of the navigable waters, the potential for navigation accidents, and possible sinking of military, commercial and pleasure vessels.

FRM: \$ N/A

Rec: \$ N/A

Hydro: \$ N/A

ES: \$ N/A

WS: \$ N/A

OTHER INFORMATION: In prior fiscal years, the elimination of services allowed the potential for unrestricted deposits in all tidal waterways of Virginia. In one year alone, over 750 phone calls were received for action to which the Corps could not respond. The budgeted amount in FY 2012 will enable the program to continue. This project contributes directly to national commerce and economic benefits by providing an efficient, cost-effective method of ensuring refuse and other injurious materials do not get into navigable waters of Hampton Roads and contributes to the safe passage of over 100,000 vessel trips. The prevention of waste and refuse deposits into the waterways also reduces water pollution and consequent impacts to marine habitat and wetlands in the Chesapeake Bay and its tributaries.

Division: North Atlantic District: Norfolk Project Name: Prevention of Obstructive and Injurious
Deposits, Hampton Roads, VA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Hancock Brook Lake, Connecticut

AUTHORIZATION: Authorized by the Flood Control Act of 1960.

LOCATION AND DESCRIPTION: Hancock Brook Lake is located along Branch Brook, about 2 miles upstream from its confluence with the Naugatuck River. The project is located in Thomaston and Watertown, Connecticut. Hancock Brook Lake is part of a comprehensive system of flood control projects designed to protect life and property within the Housatonic River Basin. The project consists of an earth-filled dam with an impervious core and stone slope protection, 630 feet long and a maximum height of 57 feet; an uncontrolled ogee weir spillway, 100 feet wide with a maximum discharge capacity of 16,600 cubic feet per second; and an un-gated rectangular outlet conduit. The reservoir provides a flood storage capacity of 4,030 acre-feet to control runoff from its net drainage area of 12 square miles. Construction of the dam and appurtenant structures was initiated in July 1963 and completed in August 1966.

RECOVERY ACT ALLOCATIONS TO DATE: \$94,434

CONFERENCE FOR FY 2011: TBD

ALLOCATION FOR FY 2011: \$478,000

BUDGET FOR FY 2012: M: \$66,000 O: \$310,000 T: \$376,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$279,000 – Funding provides for routine essential operation and maintenance activities necessary to protect downstream life and property during flooding events, and to preserve project infrastructure. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintaining service contracts for snow and debris removal, and vegetation control along dam slopes. Project has prevented an estimated \$38.4 million in flood damages since placed in service in 1966.

Rec: \$49,000 – Funding provides for routine operation and maintenance activities necessary to support the recreational facilities at the project. The project provides recreation opportunities to an average of 73,000 visitors each year.

Hydro: N/A

ES: \$48,000 – Funding provides for routine operation and maintenance activities necessary to maintain the environmental integrity of project lands. The project consists of 707 fee owned acres of land.

WS: N/A

OTHER INFORMATION: Hancock Brook Dam and the Rail Road Dike portion of the project were assigned Dam Safety Assurance Classification (DSAC) ratings of III in November 2009. The principle issue is seepage for both the dam and dike. The rating of III is defined as High Priority (Conditionally Unsafe).

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Hodges Village Dam, Massachusetts

AUTHORIZATION: Authorized by the Flood Control Act of 1941.

LOCATION AND DESCRIPTION: Hodges Village Dam is located along the French River, about 15 miles upstream from its confluence with the Quinebaug River. The project is located in the Town of Oxford, Massachusetts. Hodges Village Dam is part of a comprehensive system of flood control projects designed to protect life and property within the Thames River Basin. The project consists of an earth-filled dam with stone slope protection, 2,140 feet long and a maximum height of 54.5 feet; 4 earth-filled dikes with stone slope protection, a total length of 2,560 feet and a maximum height of 16 feet; an uncontrolled ogee weir spillway, 125 feet wide with a maximum discharge capacity of 25,800 cubic feet per second; and 2 rectangular outlet conduits with 2 control gates. The reservoir provides a flood storage capacity of 13,250 acre-feet to control runoff from its net drainage area of 31.1 square miles. Construction of the dam and appurtenant structures was initiated in March 1958 and completed in December 1959. Major rehabilitation of the dam was completed in July 2000.

RECOVERY ACT ALLOCATIONS TO DATE: \$167,424

CONFERENCE FOR FY 2011: TBD

ALLOCATION FOR FY 2011: \$629,000

BUDGET FOR FY 2012: M: \$147,000 O: \$433,000 T: \$580,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$483,000 – Funding provides for routine essential operation and maintenance activities necessary to protect downstream life and property during flooding events, and to preserve project infrastructure. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintaining service contracts for snow and debris removal, and vegetation control along dam slopes. Also included is required inspection of one public use bridge located on project lands. Project has prevented an estimated \$128.2 million in flood damages since placed in service in 1959.

Rec: \$66,000 – Funding provides for routine operation and maintenance activities necessary to support the recreational facilities at the project. The project provides recreation opportunities to an average of 120,000 visitors each year.

Hydro: N/A

ES: \$31,000 – Funding provides for routine operation and maintenance activities necessary to maintain the environmental integrity of project lands. Also included is boundary monument recertification on project lands. The project consists of 867 fee owned acres of land.

WS: N/A

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Hop Brook Lake, Connecticut

AUTHORIZATION: Authorized by the Flood Control Act of 1960.

LOCATION AND DESCRIPTION: Hop Brook Lake is located on Hop Brook, about 1.4 miles upstream from its confluence with the Naugatuck River. The project is located in Waterbury, Middlebury and Naugatuck, Connecticut. Hop Brook Lake is part of a comprehensive system of flood control projects designed to protect life and property within the Housatonic River Basin. The project consists of an earth-filled dam with an impervious core and stone slope protection, 520 feet long with a maximum height of 97 feet; an earth-filled dike 440 feet long with a maximum height of 33 feet; an uncontrolled broad crested spillway weir, 200 feet wide with a maximum discharge capacity of 23,000 cubic feet per second; and a rectangular outlet conduit with 2 control gates. The reservoir provides a flood storage capacity of 6,970 acre-feet to control runoff from its net drainage area of 16.4 square miles. Construction of the dam and appurtenant structures was initiated in December 1965 and completed in December 1968.

RECOVERY ACT ALLOCATIONS TO DATE: \$163,020

CONFERENCE FOR FY 2011: TBD

ALLOCATION FOR FY 2011: \$1,092,000

BUDGET FOR FY 2012: M: \$128,000 O: \$894,000 T: \$1,022,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$616,000 – Funding provides for routine essential operation and maintenance activities necessary to protect downstream life and property during flooding events, and to preserve project infrastructure. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintaining service contracts for snow and debris removal, and vegetation control along dam slopes. Project has prevented an estimated \$51 million in flood damages since placed in service in 1968.

Rec: \$297,000 – Funding provides for routine operation and maintenance activities necessary to support the recreational facilities at the project. The project provides recreation opportunities to an average of 198,000 visitors each year.

Hydro: N/A

ES: \$109,000 – Funding provides for routine operation and maintenance activities necessary to maintain the environmental integrity of project lands. Also included is a wetland survey on project lands. The project consists of 538 fee owned acres of land.

WS: N/A

OTHER INFORMATION: Hop Brook Dam was assigned a Dam Safety Assurance Classification (DSAC) rating of II in 2005. The principle issue is seepage. The rating of II is defined as Urgent (Unsafe or Potentially Unsafe). A grouting contract was awarded in September 2009, using ARRA Construction funds, to address the seepage issue at the dam.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Hopkinton-Everett Lakes, New Hampshire

AUTHORIZATION: Authorized by the Flood Control Act of 1938.

LOCATION AND DESCRIPTION: Hopkinton Lake is located along the Contoocook River, about 17.3 miles upstream of its junction with the Merrimack River and one-half mile upstream from the Village of West Hopkinton, New Hampshire. Everett Lake is located along the Piscataquog River, about 16 miles upstream of its junction with the Merrimack River and about 1.3 miles southeast of the Village of East Weare, New Hampshire. Hopkinton-Everett Lakes are operated as part of a comprehensive system of flood control projects designed to protect life and property within the Merrimack River Basin. Hopkinton Lake consists of an earth-filled dam with rock slope protection, 790 feet long with a maximum height of 76 feet; 4 earth-filled dikes with a total length of 16,300 feet; an uncontrolled ogee weir spillway, 300 feet wide with a maximum discharge capacity of 135,000 cubic feet per second; and three 11-foot square outlet conduits with 6 control gates. Everett Lake consists of an earth-filled dam with rock slope protection, 2,000 feet long with a maximum height of 115 feet; an uncontrolled ogee weir spillway, 175 feet wide with a maximum discharge capacity of 68,000 cubic feet per second; and an 8-foot diameter outlet conduit with 3 control gates. The two reservoirs provide a total flood storage capacity of 92,500 acre-feet to control runoff from their net drainage areas of 446 square miles. Construction of the dams were initiated in November 1959 and completed in December 1962.

RECOVERY ACT ALLOCATIONS TO DATE: \$402,376

CONFERENCE FOR FY 2011: TBD

ALLOCATION FOR FY 2011: \$1,440,000

BUDGET FOR FY 2012: M: \$247,000 O: \$1,193,000 T: \$1,440,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$1,059,000 – Funding provides for routine essential operation and maintenance activities necessary to protect downstream life and property during flooding events, and to preserve project infrastructure. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintaining service contracts for snow and debris removal, and vegetation control along dam slopes. Also included is required five year cycle Periodic Inspection of the project and inspection of one public use bridge locate on project lands. Project has prevented an estimated \$216 million in flood damages since placed in service in 1962.

Rec: \$181,000 – Funding provides for routine operation and maintenance activities necessary to support the recreational facilities at the project. The project provides recreation opportunities to an average of 313,000 visitors each year.

Hydro: N/A

ES: \$200,000 – Funding provides for routine operation and maintenance activities necessary to maintain the environmental integrity of project lands. The project consists of 7,992 fee owned acres of land.

WS: N/A

OTHER INFORMATION: Everett Dam and Dikes P1 and P2 portions of the project were assigned Dam Safety Assurance Classification (DSAC) ratings of III in March 2009. The principle issue for both the dam and dikes is seepage. The rating of III is defined as High Priority (Conditionally Unsafe).

Division: North Atlantic

District: New England

Project Name: Hopkinton-Everett Lakes, NH

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Hudson River Channel, NY

AUTHORIZATION: Rivers and Harbors Acts of 1913 and modified in 1917 and 1937

LOCATION AND DESCRIPTION: A channel 45 ft. deep, suitably widened at bends, from deep water in Upper New York Bay to W. 40th St., Manhattan, and thence 48 ft. deep, 2,000 ft. wide to 59th St. Length – about 6 miles. A channel 40 ft. deep for the full width of the river, extending from deep water in Upper New York Bay off Ellis Island to W. 59th St., Manhattan. Length – about 6 miles. A channel, 30 ft. deep, 750 ft. wide, along the Weehawken-Edgewater waterfront. Length – about 5 miles.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

CONFERENCE AMOUNT FOR FY2011: TBD

ALLOCATION FOR FY 2011: T: \$100,000

BUDGET FOR FY2012: M: \$60,000 **O:** \$0 **T:** \$60,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$60,000

Funds will be used for caretaker activities to monitor channel conditions, publish controlling depth reports, coordination with USCG and local partners

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION:

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Hudson River, NY (Maintenance)

AUTHORIZATION: House Document 719, 81st Congress, 2nd Session (Jun 1910) and modified by House Document 350, 88th Cong., 1st Session (Mar 1925); House Document 210, 70th Cong., 1st Session (Jul 1930); SD 155, 72nd Cong., 2nd Session (Aug 1935); House Document 572, 75th Cong., 3rd Session (Jun 1930); and PL 780, 83rd Cong., 2nd Session (Sep 1954).

LOCATION AND DESCRIPTION: The Hudson River, New York federal navigation project consists of a channel approximately 155 miles in length extending from New York City, N.Y. to its upstream terminus at Waterford, N.Y. The Hudson River Maintenance project provides for maintenance of the 32 feet deep navigation channel extending approximately 145 miles from New York City to Albany, N.Y, continuing with a 14 feet deep navigation channel extending approximately 10 miles upstream from Albany to the intersection with the New York State Barge Canal System at Waterford, N.Y.

RECOVERY ACT ALLOCATIONS TO DATE: \$744,937

CONFERENCE AMOUNT FOR FY2011 TBD

ALLOCATION FOR FY 2011: \$3,700,000

BUDGET FOR FY2012: M: \$2,150,000 O: \$0 T: \$2,150,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY_2012:

N: \$2,150,000

Funds will be used for maintenance dredging contract to restore project depths in the Hudson River Germantown reaches. Funds will also be used to perform hired labor project condition surveys and channel maintenance activities.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION:

Division: North Atlantic District: New York Project Name: Hudson River, NY (Maintenance)

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Hudson River, NY (O&C)

AUTHORIZATION: House Document 719, 81st Congress, 2nd Session (Jun 1910) and modified by House Document 350, 88th Cong., 1st Session (Mar 1925); House Document 210, 70th Cong., 1st Session (Jul 1930); SD 155, 72nd Cong., 2nd Session (Aug 1935); House Document 572, 75th Cong., 3rd Session (Jun 1930); and PL 780, 83rd Cong., 2nd Session (Sep 1954).

LOCATION AND DESCRIPTION: The Hudson River O&C project provides for operation and care of the Troy Lock and Dam located on the Hudson River, Troy, New York approximately 2.5 miles below the upstream limit of the Hudson River Federal Navigation Channel at Waterford, N.Y.

RECOVERY ACT ALLOCATIONS TO DATE: \$1,509,567

CONFERENCE AMOUNT FOR FY2011: TBD

ALLOCATION FOR FY 2011: \$1,650,000

BUDGET FOR FY2012: M: \$0 **O:** \$1,700,000 **T:** \$1,700,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY_2012:

N: \$1,700,000

Funds will be used to operate the navigation lock at Troy, N.Y. at a minimum level of service to match NYS Canal Corporation operations and perform only essential repairs/maintenance required to keep facility operational.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION:

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: IWW, Delaware River to Chesapeake Bay, Delaware and Maryland

AUTHORIZATION: HD 63-196 in 1919 and modified by Section 3 of the R & H Act of 1927, by R & H Comm. Doc. 71-41 and SD 71-151 in 1930, by HD 72-201, HD 73-18, and HD 73-24 in 1935, and by SD 83-123 in 1954 and modified by H.R. 5314 (WRDA 1990).

LOCATION AND DESCRIPTION: The waterway extends from Reedy Point on the Delaware River, about 41 miles downstream from Philadelphia, Pa. through a sea level canal westward to the Elk River, thence following the Elk River and the upper Chesapeake Bay to deep water near Pooles Island. Maintenance consists of 46 miles of channels (35' x 450'), an anchorage and turning basin on Back Creek and at Chesapeake City, and the Delaware City Branch channel (8' x 50' x 2 miles). Maintain and repair of 5 high level bridges. Maintain entrance jetties at Reedy Point, maintenance roads and drainage ditches along canal banks, upland disposal areas, and rip rap or bulkhead of stabilized channel banks by leased contract.

RECOVERY ACT ALLOCATIONS TO DATE: \$17,235,511

CONFERENCE FOR FY 2011: TBD:

ALLOCATION FOR FY 2011: \$ 16,075,000

BUDGET FOR FY 2012: M: \$15,873,000 O: \$2,775,000 T: \$18,648,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS:

NAV: \$18,648,000. With the President's Budget, \$18,648,000 will be used for normal operations and maintenance of the project, including dispatching & maintenance of CCTV system, channel exams, and to meet legal requirements for five (5) high level highway bridges. Funding will also be used to maintain buildings, grounds, utilities, canal banks & disposal areas; to perform periodic inspection of Reedy Point, Summits and SR-1 Bridges; perform miscellaneous repairs, remove lead paint, and apply corrosion protection to Delaware City and Reedy Point Bridge (Phase I); perform repairs to the approach roads and deck of the St. Georges Bridge, to perform load rating and fatigue analysis of Reedy Point and Summit Bridge, and to repair cable stays on SR-1 Bridge.

FRM: \$0 N/A.

REC: \$0 N/A.

HYDRO: \$0 N/A.

ES: \$0 N/A.

WS: \$0 N/A.

OTHER INFORMATION: It is anticipated that CENAP will take ownership of the Senator Roth Bridge (SR-1) in FY 2011. Transfer documentation is currently being reviewed by HQUSACE Real Estate Counsel. Final review comments are expected by 14 January 2011.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Jamaica Bay, NY

AUTHORIZATION: Rivers and Harbors Act of 21910 and subsequently modified by the Rivers and Harbors Act of 1945 and 1950.

LOCATION AND DESCRIPTION: Jamaica Bay federal navigation channel/Rockaway Inlet is located along the south shore of New York City. The entrance channel only is approximately 2 miles in length.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

CONFERENCE AMOUNT FOR FY2011: TBD

ALLOCATION FOR FY 2011: \$120,000

BUDGET FOR FY2012: M: \$3,360,000 O: \$0 T: \$3,360,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY_2012:

N: \$3,360,000

Maintenance dredging of federal navigation channel to restore navigational safety to users and to provide sand for beneficial use in marsh island restoration in and around the Jamaica Bay Wildlife Complex. Delay of dredging will affect safe delivery of petroleum products and sewage sludge; Inlet is the only waterway access into Jamaica Bay. Failure to dredge will increase risk to public and deny an extremely desirable source of sand on a regular basis to the beaches, marshlands, and other beneficial use sites administered by the National Park Service (Gateway National Recreation Area), Port Authority of NY&NJ, New York State DEC and the NYC Parks and Recreation.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION:

Division: North Atlantic

District: New York

Project Name: Jamaica Bay, NY

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: James River, VA

AUTHORIZATION: River and Harbor Act of 5 July 1884. The project was modified by the River and Harbor Acts of 13 June 1902, 3 March 1905, 3 July 1930, 26 August 1937, 2 March 1945, 17 May 1950 and 23 October 1962.

LOCATION AND DESCRIPTION: The James River channel provides approximately 90 miles of deep-draft navigation from Hampton Roads, VA to Richmond, VA. The project provides for a channel 25 feet deep, 300 feet wide from Hampton Roads to Hopewell, VA, approximately 70 miles, and 25 feet deep, 200 feet wide from Hopewell to Richmond Deepwater Terminal, approximately 15 miles. Thence, 18 feet deep, 200 feet wide from Richmond Deepwater Terminal to the head of navigation at the Richmond locks, approximately 5 miles.

RECOVERY ACT ALLOCATIONS TO DATE: \$3,314,408

CONFERENCE AMOUNT FOR FY 2011: TBD

ALLOCATION FOR FY 2011: \$4,180,000

BUDGET FOR FY 2012: M: \$4,188,000 O: \$175,000 T: \$4,363,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$4,363,000 - Dredging will be performed at Dancing Point-Swann Point Shoal, Richmond Deepwater Terminal, Tribell Shoal, Jordan Point-Windmill Point Shoal and Goose Hill Shoal channels. Dredging these rapidly shoaling reaches to 26 feet ensures safe, unrestricted navigation to Hopewell and Richmond, VA. Condition surveys will be performed on critical shoals along the river, ensuring Pilots have updated information for safe navigation.

FRM: \$ N/A

Rec: \$ N/A

Hydro: \$ N/A

ES: \$ N/A

WS: \$ N/A

OTHER INFORMATION: The project supports deep-draft commercial navigation to the Ports of Hopewell and Richmond, and numerous industries along the river. The channel is dredged, at different locations, annually. Higher-than-normal shoaling in FY 2010 forced the Virginia Pilots Association to impose a draft restriction on vessels transiting the project.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Jennings Randolph Lake, MD & WV

AUTHORIZATION: Flood Control Act of 23 October 1962 (PL 87-874) and described in House Document 469, 87th Congress, 2nd Session.

LOCATION AND DESCRIPTION: System Code 0207- Jennings Randolph Lake project, located in Garrett County, Maryland, and Mineral County, West Virginia, on the North Branch Potomac River, is 7.9 miles upstream from the mouth of Savage River at Bloomington, MD. The dam is a rolled earth and rockfill structure rising 296 feet from the streambed and extending 2,130 feet across the valley. The project includes a rolled earth and rockfill dike 900 feet long on the left (north) bank, and a spillway with tainter gates along the ridge between the dike and the dam. Outlet works are provided in the right (south) abutment. With a full conservation pool, the lake, controlling a drainage area of 263 square miles, is about 5.5 miles long and has a surface area of 952 acres. Forty-five percent of the storage space in the project is allocated for water supply storage, owned by the Washington Suburban Sanitary Commission, District of Columbia, and Fairfax County. The Corps operates and maintains six recreation areas, and two recreation areas are operated and maintained by Mineral County and the Maryland Department of Natural Resources under real estate leasee.

RECOVERY ACT ALLOCATIONS TO DATE: \$617,563

CONFERENCE AMOUNT FOR FY2011: TBD

ALLOCATION FOR FY 2011: \$1,756,000

BUDGET FOR FY2012: M: \$237,000 **O:** \$1,718,000 **T:** \$1,955,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$0 - NA

FRM: \$1,400,000 - Funding will provide for Flood Risk Management operation and maintenance costs for project, which includes salaries for on-site staff, utilities, supplies, critical stream gages and contracts.

Rec: \$359,000 - Funding will provide for operation and maintenance of, which includes salaries for permanent and seasonal staf, utilities, supplies and contracts.

Hydro: \$0 - NA

ES: \$166,000 - Funding will provide natural resources protection and conseravtion, eco-system management and meet responsibilities for safety and compliance with natural resources laws and regulations.

WS: \$30,000 - Funding will provide for water coordination.

OTHER INFORMATION: Congressional Interest: Congressmen Roscoe G. Bartlett (MD-6), David McKinley (WV-1), Senators Barbara A. Mikulski (MD), Benjamin L. Cardin (MD), Joseph Manchin (WV), John D. Rockefeller IV (WV)

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Knightville Dam, Massachusetts

AUTHORIZATION: Authorized by the Flood Control Acts of 1936 and 1938.

LOCATION AND DESCRIPTION: Knightville Dam is located along the Westfield River, about 27.5 miles above its junction with the Connecticut River and approximately 4 miles north of Huntington, Massachusetts. Knightville Dam is operated as part of a comprehensive system of flood control projects designed to protect life and property within the Connecticut River Basin. The project consists of an earth-filled dam with an impervious core and rock slope protection, 1,200 feet long with a maximum height of 160 feet; an uncontrolled ogee weir spillway, 400 feet wide with a maximum discharge capacity of 83,000 cubic feet per second; and a 16-foot diameter outlet conduit with 3 control gates. The reservoir provides a flood storage capacity of 49,000 acre-feet to control runoff from its net drainage area of 162 square miles. Construction of the dam and appurtenant structures was initiated in August 1939 and completed in December 1941.

RECOVERY ACT ALLOCATIONS TO DATE: \$574,242

CONFERENCE FOR FY 2011: TBD

ALLOCATION FOR FY 2011: \$688,000

BUDGET FOR FY 2012: M: \$112,000 O: \$580,000 T: \$692,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$594,000 – Funding provides for routine essential operation and maintenance activities necessary to protect downstream life and property during flooding events, and to preserve project infrastructure. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintaining service contracts for snow and debris removal, and vegetation control along dam slopes. Project has prevented an estimated \$201.6 million in flood damages since placed in service in 1941.

Rec: \$49,000 – Funding provides for routine operation and maintenance activities necessary to support the recreational facilities at the project. The project provides recreation opportunities to an average of 42,000 visitors each year.

Hydro: N/A

ES: \$49,000 – Funding provides for routine operation and maintenance activities necessary to maintain the environmental integrity of project lands. The project consists of 2,430 fee owned acres of land.

WS: N/A

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Littleville Lake, Massachusetts

AUTHORIZATION: Authorized by the Flood Control Act of 1958.

LOCATION AND DESCRIPTION: Littleville Lake is located along the Middle Branch of the Westfield River, about one mile above its confluence with the main stem of the Westfield River and two miles north of Huntington, Massachusetts. Littleville Lake is part of a comprehensive system of flood control projects designed to protect life and property within the Connecticut River Basin. The project consists of an earth-filled dam with an impervious core and rock slope protection, 1,360 feet long and a maximum height of 164 feet; an earth-filled dike 935 feet in length; an uncontrolled ogee weir spillway, 400 feet wide with a maximum discharge capacity of 92,000 cubic feet per second; an 8-foot diameter horseshoe-shaped outlet conduit with 2 control gates for flood control; and a 4-foot diameter outlet conduit with 1 butterfly and 6 sluice gates for water supply. The reservoir provides a flood storage capacity of 32,400 acre-feet to control runoff from its net drainage area of 52.3 square miles. Construction of the dam and appurtenant structures was initiated in June 1962 and completed in September 1965.

RECOVERY ACT ALLOCATIONS TO DATE: \$375,832

CONFERENCE FOR FY 2011: TBD

ALLOCATION FOR FY 2011: \$682,000

BUDGET FOR FY 2012: M: \$74,000 O: \$569,000 T: \$643,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$532,000 – Funding provides for routine essential operation and maintenance activities necessary to protect downstream life and property during flooding events, and to preserve project infrastructure. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintaining service contracts for snow and debris removal, and vegetation control along dam slopes. Also included is the required inspection of one public use bridge located on project lands. Project has prevented an estimated \$75.8 million in flood damages since placed in service in 1965.

Rec: \$49,000 – Funding provides for routine operation and maintenance activities necessary to support the recreational facilities at the project. The project provides recreation opportunities to an average of 35,000 visitors each year.

Hydro: N/A

ES: \$56,000 – Funding provides for routine operation and maintenance activities necessary to maintain the environmental integrity of project lands. The project consists of 1,567 fee owned acres of land.

WS: \$6,000 – Funding provides for routine operation and maintenance activities relating to water supply at the project.

OTHER INFORMATION: Littleville Dam was assigned a Dam Safety Assurance Classification (DSAC) rating of III in March 2009. The principle issue is seepage. The rating of III is defined as High Priority (Conditionally Unsafe).

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Long Island Sound (LIS) Dredged Material Management Plan (DMMP), Connecticut and New York

AUTHORIZATION: Public laws authorizing existing federal navigation projects adjacent to LIS in Connecticut and New York. The Governors of these states, in a joint letter dated 8 February 2005, requested the Corps to develop a regional DMMP for the LIS Region.

LOCATION AND DESCRIPTION: LIS is located between the State of Connecticut and Long Island, New York. There are 55 existing Federal navigation projects that require periodic maintenance dredging in the LIS region, extending from Throggs Neck to Block Island Sound. Existing disposal sites include selected ocean and 404 sites in LIS, and in-water/upland sites including beach nourishment consistent with existing authorizations. The U.S. Environmental Protection Agency (EPA) Region I and II, as well as the New York District are cooperating in the preparation of the DMMP. Dredging and management of dredged material is vital to the economic and environmental well being of both states. However, basic differences exist between the states over the designation of open water disposal sites in LIS. The interests of all stakeholders are best served by development of a comprehensive plan to address future dredged material disposal needs and management protocols in a regional DMMP. The states in partnership with the Corps, EPA and other local, state and federal agencies will form a team committed to an open and inclusive process for developing the DMMP. This partnership will insure that all parties contribute resources and achieve consensus for alternative disposal options, including reducing sediment sources and contaminant loading, and developing beneficial reuses for dredged material, with the goal of reducing or eliminating the need for open water disposal.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

CONFERENCE AMOUNT FOR FY 2011: TBD

ALLOCATION FOR FY 2011: \$2,000,000

BUDGET FOR FY 2012: M: \$0 O: \$1,000,000 T: \$1,000,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$1,000,000 – Funds will be used to continue preparation of the DMMP; including cultural inventory, air quality analysis, field investigations, and biological and chemical sampling and testing.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Manasquan River, New Jersey

AUTHORIZATION: HD 70-482 as modified by HD 77-356 and PL 99-662

LOCATION AND DESCRIPTION: The Manasquan River connects the New Jersey Intracoastal Waterway with the Atlantic Ocean. This navigation project provides for 2 jetties; a channel 14 feet deep and 250 feet wide from the ocean to the inner end of the north jetty; and a channel 12 feet deep and 100 to 300 feet wide extending to within 300 feet of the railroad bridge. Project length is 1.5 miles

RECOVERY ACT ALLOCATIONS TO DATE: \$0

EMERGENCY SUPPLEMENTAL: \$250,000

CONFERENCE FOR FY 2011: TBD

ALLOCATION FOR FY 2011: \$0

BUDGET FOR FY 2012: M: \$300,000 O: \$0 T: \$300,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS:

NAV: Funds will be used to perform channel exams and maintenance dredging.

FRM: \$0 N/A.

REC: \$0 N/A.

HYDRO: \$0 N/A.

ES: \$0 N/A.

WS: \$0 N/A.

OTHER INFORMATION: This project is valuable to the nation because it provides a safe, reliable, and efficient navigation channel for a critical inlet in the state of New Jersey. Each year thousands of boats pass through the Inlet generating millions of dollars of business and commerce. Both recreational and commercial fishermen heavily use the Inlet generating over \$128 million of economic value to the nation and over \$20 million in direct fish value annually (NMFS, 2009). During summer months, at least 500 boats pass through the Inlet each day (USCG, 2010). The US Coast Guard Station is located on the waterway and must have a reliable channel to fulfill their Homeland Security requirements and conduct critical life-safety, search and rescue operations. A beach nourishment project updrift of the inlet significantly increased shoaling at the mouth of the river and caused safety problems for commercial and recreational users of the inlet. Depending on beachfill placement operations, the inlet should be dredged two to three times a year to provide a reliable, efficient and safe navigation channel. Material dredged from the inlet is beneficially used by placing material in the near shore zone in support of the adjacent Federal beachfill project.

Division: North Atlantic District: Philadelphia Project Name: Manasquan River, New Jersey

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Mansfield Hollow Lake, Connecticut

AUTHORIZATION: Authorized by the Flood Control Act of 1941.

LOCATION AND DESCRIPTION: Mansfield Hollow Lake is located along the Natchaug River, about 5.3 miles upstream from its confluence with the Willimantic River. The project is located in the Towns of Windham and Chaplin, Connecticut. Mansfield Hollow Lake is part of a comprehensive system of flood control projects designed to protect life and property within the Thames River Basin. The project consists of an earth-filled dam with stone slope protection, 14,050 feet long and a maximum height of 68 feet; 6 earth-filled dikes with a total length of 2,656 feet and a maximum height of 53 feet; an uncontrolled ogee weir spillway, 690 feet wide with a maximum discharge capacity of 106,600 cubic feet per second; and 5 rectangular outlet conduits with 26 control gates. The reservoir provides a flood storage capacity of 52,000 acre-feet to control runoff from its net drainage area of 159 square miles. Construction of the dam and appurtenant structures was initiated in 1949 and completed in May 1952.

RECOVERY ACT ALLOCATIONS TO DATE: \$744,394

CONFERENCE FOR FY 2011: TBD

ALLOCATION FOR FY 2011: \$699,000

BUDGET FOR FY 2012: M: \$205,000 O: \$467,000 T: \$672,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$565,000 – Funding provides for routine essential operation and maintenance activities necessary to protect downstream life and property during flooding events, and to preserve project infrastructure. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintaining service contracts for snow and debris removal, and vegetation control along dam slopes. Project has prevented an estimated \$93.8 million in flood damages since placed in service in 1952.

Rec: \$66,000 – Funding provides for routine operation and maintenance activities necessary to support the recreational facilities at the project. The project provides recreation opportunities to an average of 294,000 visitors each year.

Hydro: N/A

ES: \$41,000 – Funding provides for routine operation and maintenance activities necessary to maintain the environmental integrity of project lands. The project consists of 2,470 fee owned acres of land.

WS: N/A

OTHER INFORMATION: Mansfield Hollow Dam was assigned a Dam Safety Assurance Classification (DSAC) rating of II in 2005. The principle issue is seepage. The rating of II is defined as Urgent (Unsafe or Potentially Unsafe). Dam Safety Construction funds are currently being used to evaluate the seepage problem at the Dam. Dikes A and B at Mansfield Hollow Dam were assigned DSAC ratings of III in November 2009. The principle issue for the dikes is seepage. The rating of III is defined as High Priority (Conditionally Unsafe).

Division: North Atlantic

District: New England

Project Name: Mansfield Hollow Lake, CT

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: New Bedford Hurricane Barrier, Massachusetts

AUTHORIZATION: Authorized by the Flood Control Act of 1958.

LOCATION AND DESCRIPTION: The New Bedford Hurricane Barrier is located in Buzzards Bay in southeastern Massachusetts, along the north shore of Clark Cove and at the mouth of New Bedford Harbor. The project is located in the Cities of New Bedford and Fairhaven, Massachusetts. The project consists of an earth-filled dike, which extends 4,500 feet across New Bedford and Fairhaven Harbor in the vicinity of Palmer Island, with a 150-foot wide gate opening to accommodate navigation. The project also includes an earth-filled dike extension, 3,600 feet long, which protects the western waterfront, as well as 5,800 feet of earth dike to protect Clark Cove and 3,100 feet of earth dike to protect Fairhaven. Project construction was completed in January 1966. The project is operated and maintained by the City of New Bedford, with the exception of the navigation gate, which is operated and maintained by the Corps of Engineers.

RECOVERY ACT ALLOCATIONS TO DATE: \$1,672,972

CONFERENCE FOR FY 2011: TBD

ALLOCATION FOR FY 2011: \$1,250,000

BUDGET FOR FY 2012: M: \$231,000 O: \$215,000 T: \$446,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$446,000 – Funding provides for routine essential operation and maintenance activities necessary to operate the gates and protect life and property in downtown New Bedford and Fairhaven during coastal flooding events, and to preserve project infrastructure. Activities include data collection, environmental compliance, project inspections and patrols, and gate operation. Project has prevented an estimated \$22.6 million in flood damages since placed in service in 1966.

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: New York and New Jersey Channels, NY

AUTHORIZATION: Rivers and Harbors Act of 1922; then modified in 1933, 1935, 1950, 1965 and 1985

LOCATION AND DESCRIPTION: A channel 37 ft. deep, in rock and 35 ft. deep in soft material, of various widths from 500 feet to 1000 feet wide through Lower New York Bay, Raritan Bay and Arthur Kill and protected by a dike on its northern side to the junction of the channel into Newark Bay; under the Kill Van Kull Newark Bay Channel, New York and New Jersey authorized for deepening to 45 feet (47 feet in rock) and various widths in the vicinity of Shooter Island and junction with Newark Bay through the Kill Van Kull to Constable Hook; through Kill Van Kull to Upper New York Bay with suitable easing of the bends and junctions. Length – about 31.0 miles; two anchorages 38 ft. deep in the vicinity of Sandy Hook and the other south of Perth Amboy; two secondary channels 30 ft. deep and 400 ft. wide, one south of Shooters Island and the other in Raritan Bay connecting with Raritan River, have been completed under previous projects and are maintained under the project.

Local cooperation. A local cooperation agreement was signed on 30 May 1986 with the Port Authority of New York and New Jersey for the Kill Van Kull, Newark Bay deepening project.

RECOVERY ACT ALLOCATIONS TO DATE: \$3,827,981

CONFERENCE AMOUNT FOR FY2011: TBD

ALLOCATION FOR FY 2011: \$6,150,000

BUDGET FOR FY2012: M: \$40,000 **O:** \$0 **T:** \$40,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$40,000 Funds provide for controlling depth reports and communication of dredging status and project information concerning sampling and testing in this pre-dredge year. Failure to continue the project means more vessel calls will be required to handle the cargo volume passing through the Pt of NY and NJ and greater potential navigational safety. This is an extension of E&D in FY11 for dredging most critical shoals in Arthur Kill Reach and Seguine Point/Ward Point in FY13.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION:

Division: North Atlantic

District: New York

Project Name: NY&NJ Channels, NY

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: New York Harbor, NY

AUTHORIZATION: R&H Act in 1884, 1910, 1917, 1930, 1935, 1937, 1958, 1965, 1984

LOCATION AND DESCRIPTION: The Historic Area Remediation Site (HARS) is an ocean placement site approximately 16 square nautical miles in area, located in the Atlantic Ocean. This project also includes maintenance of the Main entrance channels and major anchorages in the Port of NY&NJ. Main Ship Channel, 30 ft. deep, 1,000 ft. wide, extending from Bayside Channel to deep water in the Lower Bay off West Bank Light.

RECOVERY ACT ALOCATIONS TO DATE: \$1,368,575

CONFERENCE AMOUNT FOR FY2011: TBD

ALLOCATION FOR FY 2011: \$3,796,000

BUDGET FOR FY2012: M: \$6,558,000 O: \$0 T: \$6,558,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$6,558,000

Funds will be used for management and monitoring of the only long-term disposal site available for Federal and private NY dredging projects, as well as technical studies needed for continued use of the site; Maintenance dredging for Red Hook Anchorage and Main Ship Channel.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION:

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: New York Harbor, NY & NJ (Drift Removal)

AUTHORIZATION: R&H Act of 1915, modified in 1917, 1930, expanded in the WRDA '90.

LOCATION AND DESCRIPTION: New York & New Jersey Harbor-Estuary, including adjacent and tributary waters, and Long Island Sound. Drift collection vessels are used on a daily basis (one vessel works on each weekend day) to collect large floating drift that is a threat to the many deep-draft cargo carriers and petroleum tankers, as well as the growing number of high-speed passenger commuter ferries, cruise ships and recreational vessels. Consistent with WRDA 1990, floatables expanded project authorization; floatables especially those resulting from heavy rain events are simultaneously effectively and efficiently collected with the wooden drift and debris to protect the shoreline and beaches of the harbor-estuary.

RECOVERY ACT ALLOCATIONS TO DATE: \$4,144,407

CONFERENCE AMOUNT FOR FY2011: TBD

ALLOCATION FOR FY 2011: \$7,200,000

BUDGET FOR FY2012: M: \$9,200,000 **O:** \$0 **T:** \$9,200,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY_2012:

N: \$9,200,000

Funds will be used to operate and manage the drift collection mission. Drift collection vessels are used on a daily basis (one vessel works on each weekend day) to collect large floating drift that is a threat to the many deep-draft cargo carriers and petroleum tankers, as well as the growing number of high-speed passenger commuter ferries, cruise ships and recreational vessels. Removal of over 500,000 cubic feet of drift and floatables results in the avoidance of approximately \$25,000,000 of damages annually to the many cargo vessels, tankers, barges, passenger commuter ferries, cruise ships, and recreational vessels. Consistent with the authorization in WRDA '90, floatables are collected so they do not escape the harbor and pollute the New Jersey and New York bathing beaches.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION:

Division: North Atlantic District: New York Project Name: New York Harbor, NY & NJ (Drift Removal)

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: New York Harbor, NY (Prevention of Obstructive Deposits)

AUTHORIZATION: Harbor Supervision Act (June 29, 1888) (33 U.S.C. 441-453)

LOCATION AND DESCRIPTION: New York & New Jersey Harbor-Estuary, including adjacent and tributary waters, and Long Island Sound. This continuing maintenance project under the enforcement and compliance authority provided to the District Engineer as the Supervisor of the Harbor (33 U.S.C. 451b) involves the detection, investigation, and prevention of hazards and obstructions to navigation, including failing piers and bulkheads which are the key source of drift and debris. This project provides for investigating deteriorating structures so that the responsible owner can be found and made to eliminate the hazard, or potential hazard, to safe navigation before it becomes a Federal cost. The U.S. Attorney's Office of the Department of Justice brings cases in Federal Court when needed to have the responsible party correct and remove the hazard.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

CONFERENCE AMOUNT FOR FY2011: TBD

ALLOCATION FOR FY 2011: \$1,045,000

BUDGET FOR FY2012: M: \$0 **O:** \$1,100,000 **T:** \$1,100,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY_2012:

N: \$1,100,000

Funds will be used to implement inspections, investigations and enforcement actions involving hazards and obstructions to navigation. This reduces overall Federal cost and avoids serious jeopardy to the large volume of commercial and recreational vessel traffic in New York and New Jersey Harbor and its associated channels.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION:

Division: North Atlantic District: New York Project Name: New York Harbor, NY
(Prevention of Obstructive Deposits)

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Newark Bay, Hackensack and Passaic Rivers, NJ

AUTHORIZATION: Adopted 1922, modified 1943, 1954, 1964, 1966, 1975 and 1985.

LOCATION AND DESCRIPTION: Newark Bay is an estuary about 1.25 miles wide and 6 miles long extending southerly from the confluence of the Hackensack and Passaic Rivers to the New York and New Jersey channels. Newark Bay contains the Port Newark/Elizabeth Marine terminal operated by the Port Authority of NY & NJ. The subject of this fact sheet is the 40 and 45 foot depth projects within the Newark Bay, primarily the port channels. The channels authorized to a 40 Ft. depth of the federal project are Port Newark (PN) channel, the Port Newark Pierhead (PNPH) channel and a section of Main channel. The Elizabeth channel is authorized to a depth of 45 deep.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

CONFERENCE AMOUNT FOR FY2011: TBD

ALLOCATION FOR FY 2011: \$100,000

BUDGET FOR FY2012: M: \$60,000 O: \$0 T: \$60,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY_2012:

N: \$60,000

Funds will be used for caretaker activities to monitor channel conditions, publish controlling depth reports and attend environmental matters coordination meetings with EPA and other stakeholders. Future work would be for maintenance dredging of critical shoals in Port Channels (40 ft. depth), NJ.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION:

Division: North Atlantic

District: New York

Project Name: Newark Bay, Hackensack & Passaic Rivers, NJ

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Newtown Creek, NY

AUTHORIZATION: Approved by Rivers and Harbors Act 1919, modified in 1930 and 1937.

LOCATION AND DESCRIPTION: Newtown Creek, NY is located between Brooklyn and Queens, NY, east of the East River and extending approx. 2.5 miles to Maspeth Creek and English Kills. It is 23 feet deep and approx. 150 feet wide. A NYCDEP wastewater treatment plant is located along the river as well as many other businesses.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

CONFERENCE AMOUNT FOR FY2011: \$60,000

BUDGET FOR FY2012: M: \$60,000 **O:** \$0 **T:** \$60,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY_2012:

N: \$60,000

CARETAKER: Perform controlling depth report. Increased area environmental degradation and danger to life safety. High use channel transporting 1.1 million tons annually, predominantly of heating oil and sand/gravel. Environmental coordination with stakeholders, including NYC DEP whose environmental program proposes future channel dredging and economic development, and the USEPA concerning new project status as Superfund site.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION:

Division: North Atlantic

District: New York

Project Name: Newtown Creek, NY

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Norfolk Harbor, VA

AUTHORIZATION: Norfolk Harbor was authorized by the 1876 River and Harbor Act, and modified by numerous River and Harbor Acts through the 1986 WRDA. The Craney Island Dredged Material Management Area was authorized by the River and Harbor Act of 1946.

LOCATION AND DESCRIPTION: Norfolk Harbor includes the deep draft channels in the Elizabeth River, Hampton Roads, and the lower Chesapeake Bay. The Craney Island Dredged Material Management Area was constructed on 2,500 acres of river bottom in the James River adjacent to the city of Portsmouth, Virginia. Craney Island is the primary dredged material placement area for the construction and maintenance of navigation channels in the Hampton Roads port complex. Craney Island provides essential dredged material placement capacity for the Federal navigation channels, U.S. Navy facilities, Virginia Port Authority facilities, and various other commercial port facilities.

RECOVERY ACT ALLOCATIONS TO DATE: \$13,682,559

CONFERENCE AMOUNT FOR FY 2011: TBD

ALLOCATION FOR FY 2011: \$9,766,000

BUDGET FOR FY 2012: M: \$10,524,000 O: \$526,000 T: \$11,050,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$11,050,000 – Funds will be used to dredge the outbound lane of Norfolk Harbor Reach and Craney Island Reach to pay depths as deep as -53 ft mllw. Funds will also be used to dredge portions of the inbound and outbound lane of Norfolk Harbor Reach and Craney Island Reach and to provide critical dike raising and maintenance for Norfolk Harbor dredging, including DOD Strategic port, USN facilities, Federal Navigation channel and commercial ports. Approximately 7 condition surveys of NHC project elements. Detect shoaling, report accurate, up-to-date conditions to customers, help plan for future maintenance dredging.

FRM: \$ N/A

Rec: \$ N/A

Hydro: \$ N/A

ES: \$ N/A

WS: \$ N/A

OTHER INFORMATION: A portion of the cost to maintain the Craney Island Dredged Material Management Area is recovered by a system of toll charges for the use of the facility. A toll of \$6.81 per cubic yard is collected to use the Craney Island Rehandling Basin, of which \$1.38 is given to the Treasury. For direct placement of material, a toll of \$1.38 per cubic yard is collected, all of which is given to the Treasury. Maintenance of Norfolk Harbor, VA includes each of the channel segments deepened to a 50-ft. project depth as a result of the WRDA 1986 authorization: Norfolk Harbor Channel, Channel to Newport News, Thimble Shoal Channel, and the Atlantic Ocean Channel outside the mouth of the Chesapeake Bay.

Division: North Atlantic District: Norfolk

Project Name: Norfolk Harbor, VA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: North Hartland Lake, Vermont

AUTHORIZATION: Authorized by the Flood Control Acts of 1938 and 1941.

LOCATION AND DESCRIPTION: North Hartland Lake is located along the Ottauquechee River, about 1.5 miles above its junction with Connecticut River, and one-mile northwest of North Hartland, Vermont. North Hartland Lake is operated as part of a comprehensive system of flood control projects designed to protect life and property within the Connecticut River Basin. The project consists of an earth and rock-filled dam with rock slope protection, 1,640 feet long with a maximum height of 185 feet; an earth and rock-filled dike 2,110 feet long with a maximum height of 52 feet; an uncontrolled ogee weir spillway, 465 feet wide with a maximum discharge capacity of 160,900 cubic feet per second; a 14.25-foot diameter horseshoe shaped outlet conduit with 4 control gates through the dam; and a 36-inch diameter outlet conduit with a control gate through the dike. The reservoir provides a flood storage capacity of 74,150 acre-feet to control runoff from its net drainage area of 220 square miles. Construction of the dam and appurtenant structures was initiated in June 1958 and completed in June 1961.

RECOVERY ACT ALLOCATIONS TO DATE: \$218,716

CONFERENCE FOR FY 2011: TBD

ALLOCATION FOR FY 2011: \$719,000

BUDGET FOR FY 2012: M: \$294,000 O: \$454,000 T: \$748,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$560,000 – Funding provides for routine essential operation and maintenance activities necessary to protect downstream life and property during flooding events, and to preserve project infrastructure. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintaining service contracts for snow and debris removal, and vegetation control along dam slopes. Project has prevented an estimated \$113.3 million in flood damages since placed in service in 1961.

Rec: \$126,000 – Funding provides for routine operation and maintenance activities necessary to support the recreational facilities at the project. Also includes funds for the challenge cost share agreement for the visitor center. The project provides recreation opportunities to an average of 199,000 visitors each year.

Hydro: N/A

ES: \$62,000 – Funding provides for routine operation and maintenance activities necessary to maintain the environmental integrity of project lands. Also includes an inventory of the vegetative cover of the project lands. The project consists of 1,464 fee owned acres of land.

WS: N/A

OTHER INFORMATION: North Hartland Dam was assigned a Dam Safety Assurance Classification (DSAC) rating of III in September 2009. The principle issues are seepage and seismic. The rating of III is defined as High Priority (Conditionally Unsafe).

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: North Springfield Lake, Vermont

AUTHORIZATION: Authorized by the Flood Control Acts of 1938 and 1941.

LOCATION AND DESCRIPTION: North Springfield Lake is located in the Town of Springfield, Vermont, along the Black River, about 8.7 miles above its junction with the Connecticut River. North Springfield Lake is operated as part of a comprehensive system of flood control projects designed to protect life and property within the Connecticut River Basin. The project consists of two earth and rock-filled dams with rock slope protection. The Main Dam is 2,940 feet long with a maximum height of 120 feet, and the North Branch Dam is 900 feet long with a maximum height of 75 feet. The Main Dam has an uncontrolled side channel spillway with an ogee weir, 384 feet wide with a maximum discharge capacity of 117,200 cubic feet per second, and a 12.75-foot diameter horseshoe shaped outlet conduit with 3 control gates. The North Branch Dam has an uncontrolled broad crested spillway weir, 200 feet wide with a maximum discharge capacity of 1,600 cubic feet per second, and an 8-inch diameter outlet conduit. The reservoir provides a flood storage capacity of 51,100 acre-feet to control runoff from its net drainage area of 158 square miles. Construction of the dam and appurtenant structures was initiated in May 1958 and completed in November 1960.

RECOVERY ACT ALLOCATIONS TO DATE: \$114,691

CONFERENCE FOR FY 2011: TBD

ALLOCATION FOR FY 2011: \$838,000

BUDGET FOR FY 2012: M: \$236,000 O: \$705,000 T: \$941,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$808,000 – Funding provides for routine essential operation and maintenance activities necessary to protect downstream life and property during flooding events, and to preserve project infrastructure. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintaining service contracts for snow and debris removal, and vegetation control along dam slopes. Also included is the required five year cycle Periodic Inspection of the project and inspection of one public use bridge located on project lands. Project has prevented an estimated \$110.8 million in flood damages since placed in service in 1960.

Rec: \$76,000 – Funding provides for routine operation and maintenance activities necessary to support the recreational facilities at the project. The project provides recreation opportunities to an average of 34,000 visitors each year.

Hydro: N/A

ES: \$57,000 – Funding provides for routine operation and maintenance activities necessary to maintain the environmental integrity of project lands. Also included is an inventory of the vegetative cover of the project lands. The project consists of 1,361 fee owned acres of land.

WS: N/A

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Northfield Brook Lake, Connecticut

AUTHORIZATION: Authorized by the Flood Control Act of 1960.

LOCATION AND DESCRIPTION: Northfield Brook Lake is located along Northfield Brook, about 1.3 miles upstream from its confluence with the Naugatuck River. The project is located in the Town of Thomaston, Connecticut. Northfield Brook Lake is part of a comprehensive system of flood control projects designed to protect life and property within the Housatonic River Basin. The project consists of an earth-filled dam with an impervious core and stone slope protection, 810 feet long and a maximum height of 118 feet; an uncontrolled ogee weir spillway, 72 feet wide with a maximum discharge capacity of 8,800 cubic feet per second; and a 3-foot diameter outlet conduit with a control gate. The reservoir provides a flood storage capacity of 2,430 acre-feet to control runoff from its net drainage area of 5.7 square miles. Construction of the dam and appurtenant structures was initiated in May 1963 and completed in October 1965. Construction of recreational facilities were initiated in November 1966 and completed in August 1967.

RECOVERY ACT ALLOCATIONS TO DATE: \$74,603

CONFERENCE FOR FY 2011: TBD

ALLOCATION FOR FY 2011: \$559,000

BUDGET FOR FY 2012: M: \$62,000 O: \$375,000 T: \$437,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$288,000 – Funding provides for routine essential operation and maintenance activities necessary to protect downstream life and property during flooding events, and to preserve project infrastructure. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintaining service contracts for snow and debris removal, and vegetation control along dam slopes. Project has prevented an estimated \$43.6 million in flood damages since placed in service in 1965.

Rec: \$103,000 – Funding provides for routine operation and maintenance activities necessary to support the recreational facilities at the project. The project provides recreation opportunities to an average of 61,000 visitors each year.

Hydro: N/A

ES: \$46,000 – Funding provides for routine operation and maintenance activities necessary to maintain the environmental integrity of project lands. The project consists of 208 fee owned acres of land.

WS: N/A

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Otter Brook Lake, New Hampshire

AUTHORIZATION: Authorized by the Flood Control Act of 1954.

LOCATION AND DESCRIPTION: Otter Brook Lake is located along Otter Brook, about 4.9 miles upstream from its junction with the Ashuelot River. The project is located in the Town of Keene, New Hampshire. Otter Brook Lake is operated as part of a comprehensive system of flood control projects designed to protect life and property within the Connecticut River Basin. The project consists of an earth-filled dam with an impervious core and rock slope protection, 1,288 feet long with a maximum height of 133 feet; an uncontrolled ogee weir spillway, 145 feet wide with a maximum discharge capacity of 40,000 cubic feet per second; and a 6-foot diameter horseshoe-shaped outlet conduit with 3 control gates. The reservoir provides a flood storage capacity of 18,320 acre-feet to control runoff from its net drainage area of 47.2 square miles. Construction of the dam and appurtenant structures was initiated in September 1956 and completed in August 1958. Major rehabilitation of the dam involving construction of a new concrete spillway weir using mechanical fuseplugs was completed in June 2006.

RECOVERY ACT ALLOCATIONS TO DATE: \$998,751

CONFERENCE FOR FY 2011: TBD

ALLOCATION FOR FY 2011: \$730,000

BUDGET FOR FY 2012: M: \$224,000 O: \$429,000 T: \$653,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$516,000 – Funding provides for routine essential operation and maintenance activities necessary to protect downstream life and property during flooding events, and to preserve project infrastructure. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintaining service contracts for snow and debris removal, and vegetation control along dam slopes. Project has prevented an estimated \$39.9 million in flood damages since placed in service in 1958.

Rec: \$96,000 – Funding provides for routine operation and maintenance activities necessary to support the recreational facilities at the project. The project provides recreation opportunities to an average of 55,000 visitors each year.

Hydro: N/A

ES: \$41,000 – Funding provides for routine operation and maintenance activities necessary to maintain the environmental integrity of project lands. Also included is an inventory of the vegetative cover of the project lands. The project consists of 458 fee owned acres of land.

WS: N/A

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Passaic River Flood Warning Systems, NJ

AUTHORIZATION: The Water Resources Development Act of 1976 authorized the study of the Passaic flooding problem. The Water Resources Development Act of 1990 authorized the recurring operational and maintenance costs for the computerized flood warning system.

LOCATION AND DESCRIPTION: Passaic Basin, Northern New Jersey. The Basin has a history of significant chronic flooding. The system provides critical rain and stream gage information for weather forecasts and warnings; immediate information access by first responders for mitigation action; a network to receive instantaneous watches/warnings; and a forum of quarterly meetings for multi-agency coordination. The system integrates information flow and flood mitigation activities for multi-level response from federal, state, and local agencies, including five New Jersey counties and 12 high-risk municipalities.

RECOVERY ACT ALLOCATIONS TO DATE: \$171,564

CONFERENCE AMOUNT FOR FY2011: TBD

ALLOCATION FOR FY 2011: \$570,000

BUDGET FOR FY2012: M: \$0 O: \$570,000 T: \$570,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY_2012:

N: N/A

FRM: \$570,000

Funds will be used to maintain existing stream and rain gauges to ensure they are fully functional and reporting accurate data to local Offices. Funds will also be used to repair or replace damaged equipment as required and to provide user training and coordination. The efforts are important to provide accurate and timely reports and affect intergovernmental coordination and emergency planning. The net result is a reduced threat to life and property in the event of serious flooding.

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION:

Division: North Atlantic

District: New York

Project Name: Passaic River Flood
Warning Systems, NJ

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Portsmouth Harbor and Piscataqua River, New Hampshire and Maine
(Portsmouth Back Channels and Sagamore Creek)

AUTHORIZATION: Originally adopted in 1879 and subsequently modified by the Rivers and Harbors Acts of 1890, 1954 and 1962. Widening of the project was authorized under Section 202 of the Water Resources Development Act of 1986.

LOCATION AND DESCRIPTION: Portsmouth Harbor is located at the mouth of the Piscataqua River along the state boundary between Maine and New Hampshire. The harbor lies about 45 miles northeast of Boston Harbor, Massachusetts and 37 miles southwest of Portland Harbor, Maine. The project provides for about 6 miles of tidewater channel, 35 feet deep and 400 to 1,000 feet wide, extending from deep water at the entrance of the harbor up the Piscataqua River. Maintenance dredging of the 35-foot channel near the former Simplex Wire and Cable Company, referred to as the "Simplex Shoal", is required every 5 to 7 years and typically involves a small quantity of clean sand and gravel. The Simplex Shoal area was last maintained during November 2000. About 7,900 cubic yards of coarse-grained material was removed and placed in a deep area of the river about 3,000 feet downstream of the shoal.

The Sagamore Creek Project provided for a 6-foot channel beginning at the mouth of Sagamore Creek and extending 0.9 miles upstream to the public landing at Sagamore Avenue in Rye. The Portsmouth Back Channels consist of a 6-foot channel, 0.4 mile long channel located between the Route 1B Bridge and the mouth of Sagamore Creek, and a 6-foot channel extending 0.7 miles from the mouth of Sagamore Creek to the bridge connecting Shapleigh Island and Goat Island in Portsmouth. Maintenance would involve dredging approximately 7,000 cubic yards of material with placement in a sub-tidal feeder bar to replenish the beach at Wallis Sands State Park in Rye. Sagamore Creek has not been maintained since constructed in 1971.

RECOVERY ACT ALLOCATIONS TO DATE: \$0
CONFERENCE AMOUNT FOR FY 2011: TBD
ALLOCATION FOR FY 2011: \$0
BUDGET FOR FY 2012: M: \$500,000 O: \$0 T: \$500,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$500,000 – Funds will be combined with planned carryover funds to perform maintenance dredging in the area of the Simplex Shoal.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: In 2008, waterborne commerce totaled 3.8 million tons.

Division: North Atlantic

District: New England

Project Name: Portsmouth Harbor and
Piscataqua River, NH & ME

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Potomac and Anacostia Rivers, DC (Drift Removal)

AUTHORIZATION: River and Harbor Act of 27 October 1965, 89th Congress.

LOCATION AND DESCRIPTION: System Code 0207- Potomac and Anacostia Removal of Drift Project is located within Washington, DC, Prince Georges County, Maryland and Fairfax County, Virginia. The collection and removal effort is a year round effort and consists of performing routine patrols throughout the harbor and also responding to emergency calls from Coast Guard and Navy activities, state and local government activities, and commercial business concerns for the removal of drift material deemed hazardous to the safe navigation of both commercial and recreational marine vessels.

RECOVERY ACT ALLOCATIONS TO DATE: \$82,970

CONFERENCE AMOUNT FOR FY2011: \$845,000

BUDGET FOR FY2012: M: \$875,000 **O:** \$0 **T:** \$875,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$875,000 - Funding will provide drift and debris collection and removal of the project.

FRM: \$0 - NA

Rec: \$0 - NA

Hydro: \$0 - NA

ES: \$0 - NA

WS: \$0- NA

OTHER INFORMATION: Congressional Interest: Congressmen James P. Moran (VA-8), Frank R. Wolf (VA-10), Donna F. Edwards (MD-4), Chris Van Hollen (MD-8), Delegate Eleanor Holmes Norton (DC), Senators Barbara A. Mikulski (MD), Benjamin L. Cardin (MD), Jim Webb (VA), Mark R. Warner (VA)

Division: North Atlantic District: Baltimore Project Name: Potomac and Anacostia Rivers, DC
(Drift Removal)

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Prompton Lake, Pennsylvania

AUTHORIZATION: This project was authorized via HD 80-113, 80th Congress (1948), modified by HD 87-522 (1962)

LOCATION AND DESCRIPTION: The project is located on Lackawaxen River within the Borough limits of Prompton, PA, four miles upstream from Honesdale, PA; approximately 30 miles above the confluence of the Lackawaxen and Delaware Rivers. Project purposes are flood control, water supply and recreation. The project consists of a flood control earth and rock filled dam, 140 feet high and 1,226 feet long on the crest. The reservoir has a capacity of 20,300 acre-feet for flood control, 28,000 acre feet of excess storage with a conservation pool of 3400 acre-feet capacity. The project also includes recreational public use facilities maintained by the Corps include access roads, parking lot, sanitary facilities, boat launch, a hiking/nature trail and provision for boating (10 H.P. limit) and fishing.

RECOVERY ACT ALLOCATIONS TO DATE: \$364,300

CONFERENCE FOR FY 2011: TBD

ALLOCATION FOR FY 2011: \$506,000

BUDGET FOR FY 2012: M: \$25,000 O: \$598,000 T: \$623,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS:

NAV: N/A

FRM: \$595,000 will be used for routine operations & maintenance which includes the operation buildings, the dam and related structures, grounds & equipment, management of public-use areas such as access roads, parking lots. Other specific work includes real estate (NAB), continuing evaluation gathering &, dam safety, water-control and water-quality analysis. Other specific work includes real estate, continuing evaluation gathering, dam safety efforts.

REC: \$0 N/A

HYDRO: \$0 N/A.

ES: \$28,000 will be used to accomplish basic and essential stewardship functions at the project. This includes the maintenance and monitoring of sustainable land, improving fee owned land from degraded to transitioning status, prevention of the introduction of invasive plant species to numerous tracts of land, and continuation of good stewardship practices. All funding will be expended at the project level.

WS: \$0 N/A.

OTHER INFORMATION: The project received a Dam Safety Action Classification (DSAC) III Rating in 2005. FY06 Construction General (CG) Funds were used for construction of Phase I of modifications to the dam. These modifications were done to protect the structure and downstream communities from the effects of the estimated Probable Maximum Flood (based on revised criterion since initial construction). Phase I work in the spillway and outlet works was completed in July 2007 and the construction of a crest wall across the top of dam was completed in the spring of 2008. Phase II of modifications to the project are under construction using CG American Recovery and Reinvestment Act funds with an estimated completion date of September 2011. The scope of work for construction of Phase II modifications includes spillway modifications (spillway widening, MSE wall, cut-off wall, control sill, soil nail wall, spillway erosion issues, etc), completion of an access road and bridge over the new spillway and construction of a new Operations building.

Division: North Atlantic District: Philadelphia Project Name: Prompton Lake, Pennsylvania

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Raritan River, NJ

AUTHORIZATION: Authorized by the Rivers and Harbors Act of 1919 and subsequently modified by the Rivers and Harbors Acts of 1930, 1937 and 1940.

LOCATION AND DESCRIPTION: Raritan River is located about 24 miles by water south of the Battery, New York City. It joins both Lower Raritan Bay and New York & New Jersey Channels. The existing navigation project provides for a main channel and 25 feet depth. The length is about 13.8 miles.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

CONFERENCE AMOUNT FOR FY2011: TBD

ALLOCATION FOR FY 2011: : \$80,000

BUDGET FOR FY2012: M: \$60,000 O: \$0 T: \$60,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$60,000

CARETAKER: Controlling Depth Report and condition status communication to stakeholders. Previous maintenance dredging temporarily restored navigational safety to petroleum company users concerning delivery of the 11 million barrels annually of petroleum product. A total of 11M barrels of petroleum and 3,000,000 tons of commerce are carried by this waterway. The Raritan River waterfront is undergoing revitalization efforts by the county. Risk of oil spills increases if channel is not maintained. Deep draft.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION:

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Raritan River to Arthur Kill Cut-Off, NJ

AUTHORIZATION: The Federal navigation project for Raritan River to Arthur Kill Cut-Off Channel, New Jersey was adopted in 1935.

LOCATION AND DESCRIPTION: Project is located in Raritan Bay at the southern tip of Staten Island, NY and Perth Amboy, NJ. The project is located in a busy deep draft commercial harbor and port. The project connects the Raritan River channel with the southern end of the NY&NJ channel. The project provides for a channel 20 feet deep and 800 feet wide approximately 1 mile in length.

RECOVERY ACT ALLOCATIONS T DATE: \$0

CONFERENCE AMOUNT FOR FY2011: TBD

ALLOCATION FOR FY 2011: \$100,000

BUDGET FOR FY2012: M: \$65,000 **O:** \$0 **T:** \$65,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY_2012:

N: \$65,000

Funds will be used preliminary engineering and design for the next cycle of maintenance dredging including testing material for acceptability at ocean disposal site.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION:

Division: North Atlantic

District: New York

Project Name: Raritan River to Arthur Kill
Cut-Off Channel, NJ

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Raystown Lake, PA

AUTHORIZATION: Flood Control Act of 23 October 1962 (PL 87-874) and described in House Document 565, 87th Congress, 2nd Session.

LOCATION AND DESCRIPTION: System Code 0205- Raystown Lake is located on the Raystown Branch about 5.5 miles upstream from its confluence with the Juniata River. The dam is an earth and rockfill structure with a maximum height of 225 feet and a top length of 1,700 feet. There is a two-bay gated spillway with two tainter gates, 45 feet wide by 45 feet high, to control flood flows. The overflow section is cut through rock at elevation 812 m.s.l., and has crest length of 1,630 feet in the spur of Terrace Mountain. At the overflow section crest, the reservoir will extend 34 miles to the vicinity of Saxton and inundate 10,800 acres. The recreation lake is 27 miles long and inundates 8,300 acres. The project encompasses 29,700 total acres. The flood control storage available above the elevation of the recreation lake is 248,000 acre-feet. Continental Cooperative Services, of Harrisburg, Pennsylvania constructed a 20 megawatt conventional hydropower facility which uses scheduled water releases from Raystown Dam to produce an average annual output of 77 million kilowatt hours, or enough to supply approximately 7,700 typical rural homes. The U.S. Army Corps of Engineers operates and maintains 12 public access areas. Additionally, there are four recreation real estate concession leases.

RECOVERY ACT ALLOCATIONS TO DATE: \$4,211,359

CONFERENCE AMOUNT FOR FY2011: TBD

ALLOCATION FOR FY 2011: \$3,752,000

BUDGET FOR FY2012: M: \$1,295,000 O: \$3,212,000 T: \$4,507,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$0 - NA

FRM: \$1,750,000 - Funding will provide for Flood Risk Management operation and maintenance costs for project, which includes salaries for on-site staff, utilities, supplies, critical stream gages and contracts.

Rec: \$2,028,000 - Funding will provide for operation and maintenance of recreation facilities and services, which includes salaries for permanent and seasonal staff, utilities, supplies an contracts.

Hydro: \$0 - NA

ES: \$729,000 - Funding will provide natural resources protection and conseravtion, eco-system management and meet responsibilities for safety and compliance with natural resources laws and regulations.

WS: \$0 - NA

OTHER INFORMATION: Congressional Interest: Congressman William Shuster (PA-9), Senators Robert P. Casey, Jr. (PA), Patrick J. Toomey (PA)

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Schuylkill River, Pennsylvania

AUTHORIZATION: This project was authorized 8 August 1917 (HD 1270, 64th Cong., 1st Session) and modified 3 July 1930 (R&H Com Doc 40, 71st Cong., 2nd Session) and 24 July 1946 (HD 699, 79th Cong., 2nd Session). An additional modification was authorized on 25 September 1996 of the Congressional Record H11176 Sec. 344.

LOCATION AND DESCRIPTION: The project extends from the confluence of the Delaware River and Schuylkill River upstream, a length of 6.5 miles to the University Avenue Bridge and the Fairmount pool between Fairmount Dam and the Columbia Bridge. A 33', 26' and 22' draft navigation channels

RECOVERY ACT ALLOCATIONS TO DATE: \$0

CONFERENCE FOR FY 2011: TBD

ALLOCATION FOR FY 2011: \$250,000

BUDGET FOR FY 2012: M: \$0 O: \$250,000 T: \$250,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS:

NAV: Funds will be used for condition surveys, and to monitor the project

FRM: \$0 N/A.

REC: \$0 N/A.

HYDRO: \$0 N/A.

ES: \$0 N/A.

WS: \$0 N/A.

OTHER INFORMATION: This is a deep draft project, which provides safe navigation for large vessels that provide access to a very large petrochemical complex for distribution throughout the United States. The port provides employment in the area. Work packages for adequate maintenance dredging have historically fallen below the funding ceiling. The inability to maintain project depth may result in hazardous navigating conditions, national security issues, commercial/recreational vessel damage, delays in service to the shipping industry, and economic hardships to local residents.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance
1572.

PROJECT NAME: Southern New York Flood Control Projects, NY

AUTHORIZATION: Flood Control Act of 22 June 1936, as amended by the Flood Control Act of 28 June 1938, House Document No. 702, 77th Congress, 2nd Session.

LOCATION AND DESCRIPTION: System Code 0205- These 10 projects are located on a number of tributaries of the North Branch of the Susquehanna River in Oxford, Avoca, Binghamton, Canisteo, Corning, Elmira, Hornell, Lisle, Whitney Point Village and Addison, New York. The Southern New York Local Flood Protection Projects provide for a variety of Federally-constructed channels, levees, floodwalls, check dams and other drainage structures and flood protection treatments. The Federal Government retains responsibility for maintenance of at least some portions of these projects based on the authorizing language. Local interests are responsible for the remaining maintenance.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

CONFERENCE AMOUNT FOR FY2011: TBD

ALLOCATION FOR FY 2011: \$925,000

BUDGET FOR FY2012: M: \$578,000 **O:** \$322,000 **T:** \$900,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$0 - NA

FRM: \$900,000 - Funding will provide for Flood Risk Management operation and maintenance costs for project, which includes salaries for on-site staff, utilities, supplies, critical stream gages and contracts.

Rec: \$0 - NA

Hydro: \$0 - NA

ES: \$0 - NA

WS: \$0 - NA

OTHER INFORMATION: Congressional Interest: Congressmen Richard Hanna (NY-24), Maurice D. Hinchey (NY-22), Thomas Reed (NY-29), Senators Charles E. Schumer (NY), Kirsten E. Gillibrand (NY)

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Stamford Hurricane Barrier, Connecticut

AUTHORIZATION: Authorized by the Flood Control Act of 1960.

LOCATION AND DESCRIPTION: The Stamford Hurricane Barrier is located along the East and West Branches of Stamford Harbor and Westcott Cove in the City of Stamford, Connecticut. The project provides for the construction of the East Branch Barrier, which consists of 2,850 feet of earth-filled dike with rock slope protection, a 90-foot wide gated opening for navigation and a 45,000 gallon per minute pump station to handle interior drainage. The project includes protection along the West Branch of Stamford Harbor, consisting of 1,349 feet of concrete wall, 160 feet of sheet pile bulkhead wall, 2,950 feet of earth-filled dike and a 229,500 gallon per minute pump station. The project also includes protection along Westcott Cove consisting of 4,400 feet of earth-filled dike and two pump stations with a total capacity of 85,500 gallons per minute. Project construction was completed in January 1969. The project is operated and maintained by the City of Stamford, with the exception of the navigation gate, which is operated and maintained by the Corps of Engineers.

RECOVERY ACT ALLOCATIONS TO DATE: \$710,459

CONFERENCE FOR FY 2011: TBD

ALLOCATION FOR FY 2011: \$467,000

BUDGET FOR FY 2012: M: \$116,000 O: \$347,000 T: \$463,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$442,000 – Funding provides for routine essential operation and maintenance activities necessary to operate the gates and protect life and property in downtown Stamford during coastal flooding events, and to preserve project infrastructure. Activities include data collection, environmental compliance, project inspections and patrols, and gate operation. Project has prevented an estimated \$31.3 million in flood damages since placed in service in 1969.

Rec: N/A

Hydro: N/A

ES: \$21,000 – Funding provides for correction of ERGO deficiency per external assessments, including updates to project MSDS books, and to ensure proper training of personnel.

WS: N/A

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Stillwater Lake, PA

AUTHORIZATION: Flood Control Act of 18 August 1941 (Public Law 77-228).

LOCATION AND DESCRIPTION: System Code 0205- Stillwater Lake is located in Susquehanna County on the Lackawanna River four miles north and upstream from Forest City, PA. The dam is an earthfill structure, 1,700 feet long and rises 75 feet above the streambed, with a spillway and gate controlled outlet. The reservoir has a storage capacity of 11,600 acre feet at spillway crest, and controls a drainage area of 36.8 square miles. The project reduces flood heights on the Lackawanna River, downstream of the dam and on the Susquehanna River, downstream from its confluence with the Lackawanna River. Additionally, the Pennsylvania-American Water Company utilizes Stillwater as a source of water supply for the Forest City Water Purification Plant on infrequent occasions. The intake facility is located immediately downstream of the reservoir on the Lackawanna River. The Pennsylvania Fish and Boat Commission operate and maintain a boat launch at the lake under a real estate agreement.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

CONFERENCE AMOUNT FOR FY2011: TBD

ALLOCATION FOR FY 2011: \$363,000

BUDGET FOR FY2012: M: \$142,000 O: \$372,000 T: \$514,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$0 - NA

FRM: \$508,000 - Funding will provide for Flood Risk Management operation and maintenance costs for project, which includes salaries for on-site staff, utilities, supplies, critical stream gages and contracts.

Rec: \$0 - NA

Hydro: \$0 – NA

ES: \$6,000 - Funding will provide natural resources protection and conseravtion, eco-system management and meet responsibilities for safety and compliance with natural resources laws and regulations.

WS: \$0 - NA

OTHER INFORMATION: Congressional Interest: Congressman Thomas A. Marino (PA-10), Senators Robert P. Casey, Jr. (PA), Patrick J. Toomey (PA)

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Surry Mountain Lake, New Hampshire

AUTHORIZATION: Authorized by the Flood Control Acts of 1936 and 1938.

LOCATION AND DESCRIPTION: Surry Mountain Lake is located along the Ashuelot River, about 34.6 miles upstream from its junction with the Connecticut River and 5 miles north of Keene, New Hampshire. The project is located in the Towns of Surry and Gilsum, New Hampshire. Surry Mountain Lake is operated as part of a comprehensive system of flood control projects designed to protect life and property within the Connecticut River Basin. The project consists of an earth-filled dam with an impervious core and rock slope protection, 1,800 feet long with a maximum height of 86 feet; an uncontrolled ogee weir spillway, 338 feet wide with a maximum discharge capacity of 50,000 cubic feet per second; and a 10-foot diameter horseshoe-shaped outlet conduit with 2 control gates. The reservoir provides a flood storage capacity of 33,000 acre-feet to control runoff from its net drainage area of 100 square miles. Construction of the dam and appurtenant structures was initiated in August 1939 and completed in October 1941.

RECOVERY ACT ALLOCATIONS TO DATE: \$56,614

CONFERENCE FOR FY 2011: TBD

ALLOCATION FOR FY 2011: \$746,000

BUDGET FOR FY 2012: M: \$242,000 O: \$493,000 T: \$735,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$586,000 – Funding provides for routine essential operation and maintenance activities necessary to protect downstream life and property during flooding events, and to preserve project infrastructure. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintaining service contracts for snow and debris removal, and vegetation control along dam slopes. Also included is the required inspection of one public use bridge located on project lands. Project has prevented an estimated \$93.6 million in flood damages since placed in service in 1941.

Rec: \$89,000 – Funding provides for routine operation and maintenance activities necessary to support the recreational facilities at the project. The project provides recreation opportunities to an average of 84,000 visitors each year.

Hydro: N/A

ES: \$60,000 – Funding provides for routine operation and maintenance activities necessary to maintain the environmental integrity of project lands. Also included is an inventory of the vegetative cover of project lands, and a dwarf wedge mussel study. The project consists of 1,695 fee owned acres of land.

WS: N/A

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Susquehanna River Above and Below Havre de Grace, MD

AUTHORIZATION: House Document 322, 75th Congress, 1st Session, August 26, 1937; Senate Document 67, 76th Congress, 1st Session, March 2, 1945;

LOCATION AND DESCRIPTION: The Susquehanna River flows generally southward 400 miles to the head of Chesapeake Bay at Havre de Grace, MD, 8 miles north of the entrance to Chesapeake and Delaware Canal, and 45 miles northeast of Baltimore, MD. A channel 200 feet wide an 15 feet deep from that depth in Chesapeake Bay to Havre de Grace, for removal of shoal opposite Garrett Island to a depth of 8 feet, and for maintenance of an existing boat basin 400 feet long, 380 feet wide, and 7 feet deep adjacent to the city park at Havre de Grace and the 75 foot wide approach channel to the same depth.

RECOVERY ACT ALLOCATIONS TO DATE: \$0
CONFERENCE AMOUNT FOR FY2011: TBD
ALLOCATION FOR FY 2011: \$0
BUDGET FOR FY2012: M: \$180,000 O: \$0 T: \$180,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$180,000 – To initiate engineering and design for future maintenance dredging.

FRM: \$0 - NA

Rec: \$0 - NA

Hydro: \$0 - NA

ES: \$0 - NA

WS: \$0 - NA

OTHER INFORMATION: Congressional Interest: Congressmen Andrew P. Harris (MD-1), Dutch Ruppersberger (MD-2), John P. Sarbanes (MD-3), Donna F. Edwards (MD-4), Steny H. Hoyer (MD-5), Elijah E. Cummings (MD-7), Robert J. Wittman (VA-1), Scott Rigell (VA-2), Senators Benjamin L. Cardin (MD), Barbara A. Mikulski (MD)

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Thomaston Dam, Connecticut

AUTHORIZATION: Authorized by the Flood Control Act of 1944.

LOCATION AND DESCRIPTION: Thomaston Dam is located along the Naugatuck River, about 30.4 miles upstream from its confluence with the Housatonic River. The project is located in Thomaston, Litchfield, Harwinton and Plymouth, Connecticut. Thomaston Dam is part of a comprehensive system of flood control projects designed to protect life and property within the Housatonic River Basin. The project consists of an earth-filled dam with an impervious core and stone slope protection, 2,000 feet long and a maximum height of 142 feet; an uncontrolled side channel spillway, 435 feet wide with a maximum discharge capacity of 132,200 cubic feet per second; and a 10-foot diameter horseshoe-shaped outlet conduit with 2 control gates. The reservoir provides a flood storage capacity of 42,000 acre-feet to control runoff from its net drainage area of 97.2 square miles. Construction of the dam and appurtenant structures was initiated in May 1958 and completed in November 1960.

RECOVERY ACT ALLOCATIONS TO DATE: \$152,137

CONFERENCE FOR FY 2011: TBD

ALLOCATION FOR FY 2011: \$994,000

BUDGET FOR FY 2012: M: \$119,000 O: \$720,000 T: \$839,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$670,000 – Funding provides for routine essential operation and maintenance activities necessary to protect downstream life and property during flooding events, and to preserve project infrastructure. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintaining service contracts for snow and debris removal, and vegetation control along dam slopes. Also included is required inspection of one public use bridge located on project lands. Project has prevented an estimated \$469.9 million in flood damages since placed in service in 1960.

Rec: \$89,000 – Funding provides for routine operation and maintenance activities necessary to support the recreational facilities at the project. The project provides recreation opportunities to an average of 179,000 visitors each year.

Hydro: N/A

ES: \$80,000 – Funding provides for routine operation and maintenance activities necessary to maintain the environmental integrity of project lands. The project consists of 849 fee owned acres of land.

WS: N/A

OTHER INFORMATION: Thomaston Dam was assigned a Dam Safety Assurance Classification (DSAC) rating of III in March 2009. The principle issue is seepage. The rating of III is defined as High Priority (Conditionally Unsafe).

Division: North Atlantic

District: New England

Project Name: Thomaston Dam, CT

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Tioga-Hammond Lakes, PA

AUTHORIZATION: Flood Control Act of 3 July 1958, (Public Law 85-500), substantially in accordance with House Document 394, 84th Congress, 2nd Session.

LOCATION AND DESCRIPTION: System Code 0205- The Tioga-Hammond Lakes project is located just upstream of Tioga, Pennsylvania. The Tioga-Hammond Lakes project consists primarily of two separate dams, one on Tioga River, and one on Crooked Creek. Both dams are located approximately two miles upstream of the confluence of the two streams. The lakes are joined by a gated connecting channel in a saddle of the ridge separating the two streams. An uncontrolled spillway in Hammond Dam serves both reservoirs. A gated outlet conduit is provided in the left abutment of Tioga Dam for the control of flows for both reservoirs. Tioga Dam is of earth and rockfill construction, 2,738 feet in length, and has a maximum height of 140 feet above the streambed. Hammond Dam is of earth and rockfill construction, 6,000 feet in length and has a maximum height of 122 feet above the streambed. An additional project feature is the Mansfield local flood protection project which consists of channel improvements, levees, and pumping stations which provide protection to the borough of Mansfield during high water events. The Corps operates and maintains the Ives Run and Lambs Creek recreation areas, as well as two overlooks.

RECOVERY ACT ALLOCATIONS TO DATE: \$1,313,451

CONFERENCE AMOUNT FOR FY2011: TBD

ALLOCATION FOR FY 2011: \$2,384,000

BUDGET FOR FY2012: M: \$543,000 O: \$2,209,000 T: \$2,752,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$0 - NA

FRM: \$1,600,000 - Funding will provide for Flood Risk Management operation and maintenance costs for project, which includes salaries for on-site staff, utilities, supplies, critical stream gages and contracts.

Rec: \$897,000 - Funding will provide for operation and maintenance of recreation facilities and services, which includes salaries for permanent and seasonal staff, utilities, supplies and contracts.

Hydro: \$0 - NA

ES: \$255,000 - Funding will provide natural resources protection and conservation, eco-system management and meet responsibilities for safety and compliance with natural resources laws and regulations.

WS: \$0 - NA

OTHER INFORMATION: Congressional Interest: Congressman Glenn Thompson (PA-5), Senators Robert P. Casey, Jr. (PA), Patrick J. Toomey (PA)

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Townshend Lake, Vermont

AUTHORIZATION: Authorized by the Flood Control Acts of 1944 and 1954. Fish passage facility was authorized by Section 872 of WRDA 1986.

LOCATION AND DESCRIPTION: Townshend Lake is located along the West River, about 19.1 miles above its junction with the Connecticut River in Brattleboro, Vermont, and about two miles west of Townshend, Vermont. The reservoir extends upstream about four miles. Townshend Lake is operated as part of a comprehensive system of flood control projects designed to protect life and property within the Connecticut River Basin. The project consists of an earth-filled dam with rock slope protection, 1,700 feet long with a maximum height of 133 feet; and a horseshoe-shaped concrete outlet conduit with a maximum discharge capacity of 22,100 cubic feet per second. The reservoir provides a flood storage capacity of 33,700 acre-feet to control runoff from its net drainage area of 106 square miles. Construction of the dam and appurtenant structures was initiated in November 1958 and completed in June 1961. Construction of recreation facilities was initiated in October 1969 and completed in September 1971. Fish passage facility work began in June 1992 and was completed in February 1993.

RECOVERY ACT ALLOCATIONS TO DATE: \$110,097

CONFERENCE FOR FY 2011: TBD

ALLOCATION FOR FY 2011: \$797,000

BUDGET FOR FY 2012: M: \$303,000 O: \$576,000 T: \$879,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$718,000 – Funding provides for routine essential operation and maintenance activities necessary to protect downstream life and property during flooding events, and to preserve project infrastructure. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintaining service contracts for snow and debris removal, and vegetation control along dam slopes. Also included is required five year cycle Periodic Inspection of the project and the inspection of one public use bridge located on project lands. Project has prevented an estimated \$115.1 million in flood damages since placed in service in 1961.

Rec: \$106,000 – Funding provides for routine operation and maintenance activities necessary to support the recreational facilities at the project. The project provides recreation opportunities to an average of 67,000 visitors each year.

Hydro: N/A

ES: \$55,000 – Funding provides for routine operation and maintenance activities necessary to maintain the environmental integrity of project lands. Also included is a pest management program at the project. The project consists of 1,010 fee owned acres of land.

WS: N/A

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Tully Lake, Massachusetts

AUTHORIZATION: Authorized by the Flood Control Acts of 1936 and 1938.

LOCATION AND DESCRIPTION: Tully Lake is located along the East Branch of the Tully River, about 3.9 miles above its junction with the Millers River. The project is located in the Towns of Royalston and Tolland, Massachusetts. Tully Lake is part of a comprehensive system of flood control projects designed to protect life and property within the Connecticut River Basin. The project consists of an earth-filled dam with an impervious core and rock slope protection, 1,570 feet long and a maximum height of 62 feet; an uncontrolled ogee weir spillway, 255 feet wide with a maximum discharge capacity of 32,700 cubic feet per second; and a 6-foot diameter outlet conduit with 2 control gates. The reservoir provides a flood storage capacity of 22,525 acre-feet to control runoff from its net drainage area of 50 square miles. Construction of the dam and appurtenant structures was initiated in March 1947 and completed in September 1949.

RECOVERY ACT ALLOCATIONS TO DATE: \$201,646

CONFERENCE FOR FY 2011: TBD

ALLOCATION FOR FY 2011: \$726,000

BUDGET FOR FY 2012: M: \$138,000 O: \$643,000 T: \$781,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$663,000 – Funding provides for routine essential operation and maintenance activities necessary to protect downstream life and property during flooding events, and to preserve project infrastructure. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintaining service contracts for snow and debris removal, and vegetation control along dam slopes. Also included is the required five year cycle Periodic Inspection of the project and inspection of one public use bridge located on project lands. Project has prevented an estimated \$27 million in flood damages since placed in service in 1949.

Rec: \$60,000 – Funding provides for routine operation and maintenance activities necessary to support the recreational facilities at the project. The project provides recreation opportunities to an average of 58,000 visitors each year.

Hydro: N/A

ES: \$58,000 – Funding provides for routine operation and maintenance activities necessary to maintain the environmental integrity of project lands. The project consists of 1,258 fee owned acres of land.

WS: N/A

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Union Village Dam, Vermont

AUTHORIZATION: Authorized by the Flood Control Acts of 1936 and 1938.

LOCATION AND DESCRIPTION: Union Village Dam is located along the Ompompanoosuc River, about 4 miles upstream from its junction with the Connecticut River. The dam lies about one-fourth mile north of Union Village, Vermont and 11 miles north of White River Junction, Vermont. Union Village Dam is operated as part of a comprehensive system of flood control projects designed to protect life and property within the Connecticut River Basin. The project consists of an earth and rock-filled dam, 1,100 feet long with a maximum height of 170 feet; an uncontrolled ogee weir spillway, 388 feet wide with a maximum discharge capacity of 84,900 cubic feet per second; and a 13-foot diameter outlet conduit with 2 control gates. The reservoir provides a flood storage capacity of 38,400 acre-feet to control runoff from its net drainage area of 126 square miles. Construction of the dam and appurtenant structures was initiated in March 1947 and completed in June 1950.

RECOVERY ACT ALLOCATIONS TO DATE: \$164,583

CONFERENCE FOR FY 2011: TBD

ALLOCATION FOR FY 2011: \$683,000

BUDGET FOR FY 2012: M: \$224,000 O: \$1,769,000 T: \$1,993,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$1,871,000 – Funding provides for routine essential operation and maintenance activities necessary to protect downstream life and property during flooding events, and to preserve project infrastructure. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintaining service contracts for snow and debris removal, and vegetation control along dam slopes. Also included are dam safety items recommended by SPRA including Interim Risk Reduction Measures Plan and supplemental Seismic Evaluation (1,367,000) and the required inspection of one public use bridge located on project lands. Project has prevented an estimated \$41.2 million in flood damages since placed in service in 1950.

Rec: \$80,000 – Funding provides for routine operation and maintenance activities necessary to support the recreational facilities at the project. The project provides recreation opportunities to an average of 45,000 visitors each year.

Hydro: N/A

ES: \$42,000 – Funding provides for routine operation and maintenance activities necessary to maintain the environmental integrity of project lands. Also included is a pest management program at the project. The project consists of 991 fee owned acres of land.

WS: N/A

OTHER INFORMATION: Union Village Dam was assigned a Dam Safety Assurance Classification (DSAC) rating of II in September 2009. The principle issue is seepage. The rating of II is defined as Urgent (Unsafe or Potentially Unsafe).

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Washington Harbor, DC

AUTHORIZATION: River and Harbor Committee, Document 22, 74th Congress. 1st Session, August 30, 1935.

LOCATION AND DESCRIPTION: System Code 0207- Washington Harbor Project is located within Washington, DC. The project provides for a channel in the Potomac River from Giesboro Point to Key Bridge, a second channel from Giesboro Point to the end of Washington Channel, and a third channel from the mouth of the Anacostia River to the foot of 15th Street, S.E., with turning basins opposite the Washington Navy Yard (800 feet wide and 2,400 feet long) and at the head of the Anacostia Channel (400 feet square). Channel dimensions are 24 feet deep and 400 feet wide except upstream from Anacostia Bridge where the width is reduced to 200 feet and from Giesboro Point to a point 3,000 feet downstream of Arlington Memorial Bridge and above Easby Point where channel dimensions are 20 feet deep and 200 feet wide. The project also provides for the operation and maintenance of the inlet and outlet gates to the tidal basin

RECOVERY ACT ALLOCATIONS TO DATE: \$0
CONFERENCE AMOUNT FOR FY2011:TBD
ALLOCATION FOR FY 2011: \$25,000
BUDGET FOR FY2012: M: \$25,000 O: \$0 T: \$25,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$25,000 - Funding will provide for annual maintenance to ensure the proper operation of the tidal basin of the inlet and outlet flood gates.

FRM: \$0 - NA

Rec: \$0 - NA

Hydro: \$0 - NA

ES: \$0 - NA

WS: \$0 - NA

OTHER INFORMATION: Congressional Interest: Delegate Eleanor Holmes Norton (DC)

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: West Hill Dam, Massachusetts

AUTHORIZATION: Authorized by the Flood Control Act of 1944.

LOCATION AND DESCRIPTION: West Hill Dam is located along the West River in Massachusetts, about three miles above its confluence with the Blackstone River and 2.5 miles northeast of Uxbridge, Massachusetts. West Hill Dam is part of a comprehensive system of flood control projects designed to protect life and property within the Blackstone River Basin. The project consists of an earth-filled dam with rock slope protection, 2,400 feet long and a maximum height of 48 feet; 4 earth-filled dikes with rock and gravel slopes, totaling 1,910 feet in length; an ogee weir spillway, 50 feet long with a maximum discharge capacity of 8,900 cubic feet per second; and 3 rectangular outlet conduits. The reservoir provides a flood storage capacity of 12,440 acre-feet to control runoff from its net drainage area of 27.9 square miles. Construction of the dam and appurtenant structures was initiated in June 1959 and completed in June 1961. Construction of recreational facilities was completed in June 1967. Major rehabilitation of the dam was completed in July 2003.

RECOVERY ACT ALLOCATIONS TO DATE: \$423,547

CONFERENCE FOR FY 2011: TBD

ALLOCATION FOR FY 2011: \$842,000

BUDGET FOR FY 2012: M: \$181,000 O: \$505,000 T: \$686,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$548,000 – Funding provides for routine essential operation and maintenance activities necessary to protect downstream life and property during flooding events, and to preserve project infrastructure. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintaining service contracts for snow and debris removal, and vegetation control along dam slopes. Project has prevented an estimated \$90.3 million in flood damages since placed in service in 1961.

Rec: \$97,000 – Funding provides for routine operation and maintenance activities necessary to support the recreational facilities at the project. The project provides recreation opportunities to an average of 58,000 visitors each year.

Hydro: N/A

ES: \$41,000 – Funding provides for routine operation and maintenance activities necessary to maintain the environmental integrity of project lands. The project consists of 557 fee owned acres of land.

WS: N/A

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: West Thompson Lake, Connecticut

AUTHORIZATION: Authorized by the Flood Control Act of 1960.

LOCATION AND DESCRIPTION: West Thompson Lake is located along the Quinebaug River, in the Town of Thompson, Connecticut. West Thompson Lake is part of a comprehensive system of flood control projects designed to protect life and property within the Thames River Basin. The project consists of an earth-filled dam with stone slope protection, 2,550 feet long and a maximum height of 69.5 feet; an earth-filled dike 1,650 feet long with a maximum height of 30 feet; an uncontrolled L-shaped ogee weir spillway, 320 feet wide with a maximum discharge capacity of 63,000 cubic feet per second; and a 12-foot diameter horseshoe-shaped outlet conduit with 3 control gates. The reservoir provides a flood storage capacity of 26,800 acre-feet to control runoff from its net drainage area of 173.5 square miles. Construction of the dam and appurtenant structures was initiated in August 1963 and completed in October 1965.

RECOVERY ACT ALLOCATIONS TO DATE: \$500,640

CONFERENCE FOR FY 2011: TBD

ALLOCATION FOR FY 2011: \$849,000

BUDGET FOR FY 2012: M: \$174,000 O: \$512,000 T: \$686,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$547,000 – Funding provides for routine essential operation and maintenance activities necessary to protect downstream life and property during flooding events, and to preserve project infrastructure. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintaining service contracts for snow and debris removal, and vegetation control along dam slopes. Also included is required inspection of one public use bridge located on project lands. Project has prevented an estimated \$45.8 million in flood damages since placed in service in 1965.

Rec: \$87,000 – Funding provides for routine operation and maintenance activities necessary to support the recreational facilities at the project. The project provides recreation opportunities to an average of 165,000 visitors each year.

Hydro: N/A

ES: \$52,000 – Funding provides for routine operation and maintenance activities necessary to maintain the environmental integrity of project lands. The project consists of 1,672 fee owned acres of land.

WS: N/A

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Westville Lake, Massachusetts

AUTHORIZATION: Authorized by the Flood Control Act of 1941

LOCATION AND DESCRIPTION: Westville Lake is located along the Quinebaug River, about 56.7 miles upstream from its confluence with the Shetucket River. The project is located in the Towns of Sturbridge and Southbridge, Massachusetts. Westville Lake is part of a comprehensive system of flood control projects designed to protect life and property within the Thames River Basin. The project consists of an earth-filled dam with stone slope protection, 560 feet long and a maximum height of 78 feet; an uncontrolled ogee weir spillway, 200 feet wide with a maximum discharge capacity of 24,500 cubic feet per second; and 3 rectangular outlet conduits with a control gate. The reservoir provides a flood storage capacity of 11,100 acre-feet to control runoff from its net drainage area of 99.5 square miles. Construction of the dam and appurtenant structures was initiated in April 1960 and completed in August 1962.

RECOVERY ACT ALLOCATIONS TO DATE: \$758,550

CONFERENCE FOR FY 2011: TBD

ALLOCATION FOR FY 2011: \$661,000

BUDGET FOR FY 2012: M: \$169,000 O: \$464,000 T: \$633,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$525,000 – Funding provides for routine essential operation and maintenance activities necessary to protect downstream life and property during flooding events, and to preserve project infrastructure. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintaining service contracts for snow and debris removal, and vegetation control along dam slopes. Also included are required inspections of two public use bridges located on project lands. Project has prevented an estimated \$49.4 million in flood damages since placed in service in 1962.

Rec: \$68,000 – Funding provides for routine operation and maintenance activities necessary to support the recreational facilities at the project. The project provides recreation opportunities to an average of 68,000 visitors each year.

Hydro: N/A

ES: \$40,000 – Funding provides for routine operation and maintenance activities necessary to maintain the environmental integrity of project lands. The project consists of 578 fee owned acres of land.

WS: N/A

OTHER INFORMATION: Westville Dam was assigned a Dam Safety Assurance Classification (DSAC) rating of I in May 2009. The principle issue is seepage. The rating of I is defined as Urgent and Compelling (Unsafe). Dam Safety Construction funds are currently being used to study the seepage at the dam.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Whitney Point Lake, NY

AUTHORIZATION: Flood Control Act of 22 June 1936, amended by Flood Control Act of 28 June 1938 and described in House Document No. 702, 77th Congress, 2nd Session.

LOCATION AND DESCRIPTION: System Code 0205- Whitney Point Lake is located near Whitney Point, New York, on the Otselic River, a tributary of the Tioughnioga River, which discharges into the Chenango River, which discharges into the Susquehanna River at Binghamton, New York. The dam is an earthfill structure, 4,900 feet long, rising 95 feet above the streambed, with a concrete spillway and a gated outlet in the left abutment. The reservoir has a storage capacity of 86,440 acre-feet at spillway crest and will extend about 12 miles upstream when filled to that level. The project controls a drainage area of 255 square miles, the entire watershed of the Otselic River, and 16 percent of the Chenango River watershed upstream from Binghamton. The project forms part of the protection for Binghamton and reduces flood heights on the lower Chenango River and throughout the Susquehanna River Valley downstream from Binghamton. The Broome County Department of Parks and Recreation operates and maintain Dorchester Park under a real estate agreement.

RECOVERY ACT ALLOCATIONS TO DATE: \$152,267

CONFERENCE AMOUNT FOR FY2011: TBD

ALLOCATION FOR FY 2011: \$642,000

BUDGET FOR FY2012: M: \$250,000 O: \$572,000 T: \$822,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$0 - NA

FRM: \$769,000 - Funding will provide for Flood Risk Management operation and maintenance costs for project, which includes salaries for on-site staff, utilities, supplies, critical stream gages and contracts.

Rec: \$34,000 - Funding will provide for coordination with the recreation leasee.

Hydro: \$0 - NA

ES: \$19,000 - Funding will provide natural resources protection and conseravtion, eco-system management and meet responsibilities for safety and compliance with natural resources laws and regulations.

WS: \$0 - NA

OTHER INFORMATION: Congressional Interest: Congressman Richard Hanna (NY-24), Senators Charles E. Schumer (NY), Kirsten E. Gillibrand (NY)

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Wicomico River, MD

AUTHORIZATION: House Document 20, 51st Congress, 1st Session, September 19, 1890, modified by House Document 569, 61st Congress, 2nd Session, June 25, 1910; House Document 1509, 63rd Congress, 3rd Session, March 2, 1919; Senate Committee, 75th Congress, 3rd Session, August 26, 1937; and House Document 619, 81st Congress, 2nd Session, September 3, 1954.

LOCATION AND DESCRIPTION: System Code 0206- The Wicomico River Federal navigation project is located in Wicomico and Somerset Counties, Maryland. The project provides for a channel 14 feet deep and 150 feet wide from the Chesapeake Bay to Salisbury, including a 100 foot wide channel with turning basins all 14 feet deep in the north and south prongs, and a 60 foot wide channel 6 feet deep from deep water in the river to Webster Cove, with a T-shaped basin in the cove 100 feet wide and 400 feet long; and extension of the basin 200 feet long and 100 feet wide on each side. The total project length is 37 miles and different reaches of the project require dredging each year.

RECOVERY ACT ALLOCATIONS TO DATE: \$0
CONFERENCE AMOUNT FOR FY2011: TBD
ALLOCATION FOR FY 2011: \$1,500,000
BUDGET FOR FY2012: M: \$1,500,000 O: \$0 T: \$1,500,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$1,500,000 - Funding will provide maintenance dredging of upper river.

FRM: \$0 - NA

Rec: \$0 - NA

Hydro: \$0 - NA

ES: \$0 - NA

WS: \$0 - NA

OTHER INFORMATION: Congressional Interest: Congressman Andrew P. Harris (MD-1), Senators Benjamin L. Cardin (MD), Senator Barbara A. Mikulski (MD)

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Wilmington Harbor, New Castle County, Delaware

AUTHORIZATION: The existing project, adopted as HD 54-66 in 1896 and 1899, and modified by HD 67-114 in 1922, by HD 71-20 in 1930, by HD 73-32 in 1935, by HD 76-658 in 1940, by SD 86-88 in 1960, and further modified pursuant to the authority of Section 107 of the River and Harbor Act of 1960 (PL 86-645).

LOCATION AND DESCRIPTION: Wilmington Harbor provides for a channel with depths of 38, 35, 21, 10, and 7 feet from the Delaware River to Newport, DE, a turning basin 2050 feet long, 640 feet wide and 38 feet deep opposite the Wilmington Marine Terminal, and jetties at the mouths of Christina and Brandywine Rivers. The project extends from the Delaware ship channel upstream, a length of about 9.9 miles.

RECOVERY ACT ALLOCATIONS TO DATE: \$3,858,247

CONFERENCE FOR FY 2011: TBD

ALLOCATION FOR FY 2011: \$4,270,000

BUDGET FOR FY 2012: M: \$2,895,000 O: \$355,000 T: \$3,250,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS:

NAV: Funds in the amount \$3,250,000 are being used for operation and maintenance activities for the project, including maintenance dredging, monthly channel examination surveys and routine disposal area work.

FRM: \$0 N/A.

REC: \$0 N/A.

HYDRO: \$0 N/A.

ES: \$0 N/A.

WS: \$0 N/A.

OTHER INFORMATION: The Port of Wilmington is a full-service deep water port handling over 400 vessels per year with an annual import/export cargo tonnage of 5 million tons. The port contributes significantly to the Delaware's economic vitality by creating 5,800 jobs resulting in \$225 million in annual personal income, annual business revenues of \$213 million, and annual state and local taxes totaling \$23 million annually. The port is the number one gateway in the United States for imports of fresh fruit, and juice concentrates, the world's largest banana port, and is a key mid-Atlantic distribution hub for imported beef. Largest dockside cold storage and controlled atmosphere facility in the United States. It is imperative the major dike raising effort at Wilmington South begin in early FY 2011 in order to ready the site for receipt of the 2014 dredging cycle. Any delay in accomplishing this work prolongs the burden of absorbing the higher dredging costs associated with the farther pumping distance to Killcohook and quite possibly leave the project without a readily available disposal option to support uninterrupted maintenance dredging operations due to the joint use of the Killcohook site by the Delaware River, Philadelphia to Sea navigation project.

Division: North Atlantic District: Philadelphia Project Name: Wilmington Harbor, New Castle County, DE

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Woonsocket Local Protection Project, Rhode Island

AUTHORIZATION: Authorized by the Flood Control Act of 1944. Section 2875 of the National Defense Authorization Act for FY 2008 (PL 110-181, dated January 28, 2008) transferred responsibility of the project to the Corps of Engineers.

LOCATION AND DESCRIPTION: The Woonsocket Local Protection Project is located along the Blackstone River in north central Rhode Island, extending about 8,300 feet downstream from the Massachusetts state line to Woonsocket Falls Dam in the center of Woonsocket. The project was authorized by the Flood Control Act of 1944 and completed in April 1960. The project was turned over to the City of Woonsocket to operate and maintain in accordance with the Assurance Agreement dated 8 May 1963. Project consists of widening, deepening and straightening of the river channel for a distance of 8,300 feet upstream of Woonsocket Falls Dam, along with construction of a pumping station, 1,115 feet of earth dike and 316 feet of concrete floodwall. The project included replacement of the Woonsocket Falls Dam with a concrete overflow structure 266 feet wide and equipped with four tainter gates. The project was designed to protect against the flood of record (August 1955).

RECOVERY ACT ALLOCATIONS TO DATE: \$5,586,811

CONFERENCE FOR FY 2011: TBD

ALLOCATION FOR FY 2011: \$300,000

BUDGET FOR FY 2012: M: \$134,000 O: \$286,000 T: \$420,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$420,000 – Funding provides for routine essential operation and maintenance activities necessary to protect downstream life and property during flooding events, and to preserve project infrastructure. Activities include data collection, environmental compliance, project inspections and patrols, and controlling releases from Woonsocket Falls Dam; as well as maintaining service contracts for snow and debris removal, and vegetation control along dike slopes and adjacent to floodwalls. Also included is required five year cycle Periodic Inspection of project. Project has prevented an estimated \$149.6 million in flood damages since placed in service in 1960.

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: In accordance with the National Defense Authorization Act of 2008, Operations and Maintenance responsibility of the project was transferred to the Corps in January 2009.

Division: North Atlantic District: New England Project Name: Woonsocket Local Protection Project, RI

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: York Indian Rock Dam, PA

AUTHORIZATION: Flood Control Act of 22 June 1936, amended by Flood Control Act of 28 June 1938 and described in House Document No. 702, 77th Congress, 2nd Session.

LOCATION AND DESCRIPTION: System Code 0205- The protective works for York, Pennsylvania, consist of Indian Rock Dam about 3 miles upstream from York, and channel improvements on Codorus Creek in the city of York. Indian Rock Dam is an earth and rock structure 1,000 feet long rising 83 feet above the streambed, with a side-channel spillway and gated outlet conduit in the right abutment. The normally dry reservoir area has a storage capacity of 28,000 acre-feet at spillway crest and controls a drainage area of 94 square miles. The Codorus Creek project consists chiefly of 22,969 feet of channel improvement including channel widening and deepening, flood walls, levees, protection of bank slopes, and removal of a mill dam which increased channel capacity to 24,000 cubic feet per second. The two components protect the community against flood discharges about 33 percent greater than the record flood of August 1933. Tropical storm Agnes (June 1972) filled the flood control reservoir and produced spillway flow.

RECOVERY ACT ALLOCATIONS TO DATE: \$144,620

CONFERENCE AMOUNT FOR FY2011: TBD

ALLOCATION FOR FY 2011: \$480,000

BUDGET FOR FY2012: M: \$274,000 O: \$609,000 T: \$883,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$0 - NA

FRM: \$869,000 - Funding will provide for Flood Risk Management operation and maintenance costs for project, which includes salaries for on-site staff, utilities, supplies, critical stream gages and contracts.

Rec: \$0 - NA

Hydro: \$0 - NA

ES: \$14,000 - Funding will provide natural resources protection and conservation, eco-system management and meet responsibilities for safety and compliance with natural resources laws and regulations.

WS: \$0 - NA

OTHER INFORMATION: Congressional Interest: Congressman Todd R. Platts (PA-19), Senators Robert P. Casey, Jr. (PA), Patrick J. Toomey (PA)

NORTHWESTERN
DIVISION

**NORTHWESTERN DIVISION
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Blue River Channel, MO	NWD-10
Kansas Citys, MO & KS	NWD-14
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Chatfield, Lake, CO	NWD-88
Cherry Creek Lake, CO	NWD-89
Chetco River, OR	NWD-90
Chief Joseph Dam, WA	NWD-91
Clinton Lake, KS	NWD-92
Cold Brook Lake, SD	NWD-93
Columbia River & Lower Will below Vancouver, WA & Portland, OR	NWD-94
Columbia River at Mouth, OR & WA	NWD-95
Columbia River Btw Vancouver WA & The Dalles, OR	NWD-96
Coos Bay, OR	NWD-97
Coquille River, OR	NWD-98
Cottage Grove Lake, OR	NWD-99
Cottonwood Springs Lake, SD	NWD-100
Cougar Lake, OR	NWD-101
Detroit Lake, OR	NWD-102
Dorena Lake, OR	NWD-103
Dworshak Dam & Reservoir, ID	NWD-104
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Everett Harbor and Snohomish River, WA	NWD-106
Fall Creek Lake, OR	NWD-107
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Fort Peck Dam & Lake, MT	NWD-109
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Lost Creek Lake, OR	NWD-130
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Lower Monumental Lock & Dam, WA	NWD-132
Lucky Peak Lake, ID	NWD-133
McNary Lock & Dam, OR & WA	NWD-134
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FLOOD AND COASTAL STORM DAMAGE REDUCTION

INVESTIGATIONS

APPROPRIATION TITLE: Investigations, Flood Damage Reduction, Fiscal Year 2012

Division: Northwestern

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2009 \$	Allocation FY 2009 \$	Allocation FY 2010 \$	President's Budget FY 2011 \$	Tentative Allocation FY 2012 \$	Additional to Complete After FY 2012 \$
Kansas Citys, Missouri Kansas City District	6,052,000	5,027,000	195,000	0	500,000	330,000	0

The feasibility study and decision documents for this project are organized into an interim and final feasibility report. The interim report established implementation milestones for Argentine Unit, Fairfax/Jersey Creek Unit, North Kansas City Unit, and the East Bottoms Unit. The final feasibility report will establish implementation milestones for the remaining work.

The existing Kansas Citys, Missouri and Kansas Local Protection Project consist of seven levee units along both banks of the Missouri and Kansas Rivers in the Kansas City Metropolitan area. The units extend over 50 miles in length along the rivers. The units have been complete and operating for 30 to 50 years. The Kansas Citys levee system protects about 32 square miles of mostly urban industrial, commercial and residential areas. More than 94,000 persons work in the protected area. The project protects approximately 4,800 significant structures and investment estimated at approximately \$16 billion. The protected area is vital to the entire Midwest economy and is a central rail, highway, and warehousing hub for the entire nation.

In July 1993, floodwaters from both the Missouri and Kansas Rivers were near overtopping several of the levee units. Underseepage concerns were also noted during this event. People, equipment, and aircraft were evacuated from areas behind the levee units. The project has prevented approximately \$8.5 billion in damages through 1996, of which \$3.9 billion was prevented in 1993 alone.

The project currently recommends under seepage, retaining wall, and floodwall modifications to improve the reliability of Missouri River units, and a levee raise and reliability improvements on the Argentine unit located on the Kansas River. The Final Feasibility Report will continue with analysis and recommendations for the Armourdale and Central Industrial District units respective to a lower Kansas River system solution and other minor improvements in various units. The Feasibility study is conducted under the authority of Sec 216 of the 1970 Flood Control Act for review of existing civil works. The local sponsors are the City of Kansas City, Missouri, the North Kansas City Levee District, the Kaw Valley Drainage District, and the Fairfax Drainage District. A FCSA/PMP was executed on 18 Sep 2000.

FY 2011 funds are being used to continue the feasibility phase of the study. The funds requested for FY 2012 will be used to complete the feasibility report and the Peer Review required by Water Resources Development Act 2007. The estimated cost of the feasibility phase is \$9,605,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests; \$400,000 in addition is for the required Federally funded external peer review. All or part of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	\$10,855,000
Reconnaissance Phase (Federal)	850,000
Feasibility Phase (Federal)	5,202,000 (\$400,000 Federal Funded Peer Review)
Feasibility Phase (Non-Federal)	4,802,000

The Interim feasibility study was completed Dec 2006. The feasibility study completion date is to be determined.

APPROPRIATION TITLE: Investigations, Flood Damage Reduction, Fiscal Year 2012

Division: Northwestern

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2009 \$	Allocation FY 2009 \$	Allocation FY 2010 \$	President's Budget FY 2011 \$	Tentative Allocation FY 2012 \$	Additional to Complete After FY 2012 \$
Topeka, Kansas Kansas City District	1,575,000	272,000	191,000	143,000	100,000	100,000	769,000

Topeka Levees is located within the City of Topeka, Shawnee County, Kansas. Construction of a flood protection project at Topeka was completed in Fiscal Year 1974 at a total Federal cost of \$21,175,000. The project has prevented an estimated \$229,280,000 in flood damages through December 1994, with an estimated \$57,792,000 prevented in July and August 1993. A Feasibility Study was completed and PED was initiated in FY 2009.

The recommended project to increase the reliability of the levee system is estimated to cost \$23.5 million, with an estimated Federal cost of \$15.3 million and an estimated non-Federal cost of \$8.2 million. The project includes floodwall, underseepage, foundation, and pump station modifications. Raising the levees is not included in the proposal. The average annual benefits are \$12.0 million, all for flood control. The benefit-cost ratio is 4.5:1 based upon the latest economic analysis, June 2006. The City of Topeka and the North Topeka Drainage District are the sponsors for the project. Latest evidence of sponsor support is the signed design agreement dated September 2009. The sponsor has their share of funds available to finance the PED portion of the design of the project. Preconstruction Engineering and Design will ultimately be cost shared at the rate for the project to be constructed, but will be financed through the Preconstruction Engineering and Design period at 25 percent non-Federal. Any adjustments that may be necessary to bring the Non-Federal contribution in line with the project cost sharing will be accomplished in the first year of construction. The cost sharing for the project will be 65 percent Federal and 35 percent non-Federal in accordance with the Water Resources Development Act of 1986.

FY 2011 funds are being utilized to continue PED activities. FY 2012 funds will be used to complete designs of the underseepage and structural feature modifications in the Oakland Unit and progress development of design efforts in the North Topeka unit. Agency technical reviews and design safety reviews in accordance with the Review Plan will be initiated as each design element is completed.

Total Estimated Preconstruction Engineering and Design Costs	\$2,100,000	Total Estimated Preconstruction Engineering and Design Costs	\$2,100,000
Initial Federal Share	1,575,000	Ultimate Federal Share	1,365,000
Initial Non-Federal Share	525,000	Ultimate Non-Federal Share	735,000

The PED phase completion date is to be determined.

CONSTRUCTION

APPROPRIATION TITLE: Construction, Flood and Coastal Storm Damage Reduction, Fiscal Year 2012

PROJECT: Blue River Channel, Kansas City, Missouri – (Continuing)

LOCATION: The project is located along the Blue River and tributaries in Kansas City, Jackson County, Missouri, and extends from near its mouth (located at Missouri river mile 358.0) to 63rd Street, channel mile 12.5.

DESCRIPTION: The project plan consists of a channel modification along 12.5 miles of the Blue River channel providing flood protection for a once in 30-year flood and reducing flooding for less frequent events.

AUTHORIZATION: 1970 Flood Control Act

REMAINING BENEFIT - REMAINING COST RATIO: 10.2 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 2.7 to 1 at 7 percent.

INITIAL BENEFIT-COST RATIO: 1.6 to 1 at 6 5/8 percent (FY 1979).

BASIS OF BENEFIT-COST RATIO: Economic update of FY 2008, approved July 2008.

SUMMARIZED FINANCIAL DATA:			ACCUM PCT. OF EST. FED COST	STATUS (1 Jan 2011)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		\$250,559,000		Entire Project	95	To be determined
Estimated Non-Federal Other Costs		39,972,000				
Cash Contribution	0					
Other Costs	39,972,000					
Total Estimated Project Cost		\$290,531,000				PHYSICAL DATA
Allocations to 30 September 2008		\$218,989,000				Bridge Alterations at Federal Cost:
Allocation for FY 2009		1,627,000				Railroad Bridges - Modify - 15 \$23,868,000
Allocation for FY 2010		5,291,000				
Recovery Act Allocations to Date		11,282,000				Bridge Alterations at Non-Federal Cost:
President's Budget for FY 2011		4,500,000				Highway Bridges - Modify - 4 \$7,502,000
Allocations through FY 2011		241,689,000	96%			
Budget for FY 2012		3,000,000	98%			Channel Improvement: Length
Programmed Balance to Complete after FY 2012		5,870,000				Main Stem, Blue River Channel 12.5 miles

Division: Northwestern

District: Kansas City

Blue River Channel, Kansas City, Missouri

JUSTIFICATION: The Blue River basin lies completely in the Kansas City Metropolitan Region, with a 2000 population of 1,776,000 persons. The basin drains an area of 272 square miles and is subject to cloudbursts, prolonged rainstorms, floods, and extended drought periods. The maximum flood of record in the basin occurred in September 1961 and caused an estimated \$8 million in damages. An August 1982 flood caused an estimated \$3.3 million in damages, and an October 1986 flood along the Brush Creek tributary of the river caused an estimated \$209,000 in damages in the lower flood plain. A major flood occurred on the lower portion of the river in May 1990 and caused damages estimated at \$100.8 million. The July 1993 flood was not severe in this basin, causing damages estimated at \$60,000. The authorized project would have prevented all but minor damages caused by the 1961 event, and all damages caused by the later events. The channel project provides for about a 30-year level of protection to 3,400 acres in the lower basin, including the Blue River Valley Industrial District. Estimated annual average benefits, all flood control, based on 1 October 1990 prices, are \$57.3 million, of which \$53.7 million are existing benefits and \$3.6 million are future benefits.

FISCAL YEAR 2011: The current amount is being applied as follows:

Item	Amount
Award Construction Contract for Habitat Restoration	\$ 800,000
Continue Channel Construction	2,800,000
Planning, Engineering, and Design	500,000
Construction Management	<u>400,000</u>
Total	\$4,500,000

FISCAL YEAR 2012: The requested amount will be applied as follows:

Item	Amount
Continue Construction Habitat Restoration	\$1,200,000
Continue Channel Construction	800,000
Planning, Engineering, and Design	500,000
Construction Management	<u>500,000</u>
Total	\$3,000,000

NON-FEDERAL COSTS: Local interests are required to furnish without cost to the United States all lands, easements, and rights-of-way required for construction and subsequent maintenance of the project; hold and save the United States free from damages due to construction; perform without cost to the United States necessary highway, highway bridge, and utility alterations required in connection with this project; maintain and operate the project after completion in accordance with regulations prescribed by the Secretary of the Army; and adequately inform all affected persons, at least annually, that the project will not provide complete flood protection. The investment is broken down as follows:

Division: Northwestern

District: Kansas City

Blue River Channel, Kansas City, Missouri

Requirements of Local Cooperation:	Payments During Construction Costs	Annual Operation, Maintenance and Replacement
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas.	\$19,171,000	\$50,000
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities.	\$20,801,000	\$32,000
Total Non-Federal Costs	\$39,972,000	\$82,000

STATUS OF LOCAL COOPERATION: The Section 221 Local Cooperation Agreement (LCA) was signed by the Kansas City District Engineer on 8 September 1983. The City of Kansas City, Missouri provided all the rights-of-way for Stages 1 and 2 constructions that have been completed. Acquisitions for Stage 3 construction are substantially complete.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$250,559,000 is a decrease of \$14,291,000 from the latest estimate (\$264,850,000) presented to Congress (FY 2011). This change includes the following items:

Design Changes	-\$4,425,000
Price De-Escalation on Construction Features	-5,007,000
Post Contract Award and Other Estimating Adjustments	-4,859,000
Total	-\$14,291,000

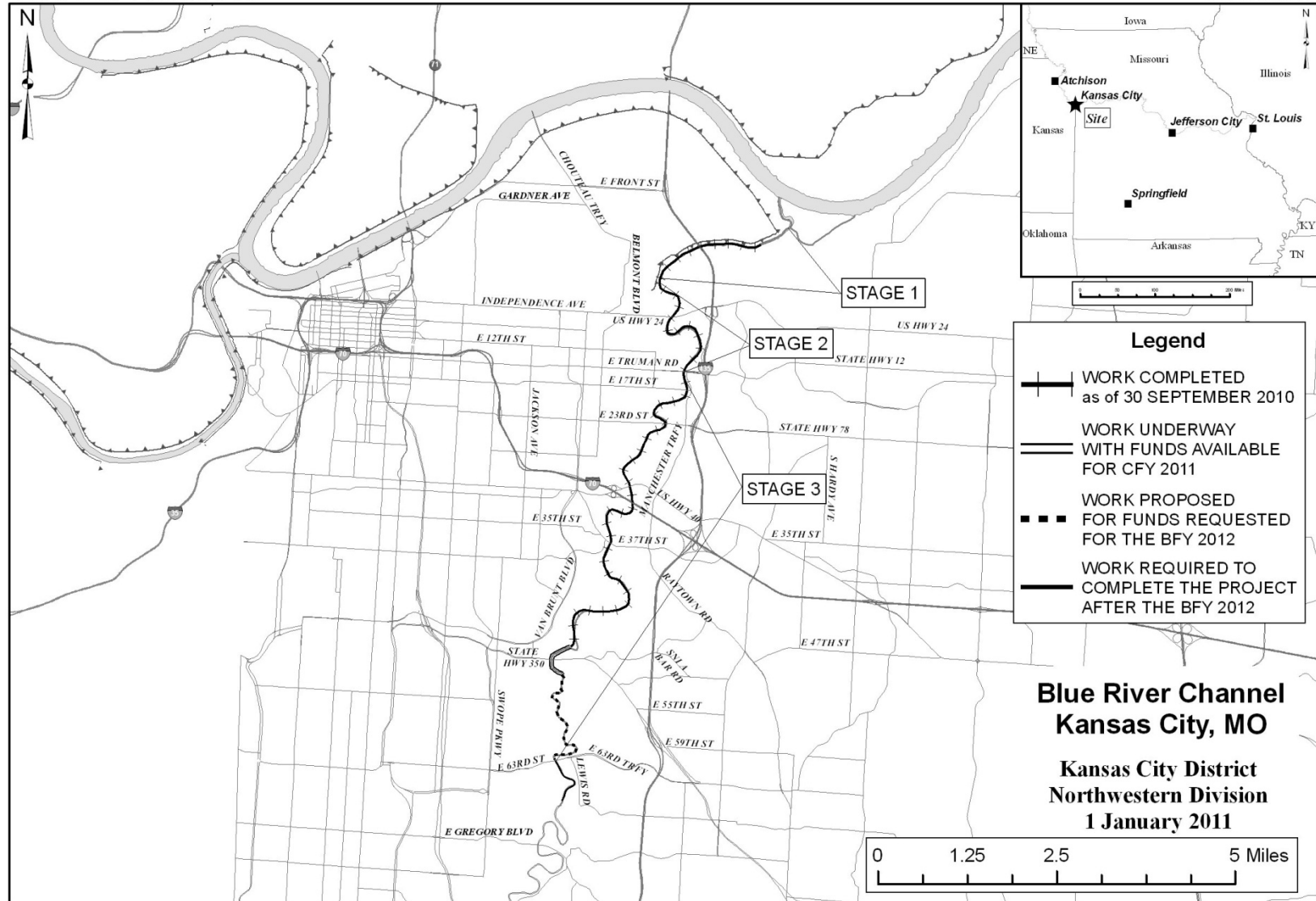
STATUS OF ENVIRONMENTAL IMPACT STATEMENT: Final statement on Blue River Basin plan made in connection with preauthorization studies was filed with the Council on Environmental Quality (CEQ) on 13 November 1970. A more complete draft statement on the Blue River Basin plan, including specific information on the impacts of the Blue River Channel, was filed with the CEQ on 11 April 1974. The final statement was forwarded to HQUSACE on 24 October 1974, and was filed with the CEQ on 8 September 1975.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1973, and funds to initiate construction were appropriated in FY 1979.

Division: Northwestern

District: Kansas City

Blue River Channel, Kansas City, Missouri



Division: Northwestern

District: Kansas City

Blue River Channel, Kansas City, Missouri

APPROPRIATION TITLE: Construction, Flood and Coastal Storm Damage Reduction, Fiscal Year 2012

PROJECT: Kansas Citys, Missouri and Kansas – (Continuing)

LOCATION: The existing Kansas Citys, Missouri and Kansas Local Protection Project consist of a system of seven levee units along both banks of the Missouri and Kansas Rivers in the Kansas City Metropolitan area.

DESCRIPTION: The North Kansas City (NKC) Levee Unit is located along the left bank of the Missouri River in North Kansas City, MO. Design deficiency corrections to address underseepage concerns are required at two locations, the Harlem area and the National Starch area. Modifications include the construction of relief wells and underseepage berms.

The Fairfax-Jersey Creek Unit is located on the left bank of the Kansas River and the right bank of the Missouri River in Kansas City, KS. Design deficiency modifications are proposed at the Board of Public Utilities (BPU) floodwall to provide structural reinforcements needed to provide the originally authorized level of performance. Reconstruction modifications are required at the 1,400 foot long Jersey Creek Sheet-pile Wall. Portions of this wall require replacement and 590 feet of new wall is needed.

The Argentine Unit is located on the right bank of the Kansas River in Kansas City, KS. Proposed reconstruction modifications include raising the unit height and replacing or modifying three pump stations and several closure and drainage structures.

The East Bottoms Unit is located on the right bank of the Missouri River in Kansas City, Missouri. Reconstruction modifications for underseepage improvements are needed including relief wells and buried collector pipeline

AUTHORIZATION: Section 216 of the 1970 Flood Control Act (PL 91-611); 1936 and 1941 Flood Control Acts; Sec 1001 (28) Water Resources Development Act 2007.

REMAINING BENEFIT – REMAINING COST RATIO: 6.1 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 6.0 to 1 at 7 percent.

BASIS OF BENEFIT-COST RATIO: Benefits are from the Chief's Report dated 19 Dec 2006.

Division: Northwestern

District: Kansas City

Kansas Citys, Missouri and Kansas

14 February 2011

NWD-14

SUMMARIZED FINANCIAL DATA:			ACCUM	STATUS	PERCENT	PHYSICAL
			PCT. OF EST.	(1 Jan 2011)	COMPLETE	COMPLETION
			FED COST			SCHEDULE
Estimated Federal Cost		67,100,000		Entire Project	2%	TBD
Estimated Non-Federal Cost		36,100,000				
Cash Contribution	32,454,000					
Other Costs	3,646,000					
Total Estimated Project Cost		103,200,000				
PHYSICAL DATA						
Allocations to 30 September FY 2008		553,000	1/			
Allocation for FY 2009		1,036,000	1/			
Allocation for FY 2010		486,000	2/			
Recovery Allocations To Date		0				
President's Budget for FY 2011		700,000				
Allocations through FY 2011		2,775,000	4%			
Budget for FY 2012		500,000	5%			
Programmed Balance to Complete after FY 2012		63,825,000				

1/ Preconstruction, Engineering and Design (PED) funded under the Investigations account

2/ \$386,000 funded under the Investigations account and \$100,000 funded under the Construction account

JUSTIFICATION: North Kansas City levee under-seepage control design deficiency (NKC Levee Unit): Failure will result in major life safety threats and property damage. Design deficiencies pose a risk of under-seepage failure for the NKC levee unit under major flood events. This modification will provide added under-seepage control keeping pressures within appropriate design criteria. NKC unit provides protection to a wide range of small and medium size businesses plus RR yards, Kansas City Missouri drinking water supply facilities, and the entire downtown Kansas City airport. The unit protects approx \$3 Billion total investment and over 25,000 employees and 5,000 residents. Almost all of the North Kansas City community is located within the unit.

Fairfax Board of Public Utilities (BPU) floodwall foundation design deficiency (Fairfax-Jersey Creek Levee Unit): Failure will result in major life safety threats and property damage. There is a significant risk of floodwall failure which will affect entire Fairfax-Jersey Creek protected area under extreme flood conditions. The BPU power plant which serves much of Kansas City, Kansas is adjacent to the floodwall. Overall, the Fairfax Industrial District is a huge manufacturing hub including large GM plant and several other Fortune 500 corporations, along with many smaller businesses. Approximately \$3 Billion total investment and 11,000 workers are protected by this unit.

Division: Northwestern

District: Kansas City

Kansas City, Missouri and Kansas

JUSTIFICATION: (Continued)

Jersey Creek Sheet-pile Wall – Reconstruction – Failure will result in major life safety threats and property damage. This site poses a risk of sheetpile failure which will affect the entire Fairfax-Jersey Creek protected area under extreme flood conditions. Reconstruction includes replacing this wall located along the Missouri and Kansas Rivers confluence adjacent to the Fairfax Industrial District. Overall, the Fairfax Industrial District is a huge manufacturing hub including large GM plant and several other Fortune 500 corporations, along with many smaller businesses. Approximately \$3 Billion total investment and 11,000 workers are protected by this unit.

Argentine Unit – Reconstruction – Failure will result in major life safety threats and property damage. The unit poses a high risk of levee overtopping and failure which will affect a large residential and business area of Kansas City, KS. Reconstruction includes raising the unit located along the Kansas River and modifying or replacing 3 pump stations and several closure and drainage structures. Approximately \$2.5 Billion total investment, 10,700 workers, and over 3,400 residents are protected by this unit.

East Bottoms Unit – Reconstruction – Failure will result in major life safety threats and property damage. The unit poses a risk of underseepage failure which will affect a large industrial, business, and residential area of Kansas City, MO. Reconstruction includes the installation of relief well s and buried collector piping. Approximately \$4.5 Billion total investment, 20,100 workers, and over 3,200 residents are protected by this unit.

FISCAL YEAR 2011: The current amount is being applied as follows:

Complete design on Fairfax BPU Floodwall	<u>\$700,000</u>
Total	\$700,000

FISCAL YEAR 2012: The requested amount will be applied as follows:

Initiate Design for East Bottoms	\$100,000
Continue Jersey Creek Sheetpile Design	<u>400,000</u>
Total	\$500,000

Division: Northwestern

District: Kansas City

Kansas Citys, Missouri and Kansas

NON-FEDERAL COSTS: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, as amended, the non-Federal sponsor must comply with the requirements listed below.

	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Requirements of Local Cooperation: Provide lands, easements, rights of way, and borrow and excavated material disposal areas which may be reduced for credit allowed based on prior work after reductions for such credit have been made in the required cash payments.	\$3,646,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	0	
Pay for Plans and Specifications for Relocations of utilities and roads	0	
Pay a percent of the costs allocated to flood control to bring the non-Federal share of flood control costs to 35 percent, as determined under Section 103 (m) of the Water Resources Development Act of 1986, as amended, to reflect non-Federal sponsor's ability to pay as reduced for credit allowed based on prior work, or pay 5 percent of the costs allocated to flood control, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	32,454,000	TBD
Total Non-Federal Costs	\$36,100,000	TBD

STATUS OF LOCAL COOPERATION: The Design Agreement with the North Kansas City Levee District was executed on 3 August 2007. The Design Agreement with the Fairfax Drainage District was executed 12 August 2008. The Design Agreement with the Kaw Valley Drainage District for Jersey Creek Sheet-pile Wall was executed 19 January 2010. All sponsors have necessary funds available to finance the non-Federal portion of the design work. Additional Design Agreements for the Argentine and East Bottoms units are scheduled for execution in FY11.

Division: Northwestern

District: Kansas City

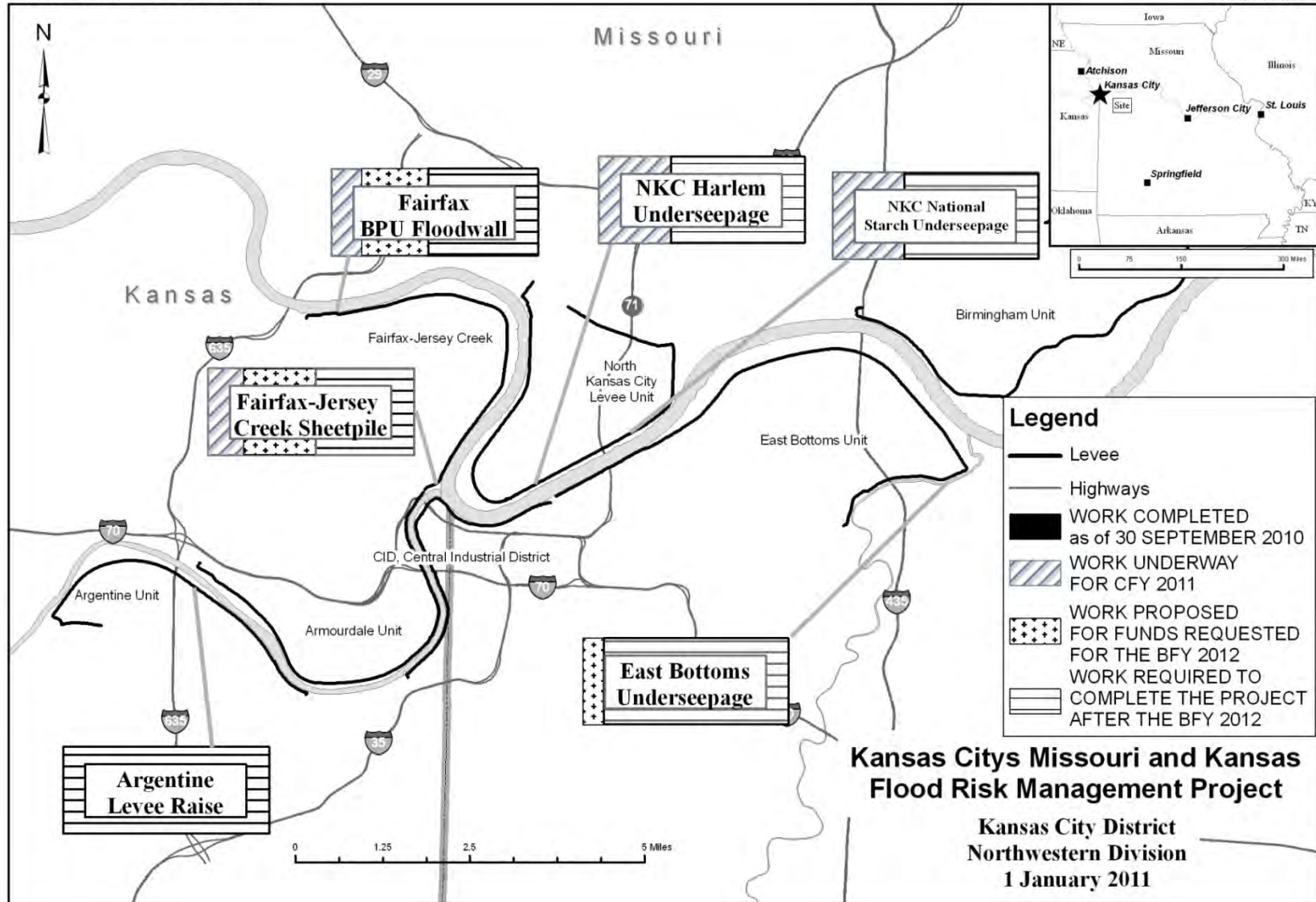
Kansas City, Missouri and Kansas

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal cost estimate of \$67,100,000 is an increase of \$24,570,000 from the latest estimate (\$42,530,000) presented to Congress, (FY2011). This change includes the following:

Item	Amount
Authorized Modifications	\$9,145,000
Price Escalation on Construction Features	<u>15,425,000</u>
Total	\$24,570,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT COMPLIANCE: The Interim Feasibility Report and Environmental Impact Statement (EIS), dated August 2006 with Addendum dated December 2006 addresses opportunities for flood risk reduction for the Argentine, East Bottoms, Fairfax-Jersey Creek, Birmingham and North Kansas City levee units of the Kansas Citys Local Flood Damage Reduction Project. The recommended plan has relatively minor impacts to the natural environment with overall positive benefits to the socio-economic environment. Impacts to the natural environment are minor because the project is located within a previously disturbed environment that is highly industrial and urbanized. All practicable means to avoid and/or minimize adverse environmental effects have been incorporated into the recommended plan. The Record of Decision was signed by the ASACW on 21 Nov 2007.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 2007 and funds to initiate construction were first appropriated in FY2010



Division: Northwestern

District: Kansas City

Kansas City, Missouri and Kansas

APPROPRIATION TITLE: Construction, Flood and Coastal Storm Damage Reduction, Fiscal Year 2012

PROJECT: Mount St. Helens Sediment Control, Washington (Continuing)

LOCATION: A sediment retention structure on the North Fork Toutle River, 3 miles upstream from its confluence with the Green River; a Fish Collection Facility located on the North Fork Toutle River, 8,500 feet downstream of the Sediment Retention Structure; levee improvements at Kelso, Washington on the Cowlitz river; and dredging in the Cowlitz River (river mile 0 - to river mile 20); all located in Cowlitz County, southwest Washington. The river systems impacted by the project include the Toutle, Cowlitz and a portion of the Coweeman River. Most of the population affected by the problems resides in the communities of Longview, Kelso, Lexington and Castle Rock, Washington.

DESCRIPTION: An earth and rock fill sediment retention structure with a spillway height of 125 feet, length of 1,800 feet and a retention capacity of 258 million cubic yards of sediment; a barrier type fish trap facility with a length of 300 feet and a 210 foot fish ladder; levee raise and improvements on the Cowlitz River at Kelso, WA; dredging in the Cowlitz River from the mouth to river mile 20; to provide system-wide flood protection throughout the fifty year project life (1985-2035) at congressionally authorized levels.

AUTHORIZATION: Supplemental Appropriations Act, 1985, PL 99-88.

REMAINING BENEFIT - REMAINING COST RATIO: 3.4 to 1 at 7 percent.

TOTAL BENEFIT - COST RATIO: 3.76 to 1 at 7 percent.

INITIAL BENEFIT - COST RATIO: 3.0 to 1 at 8-5/8 percent. The benefit to cost ratio is based on the project functioning independently.

BASIS OF BENEFIT - COST RATIO: Benefits were updated in June 2007 based on the evaluation reported in the April 1985 Chief of Engineers Report.

RISK INDEX: 2,070

BASIS OF RISK INDEX: The Risk index is computed during budget development using the following: risk velocity times the risk depth times the population at risk, all divided by the warning time.

Division: Northwestern

District: Portland

Mount St. Helens Sediment Control, Washington

14 February 2011

NWD-20

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST	STATUS (1 Jan 2011)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	\$300,400,000				
Programmed Construction	300,400,000		Sediment Retention		
Unprogrammed Construction	0		Structure	100	Feb 90
Estimated Non-Federal Cost	\$25,311,000		Dredging	100	Mar 90
Programmed Construction	25,311,000		Future Dredging	0	To Be Determined
Cash Contribution	4,311,000		Entire Project	45	To Be Determined
Other	21,000,000				
Unprogrammed Construction	0				

Total Estimated Programmed Construction Cost	\$325,711,000
Total Estimated Unprogrammed Construction Cost	0
Total Estimated Project Cost	\$325,711,000

Allocations through 30 September 2008	125,134,000	
Allocation for FY 2009	2,670,000	
Allocation for FY 2010	1,417,000	
Recovery Act Allocations to Date	8,009,000	
President's Budget for FY 2011	800,000	
Allocations through FY 2011	138,455,000	<u>1/</u> 46%
Budget for FY 2012	6,500,000	48%
Programmed Balance to Complete after FY 2012	155,445,000	
Unprogrammed Balance to Complete after FY 2012	0	

PHYSICAL DATA

Dam: Type - Earth and Rockfill
 Spillway Height - 125 feet
 Length - 1,800 feet
 Spillway Width - 400 feet
 Fish Facility: 300 feet long, concrete
 with stilling basin
 Fish Ladder: 210 feet long by
 6 feet wide, concrete
 Lands and Damages: Acres -
 5,374 (Sediment Retention Structure)
 1,300 (Disposal Sites for Dredging)
 25 (Levee Improvements)
 Ultimate Sediment Capacity:
 258 million cubic yards

1/ Includes \$425,000 reprogramming in FY 2011

JUSTIFICATION: The eruption of Mount St. Helens dramatically altered the hydraulic and hydrologic regimes of the Cowlitz and Toutle River Valleys. The Supplemental Appropriation Act, 1985 authorized the Corps to construct, operate and maintain a sediment retention structure (SRS) with such design features and associated downstream actions necessary to provide flood protection to the communities of Longview, Kelso, Castle Rock and Lexington. About 50,000 people and their property are at risk if the flood protection is not maintained.

Division: Northwestern

District: Portland

Mount St. Helens Sediment Control, Washington

Changing hydraulic and hydrologic conditions impact downstream deposition of sediment that is now infringing on the congressionally authorized levels of flood protection. Without dredging and other actions in the watershed the authorized level of flood protection will not be maintained.

The ongoing data collection and sediment management analysis work is a critical step in determining what additional measures should be implemented to maintain long-term flood protection for these communities. Potential alternatives to regain/maintain the authorized levels of protection through 2035 include: dredging, improving levee integrity, increasing flood control storage, develop sediment storage sump, establish a main channel above the SRS to reduce sediment delivery.

This project, in addition to preventing damage to property, is effective in reducing risk to life for the populations in the project area. That risk must be considered in evaluating the project justification in addition to economic analyses. Risk is created by both hydrologic factors (flood depth, velocity, and short warning time) and cultural factors (size of population and available routes of egress from the floodplain).

FISCAL YEAR 2011: The current amount is being applied as follows:

Continue annual sediment monitoring and complete analysis of long-term alternatives	\$800,000
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FISCAL YEAR 2012: The requested amount will be applied as follows:

Continue monitoring and development of long-term sediment strategy	\$875,000
Complete minimum dredging or other flood risk management actions	<u>\$5,625,000</u>
Total	\$6,500,000

NON-FEDERAL COST: In accordance with the agreement between the United States of America and the State of Washington for local cooperation at, along and near the Cowlitz and Toutle Rivers, Cowlitz County, State of Washington, the total estimated non-federal cost for construction is \$25,311,000 including allowances for inflation. The non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction	Annual Operation Maintenance and Replacement Costs
Provide lands, easements, rights-of-way, and dredged material disposal areas	\$16,911,000	
Modify or relocate buildings, utilities, roads, bridges (except railroad bridges), and other facilities, where necessary in the construction of the project	400,000	
Mitigation for dredging operations	4,400,000	\$846,000
Sales & Use Tax Offset from the State of Washington	3,600,000	
Total Non-Federal Payments During Construction	\$25,311,000	
Division: Northwestern	District: Portland	Mount St. Helens Sediment Control, Washington

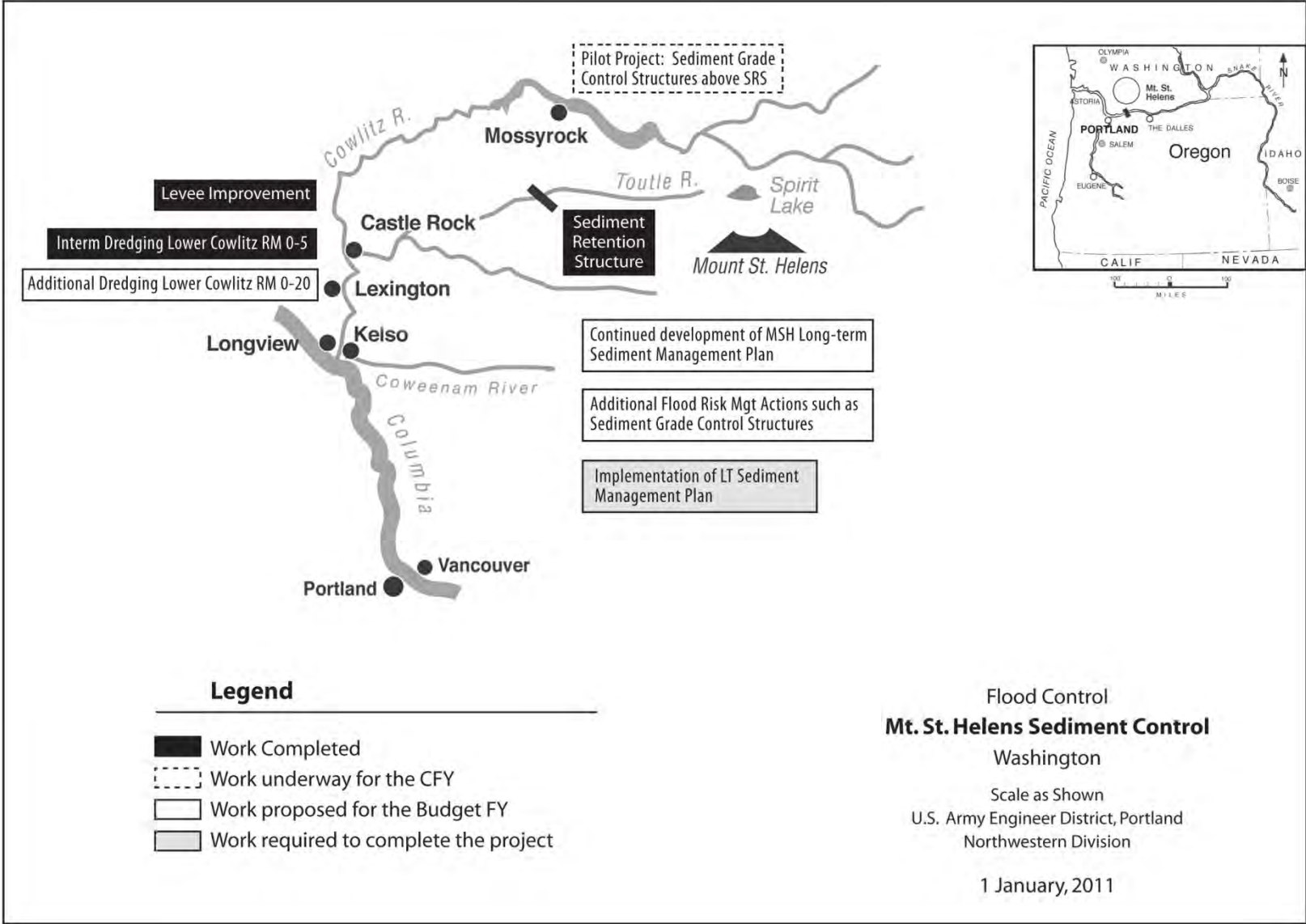
STATUS OF LOCAL COOPERATION: A local cooperation agreement (LCA) for the Sediment Control project was signed on 26 April 1986. The State of Washington is the sponsor for the Sediment Retention Structure (SRS) and dredging portions of the project. Consolidated Diking Improvement District No. 3 and Drainage Improvement District No. 1 are sponsors for the Kelso levee improvement.

Land rights have been obtained by the State over the lands required for initial construction of the SRS. All persons residing within the SRS acquisition boundary have been relocated. The Diking and Drainage Districts have been furnished right-of-way requirements and are continuing their acquisition program. The State is continuing to acquire rights-of-way for additional dredge disposal areas should future dredging be required to preserve authorized flood protection levels.

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal cost estimate of \$300,400,000 is unchanged from the latest estimate submitted to Congress (FY 2011).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement was filed with the Environmental Protection Agency (EPA) in December, 1984.

OTHER INFORMATION: Funds to initiate preconstruction planning were allotted in FY 1985 and construction in FY 1986. The project remains open because of the unique circumstances created by the eruption of Mount St. Helens. Since the small explosive eruption that occurred 1 October 2004, there have been several larger eruptions of steam and ash, with some additional growth of the lava dome within the mountain's existing crater. Significant sediment from the Mount St. Helens debris avalanche continues to deposit in the lower Cowlitz River and is beginning to infringe on the authorized level of flood protection. As a result, the project is at the end of the "natural pause" in construction work. An analysis of alternative approaches and actions to manage the sediment depositing in the lower Cowlitz River is required to maintain flood risk management benefits to the communities of Longview, Kelso, Lexington and Castle Rock through 2035.



Division: Northwestern

District: Portland

Mount St. Helens Sediment Control, Washington

APPROPRIATION TITLE: Construction, Flood and Coastal Storm Damage Reduction, Fiscal Year 2012

PROJECT: Mud Mountain Dam, Washington (Fish Passage Facilities) (Continuing)

LOCATION: Mud Mountain Dam is located at river mile 29.6 on the White River, 6 miles upstream and southeast of Enumclaw, WA and 38 miles southeast of Tacoma, WA in western Washington State. When the original flood damage reduction project was built in 1948, a fish passage trap facility was constructed 6 miles downstream of the dam near Buckley, WA, adjacent to a privately owned barrier dam.

DESCRIPTION: The fish collection facility currently collects salmon to be trucked upstream around Mud Mountain Dam. The current facility is deteriorated and unsafe. Replacement will allow the Corps to continue meeting mitigation requirements for the Mud Mountain Dam Project.

AUTHORIZATION: Flood Control Act of 1936 authorized the Mud Mountain Dam and reservoir on the White River as the main unit of the Puyallup River flood control project.

REMAINING BENEFIT-REMAINING COST RATIO: Not Applicable

TOTAL BENEFIT-COST RATIO: Not Applicable

INITIAL BENEFIT-COST RATIO: Not Applicable

BASIS OF BENEFIT-COST RATIO: Not Applicable

SUMMARIZED FINANCIAL DATA:		ACCUM PCT OF EST FED COST	STATUS (1 Jan 2011)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	\$72,251,000		Entire Project	10%	To Be Determined
Estimated Non-Federal Cost	0				
Total Estimated Project Cost	\$72,251,000				
Allocations to 30 September 2008	\$6,347,000				
Allocation for FY 2009	957,000				
Allocation for FY 2010	378,000				
Recovery Act Allocations To Date	0				
President's Budget for FY 2011	1,000,000				
Allocations through FY 2011	8,682,000	12%			
Budget for FY 2012	1,000,000	13%			
Programmed Balance to Complete after FY 2012	62,569,000				

Division: Northwestern

District: Seattle

Mud Mountain Dam, Washington

PHYSICAL DATA: Fish Trap and Haul Facilities Improvements

JUSTIFICATION: Upstream migratory fish passage is currently provided at the fish collection facility located at Buckley, WA which is co-located with a privately owned barrier dam 6 miles downstream of Mud Mountain Dam. The fish trap is over 60 years old and the adjoining barrier dam is nearly 100 years old. The barrier dam is currently used to divert water to a recreational lake and a future regional water supply facility and is in need of replacement. The current owner of the diversion dam ensures operations at the barrier dam.

FISCAL YEAR 2011: The current amount is being applied as follows:

Planning, Engineering and Design	\$1,000,000
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FISCAL YEAR 2012: The requested amount will be applied as follows:

Complete Decision Document and continue Engineering and Design	\$1,000,000
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NON-FEDERAL COSTS: N/A. Fish passage improvements are a Federal cost.

STATUS OF LOCAL COOPERATION: N/A.

COMPARISON OF FEDERAL COST ESTIMATE: The current estimated Federal cost of \$72,251,000 is unchanged from the last estimate presented to Congress (FY 2011).

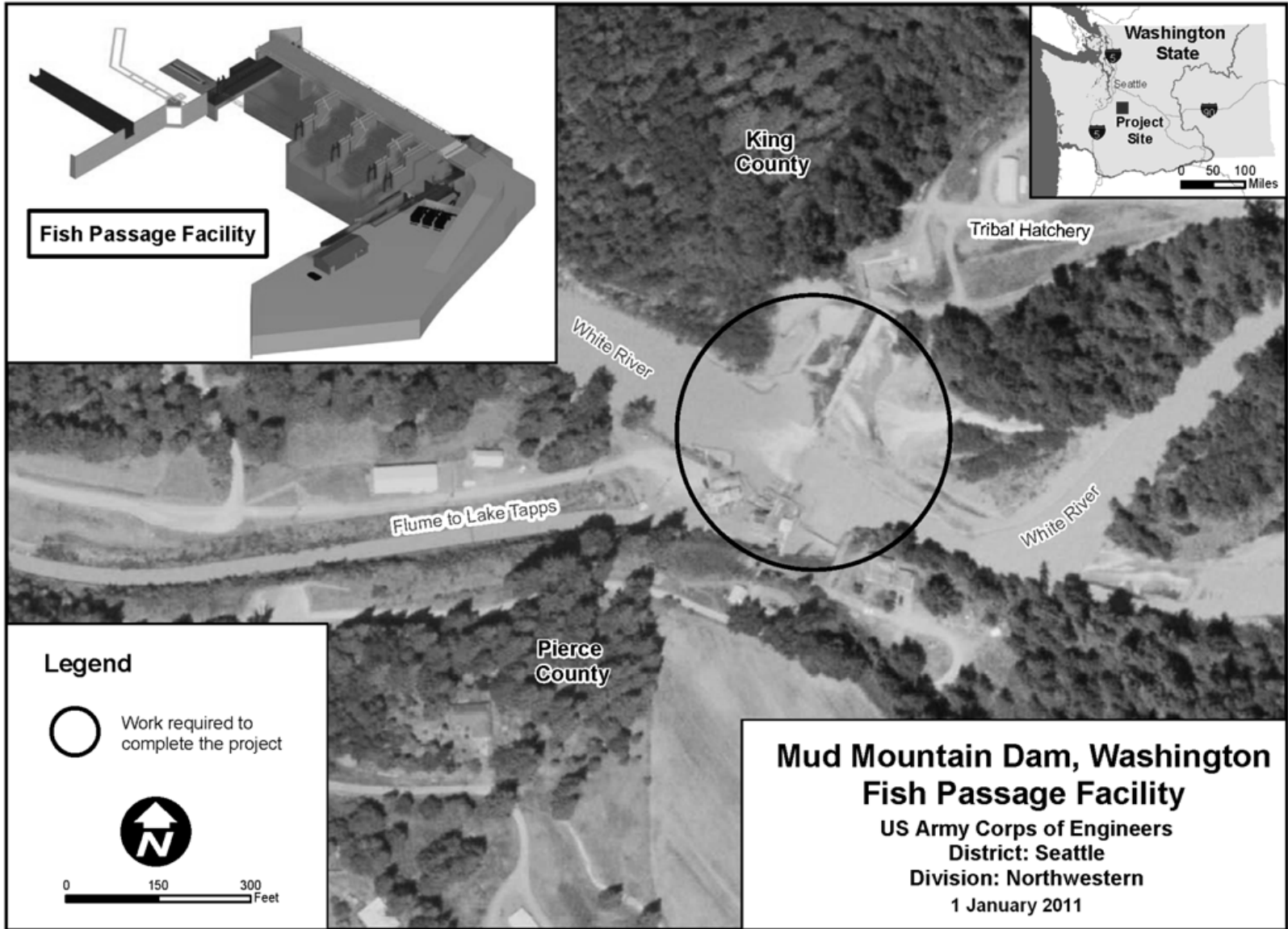
STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An Environmental Assessment for the Dam Safety Assurance Program was completed in June 1986 with an additional Environmental Assessment and Finding of No Significant Impact completed in June 1999. An Environmental Assessment and draft Finding of No Significant Impact for the replacement of the barrier dam was completed in October 2007. A programmatic Biological Assessment under ESA for the Operations and Maintenance of MMD as well as the replacement of the barrier dam was completed in June 2005.

OTHER INFORMATION: Congress added \$500,000 in FY 2002 for "the design of fish passage facilities." In FY 2003, Congress also "provided \$2,500,000 to continue work on dam safety measures and the fish passage facility." Funding for FY 2004 and FY 2005 included appropriations for the fish passage facility but no specific language. FY 2006 funding included specific language for the fish passage facility.

Division: Northwestern

District: Seattle

Mud Mountain Dam, Washington



Division: Northwestern

District: Seattle

Mud Mountain Dam, Washington

14 February 2011

NWD-27

APPROPRIATION TITLE: Construction, Flood and Coastal Storm Damage Reduction, Fiscal Year 2012

PROJECT: Turkey Creek Basin, Kansas City, Kansas and Missouri – (Continuing)

LOCATION: The 23 square mile urban Turkey Creek basin drains Johnson and Wyandotte Counties in Kansas, and a portion of Kansas City, Missouri. Turkey Creek parallels Interstate Highway 35 for much of its length and flows through a tunnel into the Kansas River approximately three miles upstream of its confluence with the Missouri River.

DESCRIPTION: The plan of improvement consists of approximately ten thousand feet of urban channel modification, a levee section, the raising of two railroad bridges, 12.7 acres of riparian planting and four large drainage interceptor pipelines. A dual flood threat exists in the affected area, which consists of Turkey Creek over-bank flow and localized hillside runoff. Either flood source can cause considerable damage. The channel modification addresses the channel flooding threat, and the interceptors address the hillside component.

AUTHORIZATION: Section 101 of the Water Resources Development Act of 1999 and Section 123 of the Consolidated Appropriations Act of 2003.

REMAINING BENEFIT – REMAINING COST RATIO: 1.8 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 1.3 to 1 at 7 percent.

INITIAL BENEFIT-COST RATIO: 1.5 to 1 at 5.625 (FY 2004)

BASIS OF BENEFIT-COST RATIO: Economic update of FY 2008, approved July 2008.

RISK INDEX: 270

BASIS of RISK INDEX: The Risk index is computed during budget development using the following: risk velocity times the risk depth times the population at risk, all divided by the warning time.

Division: Northwestern

District: Kansas City

Turkey Creek Basin, KS & MO

14 February 2011

NWD-28

SUMMARIZED FINANCIAL DATA:		ACCUM PCT. OF EST. FED COST	PHYSICAL STATUS (1 Jan 2011)	PERCENT COMPLETE	COMPLETION SCHEDULE
Estimated Federal Cost		\$67,000,000	Entire Project	66	To Be Determined
Estimated Non-Federal Cost		41,000,000			
Cash Contribution	20,790,000				
Other Costs	20,210,000				
Total Estimated Project Cost		108,000,000			
Allocations to 30 September 2008		17,884,000 1/			
Allocation for FY 2009		9,570,000		PHYSICAL DATA	
Allocation for FY 2010		2,822,000		Channel Modification: 10,000 feet	
Recovery Act Allocations to Date		12,100,000		Levee: 2,800 feet	
President's Budget for FY 2011		8,000,000		Tunnel: 1,300 feet	
Allocations through FY 2011		50,376,000	75%	Railroad Bridge Raises: 2 each	
Budget for FY 2012		4,000,000	81%	Interceptors: 16,000 feet	
Programmed Balance to Complete after FY 2012		12,624,000		Riparian Planting: 12.7 Acres	

1/ Includes Preconstruction, Engineering and Design funded under General Investigations.

JUSTIFICATION: The Turkey Creek basin is a 23-square-mile area within Kansas City, Kansas and suburbs in Johnson and Wyandotte Counties. The basin is nearly 100 percent urbanized, and a significant amount exists within the flood plain. Commercial and industrial investment, valued at over \$139 million, along with residential and other property valued at approximately \$9 million are subject to flood damage. There are almost 500 businesses within the project area accounting for more than 6,000 jobs. Phasing of channel construction to coincide with widening of Interstate Highway 35 by the Kansas Department of Transportation (KDOT) resulted in significant project cost savings. KDOT's work on the channel is complete. A dual flood threat exists in the study area that consists of Turkey Creek over-bank flows and localized hillside runoff. Either flood source can cause considerable damage. Average annual damages without the project are estimated at \$11.7 million and with the project at \$3.2 million. Six damaging floods have occurred since 1977. The flood of record occurred in July 1993 causing one fatality and damages estimated at \$20 million in 1993 or \$28 million at current price level. Another flood of similar magnitude to the 1993 event occurred in October of 1998. The recent severe floods have occurred at night and on weekends when the commercial industrial corridor was inactive. A flood of similar magnitude occurring during normal business hours has the potential to result in multiple fatalities. The authorized project includes construction of channel modifications with a one-percent level of protection and tributary floodwater diversion. Average annual benefits are \$8,487,000.

FISCAL YEAR 2011: The current amount is being applied as follows:

4.4 Railroad Bridge Construction	\$6,000,000
Engineering, Design and Construction Mgmt	<u>2,000,000</u>
Total	\$8,000,000

Division: Northwestern

District: Kansas City

Turkey Creek Basin, KS & MO

FISCAL YEAR 2012: The requested amount will be applied as follows:

Kansas & Missouri Hillside Interceptors Construction	\$3,000,000
Engineering, Design and Construction Mgmt	<u>1,000,000</u>
Total	\$4,000,000

NON-FEDERAL COSTS: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, as amended, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Construction And Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, rights of way, and borrow and excavated material disposal areas.	4,300,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project. For Turkey Creek, roads and bridges have been relocated by COE and thus those costs are not included in this total.	3,862,000	
Pay 100% of the cost allocated to the Mission Road Interceptor and increasing the level of protection of the Missouri Interceptor from 10 years to 15 years (Locally Preferred Plan).	7,048,000	
Credit allowed based on prior work.	5,000,000	

Division: Northwestern

District: Kansas City

Turkey Creek Basin, KS & MO

Requirements of Local Cooperation (continued)	Payments During Construction And Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Pay costs allocated to flood control to bring the non-Federal share of flood control costs to 35 percent, as determined under Section 103 (m) of the Water Resources Development Act of 1986, as amended, to reflect non-Federal sponsor's ability to pay as reduced for credit allowed based on prior work, or pay 5 percent of the costs allocated to flood control, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	20,790,000	112,000
Total Non-Federal Costs	41,000,000	112,000

STATUS OF LOCAL COOPERATION: The City of Kansas City, Missouri and the Unified Government of Wyandotte County and Kansas City, Kansas expressed their intent to sponsor the project and a statement of financial capabilities in letters provided in January 2003 and November 2002 respectively. The Project Cooperation Agreement (PCA) was signed 17 July 2006, following completion of tunnel work initiated by the Sponsor.

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal cost estimate of \$67,000,000 is an increase of \$8,707,000 from the latest estimate (\$58,293,000) presented to Congress (FY 2011). This change includes the following items.

Post Contract Award and Other Estimating Adjustments	-\$930,000
Price Escalation on Construction Features	\$ 9,637,000
Total	\$8,707,000

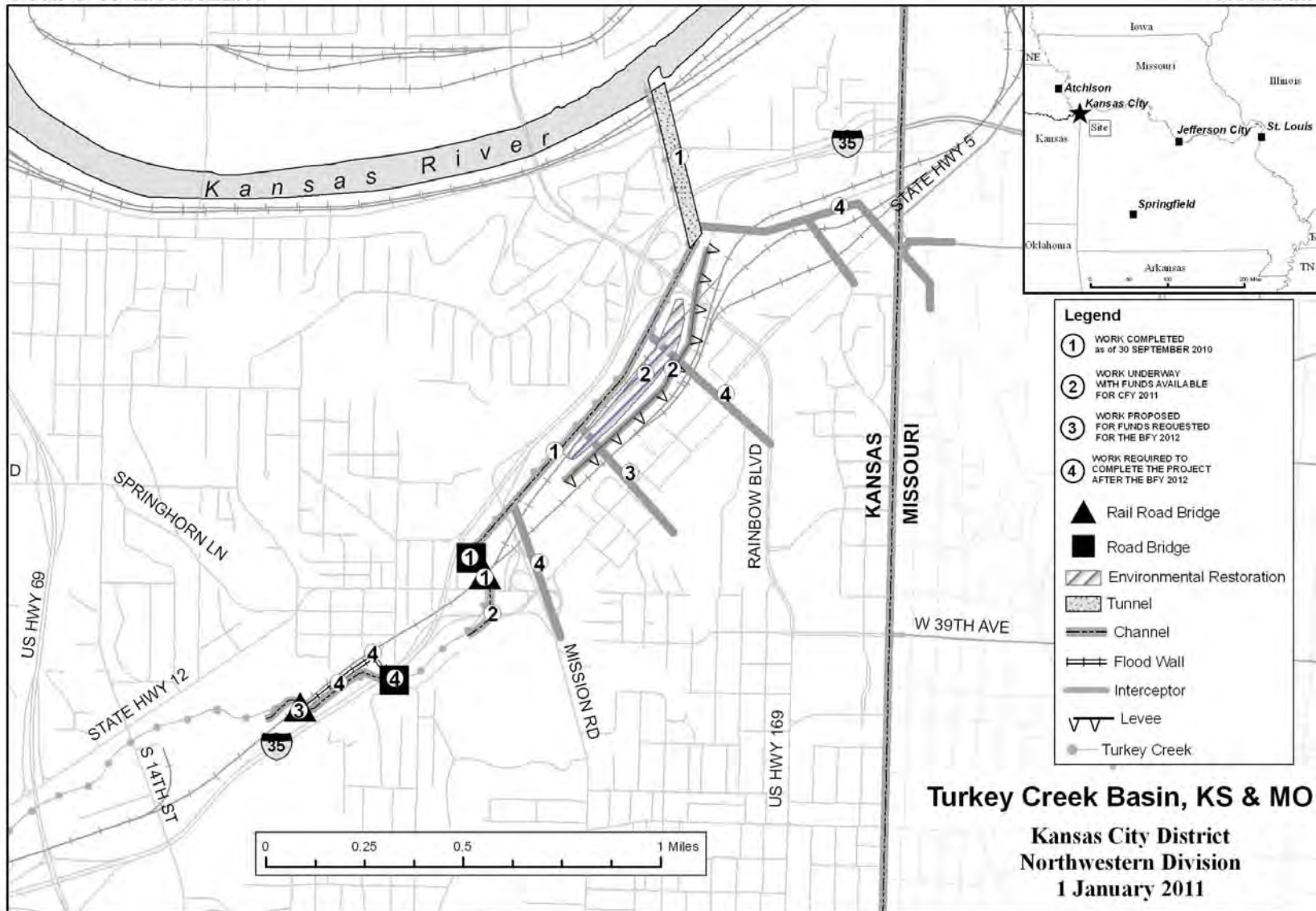
STATUS OF ENVIRONMENTAL IMPACT STATEMENT: A Revised Environmental Assessment, dated January 2003, concluded that no significant impacts, which would adversely affect the quality of the environment, were identified for the plan for flood protection measures for the lower Turkey Creek Basin. The District Commander signed a Finding of No Significant Impact February 4, 2003.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1998. Preconstruction Engineering and Design (PED) was completed in September 2004. Funds to initiate construction were first appropriated in FY04.

Division: Northwestern

District: Kansas City

Turkey Creek Basin, KS & MO



Division: Northwestern

District: Kansas City

Turkey Creek Basin, KS & MO

NAVIGATION

INVESTIGATIONS

APPROPRIATION TITLE: Investigations, Flood Damage Reduction, Fiscal Year 2012

Division: Northwestern

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2009 \$	Allocation FY 2009 \$	Allocation FY 2010 \$	President's Budget FY 2011 \$	Tentative Allocation FY 2012 \$	Additional to Complete After FY 2012 \$
Missouri River Degradation, MO & KS Kansas City District	3,950,000	295,000	84,000	556,000	600,000	600,000	1,815,000

The Missouri River between miles 340 and 400 in the Kansas City reach has exhibited significant degradation or downcutting of the riverbed. This phenomenon has been observed by evaluation of Missouri River gage data collected over a long period of time. In other reaches of the Missouri River from Rulo, Nebraska to St. Louis, MO, data indicates that the river bed is relatively stable. Concern has been expressed by local entities that continued degradation within this reach could destabilize the navigation structures, the bank stability, and impact local intake/discharge infrastructure (i.e., water supply intake structures, power supply intake structures, and other critical infrastructure along the river). Continued degradation could also impact Federal interest in the existing Kansas City's Metropolitan Flood Protection System.

FY 2011 funds are being used to continue the feasibility phase of the study. The funds requested for FY 2012 funds will be used to continue the feasibility study and to continue on going field investigations, and engineering and economic analysis for determining baseline and future conditions. USGS groundwater modeling will be completed. Data and inventories for economic studies will be gathered and project coordination and public involvement activities will be conducted. The Feasibility Study includes detailed economic, technical and environmental assessments of potential corrective measures. The study team will quantify the nature of the problem and begin the process of identifying implementable solutions. Field investigations, surveys and detailed physical modeling will be conducted to provide information needed for evaluation of potential solutions. Economic, engineering, technical, and environmental assessments of potential corrective measures would be used to screen measures for potential effectiveness. The funds requested for FY 2012 will be used to continue the feasibility phase of the study. The total estimated cost of the feasibility phase is \$6,842,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	\$7,371,000
Reconnaissance Phase (Federal)	529,000
Feasibility Phase (Federal)	3,421,000
Feasibility Phase (Non-Federal)	3,421,000

The feasibility study completion date is to be determined.

AQUATIC ECOSYSTEM RESTORATION

INVESTIGATIONS

APPROPRIATION TITLE: Investigations, Environment, Fiscal Year 2012

Division: Northwestern

Study		Total Estimated Federal Cost \$	Allocation Prior to FY 2009 \$	Allocation FY 2009 \$	Allocation FY 2010 \$	President's Budget FY 2011 \$	Tentative Allocation FY 2012 \$	Additional to Complete After FY 2012 \$
Lower Columbia River Ecosystem Restoration, OR & WA Portland District	Annual Allocations	3,191,000	1,005,000	96,000	251,000	300,000	300,000	1,089,000
	ARRA Allocations			150,000				
	Total Allocations	3,191,000	1,005,000	246,000	251,000	300,000	300,000	1,089,000

The Lower Columbia River Ecosystem Restoration Investigations study extends from the mouth of the Columbia River to river mile (RM) 145 at Bonneville Lock and Dam; its estuary is classified as nationally significant under the National Estuary Program (NEP). The river divides the states of Oregon and Washington throughout this area. The study area includes a 43-foot deep-draft federal navigation channel from the mouth of the river to the Portland metropolitan area about RM 105 and a shallow draft channel upstream to RM 145. The Corps of Engineers' 125-year involvement with the Lower Columbia Basin system includes flood damage reduction, navigation, fish and wildlife, environmental restoration, hydropower, bank protection, recreation and water supply improvements.

Competing water resource requirements and significant environmental degradation has occurred within the Lower Columbia Basin system. Modification of the system by human activities has led to a marked change in the hydrologic regime, and caused pollution and substantial losses of instream, riparian and wetland habitats, and a concomitant reduction in fish and wildlife resources. Flood control, water quality, navigation, water-related infrastructure, and ecosystem restoration needs have all been evaluated on a case-by-case basis. Twelve different populations of anadromous salmonids that reproduce in the Columbia River Basin have been listed as threatened or endangered and they all use the estuary to some extent. Such listings have broad implications to existing water resource uses, and future developments. The updated proposed action for the Columbia River Federal Power System includes calling for planning and restoration efforts in the Columbia River estuary to help avoid jeopardy for these listed species. Historic losses of 52,000 acres of wetland/marsh habitats, 13,800 acres of riparian forest habitat and 27,000 acres of forested wetland habitat downstream of Portland have significantly impacted this ecosystem's ability to produce and sustain fish and wildlife resources. Much of this wetland loss can be attributed to the 84,000 acres encompassed by diking districts and the 20,000-acre increase in urban development that has occurred along the lower Columbia River.

The purpose of this ongoing study is to investigate and recommend appropriate solutions to accomplish a comprehensive ecosystem approach for addressing restoration and water resource opportunities in the Lower Columbia River Basin and is not limited to the tidally influenced areas but is ecosystem-wide in scope. A comprehensive, long-range approach to address water resource problems and opportunities for the Lower Columbia River is needed. Some of the key areas to be addressed in this comprehensive study include wetland/riparian habitat restoration and stream and fisheries habitat improvement. It is imperative that reversals of these impactful trends occur now before further urban growth causes irreparable impairment of current water uses and ecosystem functions, and while regional interest and financial support is high. This comprehensive watershed study would serve as the catalyst to bring together and implement current efforts by a number of governmental and private organizations including the National Estuary Program (NEP), six state agencies from Oregon and Washington, four Federal agencies, recreation, ports, industry, agriculture, labor, commercial fishing, environmental interests and citizens. The states of Washington and Oregon have jointly sponsored the study. The project has the potential to add up to 10,000 acres of Estuarine / Riverine emergent and forested wetland, consistent with the Lower Columbia River Estuary Partnerships Comprehensive Conservation Management Plan and Washington State recovery plans.

FY 2011 funds are being used to continue the feasibility phase of the study. FY 2012 funds will be used to continue the feasibility phase to include specific tasks as: continued screening and refining of potential actions and alternatives for the identified sites; developing costs and benefits for potential actions; providing more detailed planning, analysis and evaluation, including initial design, for long-range larger projects; Hydrologic Engineering Centers River Analysis System (HEC-RAS) modeling; initiating programmatic Environmental Impact Statement (EIS) for habitat restoration; developing programmatic project methodologies for pile structures; working closely with cost share partners to define specific program requirements; initiating and continuing design development to include ecosystem restoration, habitat creation, habitat enhancement, and potential habitat conservation.

The estimated cost of the feasibility phase is \$6,000,000, which will be shared on a 50-50 percent basis by the Corps and the non-Federal sponsors. All or part of the non-Federal share may be in-kind services. Sponsors have provided \$1,261,456 in work-in-kind to date. A summary of study cost sharing is as follows:

Total Estimated Study Cost	\$6,191,000
Reconnaissance Phase (Federal)	191,000
Feasibility Phase (Federal)	3,000,000
Feasibility Phase (Non-Federal)	3,000,000

The reconnaissance study was completed in Aug 2001. The states of Oregon and Washington are jointly sponsoring the study and understand the cost sharing provisions associated with the feasibility phase of the study. The Feasibility Cost Share Agreement (FCSA) was executed 16 December 2003. The feasibility study completion date is to be determined.

APPROPRIATION TITLE: Investigations, Environment, Fiscal Year 2012

Division: Northwestern

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2009 \$	Allocation FY 2009 \$	Allocation FY 2010 \$	President's Budget FY 2011 \$	Tentative Allocation FY 2012 \$	Additional to Complete After FY 2012 \$
Mount St. Helens Environmental Restoration, WA Portland District	1,300,000	300,000	0	0	225,000	225,000	550,000

The Cowlitz River Basin study area, located in southwest Washington, includes the Toutle River from Spirit Lake at the base of Mt. St. Helens to the confluence of the Cowlitz with the Columbia River (river mile 68), about 55 miles downstream from Portland. The purpose of this restoration project would be to address the loss of wetland, riverine, riparian, and upland habitats due to the Mt. St. Helens eruption in 1980. Sediment retention structures, sediment stabilization basins, and dredged material disposal sites, constructed under emergency authorities to protect against flooding have served to block anadromous fish passage, and impact riverine spawning and rearing areas. Recovery of these habitats and their associated fish and wildlife species is unattainable without restoration actions to address impacts of constructed features on these rivers. The study will address wetland, riparian and upland habitat restoration, fish passage concerns and solutions, and riverine/stream habitat restoration measures.

The drastic reduction in native Endangered Species Act (ESA)-listed salmonid and steelhead populations has become a significant issue of concern in the Pacific Northwest. The curtailment or severe reduction in commercial, recreational, and treaty fisheries has impacted the regional economy. Restoration actions proposed in this study would serve to address salmonid recovery in the Cowlitz-Toutle River Drainage. Fish passage problems can be resolved by removal of barriers and construction of features to alleviate steep gradients or sheet flows. Riverine fisheries habitat can be restored by placement of structural features to form pools and riffles, provision of spawning gravel, construction of side channels to form rearing areas and restoration of riparian and wetland habitats adjacent to the streams. Restoration of wetland habitat can be attained by development of dikes and other features to create shallow impoundments, construction of water control features, plantings, and restoration of degraded wetlands.

Habitat restoration actions on the Toutle and Cowlitz Rivers affected by the Mt. St. Helens eruption would represent a net contribution to restoring the region's significant ESA-listed fisheries and wildlife resources. Restoration actions on these rivers, which have a history of high anadromous fisheries production, would aid repopulation of headwaters habitat and recovery of these populations. Restoration efforts would also benefit waterfowl and other waterbirds, neotropical migrants, resident fish and wildlife.

A coalition of interest groups, including the Washington State Department of Fish & Wildlife, Cowlitz Indian Tribe, and Friends of the Cowlitz, are in support of this study and intend to act as non-Federal sponsors. The study will address environmental restoration of the Cowlitz and Toutle Rivers, especially as it impacts ESA species, including salmon and steelhead. The reconnaissance study was completed in April 2007.

FY 2011 funds are be used to initiate the feasibility study. The fund requested for FY 2012 will be used to continue the feasibility study.

A summary of estimated study cost sharing is as follows:

Total Estimated Study Cost:	\$2,300,000
Reconnaissance Phase (Federal)	300,000
Feasibility Phase (Federal)	1,000,000
Feasibility Phase (Non-Federal)	1,000,000

The study authority is Section 452 of the Water Resources Development Act of 1999, PL106-53, dated August 17, 1999. The feasibility study completion dates is to be determined.

APPROPRIATION TITLE: Investigations, Environment, Fiscal Year 2012

Division: Northwestern

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2009 \$	Allocation FY 2009 \$	Allocation FY 2010 \$	President's Budget FY 2011 \$	Tentative Allocation FY 2012 \$	Additional to Complete After FY 2012 \$
Puget Sound Nearshore Marine Habitat Restoration, WA Seattle District	10,762,000	5,774,000	1,434,000	954,000	400,000	400,000	1,800,000

The Puget Sound Nearshore study area is located along the marine shorelines and waters of Puget Sound, WA. Over the years a significant amount of estuary wetlands, marsh, river delta, and marine shoreline habitat in Puget Sound has been destroyed or degraded through development, including a 70% loss of estuarine wetlands and 60% beach degradation. The degradation has contributed to a severe reduction in the number of fish and wildlife being produced or residing in the nearshore area. Numerous Endangered Species Act (ESA) listed species use the nearshore for forage, nesting, and/or migration. These include southern resident Orca whale, marbled murrelet, stellar sea lion, sea otter, brown pelican, short-tailed albatross, Puget Sound bull trout, Puget Sound chinook, Hood Canal summer chum, and steelhead trout.

The study is identifying ways to restore nearshore habitat for fish and wildlife within the Puget Sound Basin, including all the major sub-basins - Hood Canal, South, Central and North Puget Sound, and the Straits of Georgia and Juan De Fuca. Twenty-one management measures, such as dike and seawall removal, beach restoration, and tidal marsh nutrient recycling, have been identified that address the fundamental causes of declining Puget Sound ecological health. This study is strongly supported by multiple local, state, and Federal agencies, and is part of an ongoing multi-agency effort to restore and improve habitat throughout Puget Sound. The Governor of the State of Washington reaffirmed this project as a priority restoration initiative for the state, including naming 11 Nearshore team members to her Puget Sound partnership and science committee, acknowledged in writing the project's role in her "Action Agenda" report, and provided \$19M in early action project funds to initiate protection and restoration measures in the Estuary and Salmon Recovery Funding Program. Nearshore is the Corps' best Puget Sound investigation to comply with Counsel for Environmental Quality (CEQ) "8+1+1" National Restoration Initiative.

FY 2011 funds are being used to continue the feasibility phase of the study. The funds requested for FY 2012 funds will be used to prepare technical analysis to evaluate and compare the alternative plans.

A summary of study cost sharing is as follows:

Total Estimated Study Cost	\$21,000,000
Reconnaissance Phase (Federal)	123,000
Feasibility Phase (Federal)	10,638,500
Feasibility Phase (Non-Federal)	10,238,500

The reconnaissance phase was completed in December 2000. The feasibility study is scheduled for completion March 2013.

APPROPRIATION TITLE: Investigations, Environment, Fiscal Year 2012

Division: Northwestern

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2009 \$	Allocation FY 2009 \$	Allocation FY 2010 \$	President's Budget FY 2011 \$	Tentative Allocation FY 2012 \$	Additional to Complete After FY 2012 \$
Willamette River Environmental Dredging, Oregon Portland District							
Annual Allocation	2,633,000	1,006,000	161,000	381,000	220,000	250,000	0
ARRA Allocation			603,000	12,000			
Total Allocations	2,633,000	1,006,000	764,000	393,000	220,000	250,000	0

The Willamette River basin occupies a 12,000 square mile area in western Oregon. The 187-mile river begins in the Cascade and Coast Ranges and flows through local watersheds affected by logging, farming, and urban development before it empties into the Columbia River at Portland, Oregon. From Willamette Falls at river mile 26.5 to the mouth at river mile 0, the river passes through the City of Portland where the waterfront is highly developed. Approximately 2 million people live within the lower Willamette River drainage from just above Willamette Falls to the river mouth. The lower Willamette River in Portland is also part of the Columbia and Lower Willamette Rivers federal navigation project. The project supports a thriving deep draft vessel shipping port in a regional economy where one in five jobs in the Portland/Vancouver area are related to export of grain, mineral resources or manufactured products. A yearly average of 7 million tons of grain per year is exported through Portland, many through grain elevators on the Willamette River. The federal navigation project is maintained from river miles 0 to 14 and contributes to Portland being the tenth largest exporter in the nation. Petroleum products and mineral ores are the dominant imports at Willamette River facilities.

Industrial and urban activity in and along the waterway has adversely affected water and sediment quality. Degraded spawning and rearing and migratory habitats have contributed to declines of native populations of salmon, steelhead and trout. In March and April of 1999 the National Oceanic and Atmospheric Administration (NOAA) Fisheries listed five local fish populations as threatened under the Endangered Species Act, for the first time extending protection to populations in heavily urbanized areas within the Pacific Northwest. Two fish populations, the Lower Columbia River Chinook and Columbia River Chum salmon rear in urban streams. The Coastal Cutthroat spends much or all of their life in streams of the Columbia and lower Willamette up to Willamette Falls. Upper Willamette River Chinook and Steelhead rear and migrate through the lower Willamette River.

During the last few decades, much has been done to improve water quality in the river by reducing industrial and municipal point sources pollutant discharges. Efforts continue to improve water quality through eliminating combined sewer overflows and point and non-point pollution controls. Over the past few years the State of Oregon pursued cleanup of specific sites along the river that include impacted sediments. In 1998, the state began a comprehensive sediment management plan.

The Portland Harbor Sediment Management Plan and subsequent sediment investigation work plan is to investigate and potentially remediate sediments in a six-mile reach of the Portland Harbor using the State of Oregon Environmental Cleanup Law. In December 2000, the US Environmental Protection Agency chose to place the Portland Harbor on the National Priorities List under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), placing investigation of the Portland Harbor under joint management with the State of Oregon, under a Federal lead. The state will be the lead agency for upland contaminant source control, and the US Environmental Protection Agency will be the lead for the project and in-water work. The joint Environmental Protection Agency (EPA) investigation and cleanup project will identify and address site-specific contaminant sources and clean up sediment contamination that exceeds

health-based levels for the protection of human health and the environment. While these efforts represent a major step in the right direction, a significant opportunity exists for a cooperative venture to further leverage resources and focus on achieving restoration objectives through sediment remediation.

The study has been broadened from its original scope of environmental dredging to encompass environmental restoration on a watershed scale. The expanded objective of the study is to develop a publicly supported plan for ecosystem restoration actions throughout the Lower Willamette River including ecosystem restoration, water quality improvement and environmental dredging. The feasibility study is intended to analyze water-related ecosystem restoration opportunities within the Lower Willamette River system to identify, refine and prioritize potential restoration sites in the Willamette in coordination with other restoration and cleanup activities. Any environmental dredging portion of the project will examine opportunities to remediate orphaned contamination sites and, in the process, develop a comprehensive sediment management plan.

The City of Portland and the Port of Portland are the local sponsors and are the responsible parties within the Portland Harbor that are engaged in negotiations with the US Environmental Protection Agency to complete the ecosystem restoration, the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) remedial investigation and feasibility studies. The City of Portland has provided a letter of intent to partner in this cooperative venture to address ecosystem restoration. The City understands the cost sharing requirements of the feasibility and implementation phases of the potential project and the requirements for polluter responsibility and liability should any sediment remediation be identified as a portion of the project. Principal Responsible Parties will not be relieved of their liability should the project proceed to implementation.

Stakeholders include the Port of Portland, the City of Portland and state agencies, including the Oregon Department of Environmental Quality and the Oregon Department of Fish and Wildlife. Further collaboration with the National Oceanic and Atmospheric Administration (NOAA) Fisheries, the U.S. Environmental Protection Agency, the U.S. Fish and Wildlife Service, and other federal agencies will also occur.

Although there are two major Corps projects within the lower Willamette River, the navigation channel and the current deepening of the channel as part of the Columbia River Channel Improvements, neither project addresses improvement to sediment and water quality which could be accomplished by dredging. Both projects could benefit from improvements to sediment quality.

FY 2011 funds are being used to continue the feasibility phase. FY 2012 funds will be used to complete the feasibility phase of the study and all formal reviews to include the Agency Technical Review, Alternative Formulation Briefing and Independent External Peer Review. The estimated cost of the feasibility phase is \$4,236,000, of which \$3,986,000 will be shared on a 50/50 percent basis by the Corps and the non-Federal sponsors and an additional \$250,000 will be 100% federally funded for the newly required Independent External Peer Review. All or part of the non-Federal share may be work-in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	\$4,626,000
Reconnaissance Phase (Federal)	390,000
Feasibility Phase (Federal)	2,243,000 (includes \$250,000 100% federally funded Independent External Peer Review)
Feasibility Phase (Non-Federal)	1,993,000

The reconnaissance study was completed in December 2000 and was amended in July 2002 to include other restoration opportunities in the lower Willamette River. The Project Management Plan is based on a watershed approach and consistent with the work plan for the CERCLA remedial investigation. The Feasibility Cost Sharing Agreement was signed with the City of Portland in September 2003. The feasibility study is scheduled for completion June 2012.

APPROPRIATION TITLE: Investigations, Environment, Fiscal Year 2012

Division: Northwestern

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2009 \$	Allocation FY 2009 \$	Allocation FY 2010 \$	President's Budget FY 2011 \$	Tentative Allocation FY 2012 \$	Additional to Complete After FY 2012 \$
Willamette River Floodplain Restoration, Oregon Portland District	2,436,000	1,876,000	57,000	137,000	153,000	213,000	0

The Willamette River is a major tributary of the Columbia River and the tenth largest river in the United States based on average annual flow. The Basin is located in Northwestern Oregon and comprises an area of approximately 12,000 square miles, or about 12 percent of the state of Oregon (United States Geological Survey [USGS], 1991). The study will investigate opportunities to restore natural floodplain function along the Willamette River and its tributaries.

The need for ecosystem restoration was increased when National Oceanic and Atmospheric Administration's (NOAA) Biological Opinion (BIOP) was issued on 11 July 2008. The BIOP concludes that project operations jeopardize the continued existence of Upper Willamette Chinook salmon and winter steelhead, listed as Threatened under the Endangered Species Act (ESA). Loss of aquatic habitat due to reservoir operations and historic bank protection measures undertaken by the Corps is seen as a critical factor in the decline of populations of those species. Reasonable and Prudent Alternatives (RPAs) in the BIOP call for the Corps to undertake efforts to restore degraded downstream habitat in the floodplain. The United States Fish and Wildlife Service's (USFW) Biological Opinion issued 11 July 2008 includes Reasonable and Prudent Measures (RPMs) to minimize impacts for resident fish species; Oregon Chub and Bull Trout. The Willamette River does not meet Clean Water Act standards for temperature, in part due to reservoir operations. River temperatures are another limiting factor for threatened or endangered salmonids. The Corps is working cooperatively with Oregon Department of Environmental Quality to develop temperature Total Maximum Daily Loads (TMDLs) for the Willamette River. Shading associated with restored riparian forests and increased groundwater flows resulting from increased floodplain connectivity are viewed as important measures for helping reduce river temperatures. The feasibility study, scheduled for completion in FY 2012, and potential projects resulting from it are viewed as an important vehicle for implementing such measures. The Willamette River is designated as an American Heritage River (AHR). Section 202 of the Water Resources Development Act of 2000 (P.L. 106-541, 11 December 2000) and Section 729 of the Water Resources Development Act of 1986 (100 Stat.4164) authorized the Secretary of the Army to assess the water resources needs of river basins and watersheds of the United States. The Willamette River Basin was identified as one of five priority watersheds.

The recommended plan from the Feasibility Study will provide opportunities to modify existing floodplain features in the Willamette Valley to restore natural wetlands and promote ecosystem restoration. The recommended plan will be fully developed during the Pre-Construction, Engineering, and Design (PED) phase to refine the implementation schedule and prioritization of key features based on the non-Federal Sponsor's acquisition of properties, such as stream reconnection, recreation of riparian habitat, removal of non-native species, strategic placement of large wood, and restoration of old gravel mining pits for wildlife as well as ESA listed species. The initial area evaluated includes the Middle Fork and Coast Fork of the Willamette River. The Feasibility Study currently identifies up to 1,300 acres along these rivers, including riverine aquatic bed, forested wetland and riparian woodland habitat that may be restored with an increase of approximately 310 Habitat Units. A rough order of magnitude cost estimate for these initial restoration measures range from \$70M to \$90M.

FY 2011 funds are being used to continue the feasibility phase of the study. The funds requested for FY 2012 will be used to complete the feasibility phase (includes \$300,000 for 100% federally funded Independent External Peer Review).

Total Estimated Study Cost	\$4,180,000
Reconnaissance Phase (Federal)	392,000
Feasibility Phase (Federal)	2,044,000
Feasibility Phase (Non-Federal)	1,744,000

The reconnaissance study (Section 905(b) Analysis) was completed in April 1999. The Feasibility Cost-Sharing Agreement was executed in January 2004 and is scheduled for completion in June 2012.

APPROPRIATION TITLE: Investigations, Environment, Fiscal Year 2012

Division: Northwestern

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2009 \$	Allocation FY 2009 \$	Allocation FY 2010 \$	President's Budget FY 2011 \$	Tentative Allocation FY 2012 \$	Additional to Complete After FY 2012 \$
Yellowstone River Corridor							
Montana Annual Allocations	4,759,000	2,548,000	430,000	179,000	200,000	200,000	776,000
Omaha District ARRA Allocations			426,000				
Total Allocations	4,759,000	2,548,000	856,000	179,000	200,000	200,000	776,000

A comprehensive study of the Yellowstone River corridor from Gardiner, Montana, to the confluence of the Missouri River to determine the hydrologic, biological and socioeconomic cumulative impacts as authorized by Section 431 of Water Resources Development Act of 1999. The Yellowstone River corridor, defined linearly as approximately 600 river miles in Montana and North Dakota and laterally from the channel as the upper riverine terrace formed from historic fluvial processes, has been subject to natural and human interactive factors affecting sustainable use and conservation of resources. Flooding in 1996 and 1997 caused damage to private landowners and public facilities with a subsequent increase in requests for regulatory approvals under Section 10 of the Rivers and Harbors Act/Section 404 of the Clean Water Act as well as for Corps of Engineers emergency technical assistance. Given the natural and historic heritage of this river corridor, issues regarding the long-term effects of bank stabilization and the potential for significant adverse cumulative impacts have been raised by public and private sector and environmental interests. In contrast, issues regarding an individuals' right to protect personal property and more local control of floodplain/riverine activities have been evident from the landowner and local government interest groups. The primary goal of this study is to develop a set of publicly supported river corridor management recommendations that address effects of channel modifications on the human community and riparian ecosystem along the Yellowstone River corridor. The corridor study will be used to 1) develop the formulation of management and protection objectives; 2) evaluate trade-offs among objectives; 3) assess environmental impacts as a factor in determining the acceptability of management objectives as contrasted with potential long-term riparian deterioration.

A related Upper Yellowstone River Study was directed by the FY 99 Energy and Water Development Appropriation Bill, Senate Report 105-206. This special area management plan study from Gardiner to Springdale, MT, a reach of about 85 miles, is assessing the long-term effects of streambank stabilization on that reach of the river. The Yellowstone River Corridor Study will incorporate results from the ongoing Upper Yellowstone River technical studies. The Upper Yellowstone Study should be finalized prior to completion of the entire corridor study.

The remaining 515 miles of the corridor will be subdivided into representative river reaches (totaling approximately 250 miles), which will be studied in detail. The sub-reaches will be based on hydro geomorphic characteristics and comparative analyses of altered vs. unaltered reaches will be conducted. These comparison studies will form the basis for analyzing the cumulative effect of past, present, and potential future land use changes. The cumulative effects analysis will form the basis for formulation of management and protection objectives in concert with the local public/private sector interest groups. The Yellowstone Corridor Study has strong potential to lead into future ecosystem restoration projects and sustainable flood damage reduction projects that could be pursued under existing Corps authorities.

The Feasibility Cost Sharing Agreement (FCSA) was signed in January 2004. The cost share sponsor is the Custer County Conservation District, the fiscal agent for the Yellowstone River Conservation District Council (YRCDR). The sponsor has provided \$1,000,000 in in-kind services through Fiscal Year 2009.

FY 2011 funds are being used to continue the feasibility phase of the study. FY 2012 funds will be used to continue the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is \$5,800,000, which is to be shared on a 75-25 percent basis by Federal and non-Federal interests. All of part of the non-Federal share may be in-kind services.

A summary of study cost sharing is as follows:

Total Estimated Study Cost	\$ 6,209,000
Reconnaissance Phase (Federal)	409,000
Feasibility Phase (Federal)	4,350,000
Feasibility Phase (Non-Federal)	1,450,000

In accordance with Section 431 of P.L. 106-53, this study is to be performed in consultation with the United States Fish and Wildlife Service (USFWS), United States Geological Survey (USGS), Natural Resources Conservation Services (NRCS) and with full participation of the State of Montana, and the tribal and local entities, and provide for public participation. Funding for the consultation efforts of the USFWS and NRCS during the study should be obtained by each respective agency.

The reconnaissance phase was completed in January 2004. The feasibility study completion date is to be determined.

CONSTRUCTION

APPROPRIATION TITLE: Construction, Environment, Fiscal Year 2012

PROJECT: Columbia River Fish Mitigation, Washington, Oregon, & Idaho (Continuing)

LOCATION: Lower Columbia, Snake, and Willamette Rivers.

DESCRIPTION: The mitigation consists of: (1) Adult and juvenile fish bypass improvements at Lower Granite, Little Goose, Lower Monumental, and Ice Harbor on the Snake River; McNary, John Day, The Dalles, and Bonneville on the Columbia River, avian predation controls, and salmon survival research and development in the Lower Columbia River estuary and near-ocean environments, (2) A mitigation analysis, prepared in cooperation with regional interests, to evaluate additional measures to increase fish survival in the Columbia and Snake Rivers. The mitigation analysis provides the analytical process for consideration and implementation of Federal actions necessary to support regional initiatives and Federal salmon and steelhead ESA requirements. (3) Beginning in FY2008, evaluations, design and construction of measures to address the impacts on ESA-listed species of salmon and steelhead of construction and operation of 13 dams on the Willamette River. (4) Increased efforts to improve juvenile and adult pacific lamprey passage to boost recovery and avoid additional ESA listings within the FCRPS were initiated in FY 2009.

AUTHORIZATION: 1933 Federal Emergency Administration of Public Works; 1935, 1945 and 1950 River and Harbor Acts; 1937 Bonneville Project Act; 1938, 1948, 1950 and 1954 Flood Control Acts; WRDA 1986, Section 906(b)(1); WRDA 1996, Section 511, as amended by WRDA 1999, Sec.582 and WRDA 2007, Sec. 5025.

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable. Mitigation is incrementally justified through consideration of costs and non-monetary and monetary benefits; accordingly, a benefit-cost ratio is not computed.

TOTAL BENEFIT-COST RATIO: Not applicable

INITIAL BENEFIT-COST RATIO: Not applicable

BASIS OF BENEFIT-COST RATIO: Not applicable

SUMMARIZED FINANCIAL DATA		ACCUM %	STATUS	PERCENT	COMPLETION
		OF EST	(1 Jan 2011)	COMPLETE	SCHEDULE
Estimated Appropriation Requirement (Corps of Engineers)	\$ 2,100,000,000	FED COST	Entire Project	68%	2023
Estimated Other Federal Costs (Bonneville Power Administration)	9,670,000				
Total Initial Federal Cost	2,109,670,000				
Future Non-Federal Reimbursement	1,719,000,000	<u>1/</u> <u>2/</u>			
Estimated Federal Cost (Ultimate)	381,000,000				

Division: Northwestern

District: Portland

Columbia River Fish Mitigation,
Washington, Oregon & Idaho

SUMMARIZED FINANCIAL DATA (Continued)

Estimated Non Federal Cost	\$1,719,000,000	
Cash Contributions	0	
Other Costs	0	
Reimbursements, Power	1,719,000,000	
Total Estimated Project Cost	2,109,670,000	
Allocations through 30 September 2008	1,262,635,000	
Allocation for FY 2009	83,256,000	
Allocation for FY 2010	80,693,000	
Recovery Act Allocations to Date	28,810,000	
President's Budget for FY 2011	137,615,000	
Allocations through FY 2011	1,593,009,000	76%
Budget for FY 2012	128,405,000	82%
Programmed Balance to Complete after FY 2012	378,586,000	
Unprogrammed Balance to Complete after FY 2012	0	

1/ Allocation for actual reimbursement by the Bonneville Power Administration is made as each element is placed in service.

2/ Includes an estimate of the non-Federal share for Willamette program, based on preliminary cost estimate and potential project locations and actions. Will be updated following feasibility evaluations and actual implementation decisions and costs.

PHYSICAL DATA

Lower Granite Lock & Dam

Juvenile fish bypass system
 Juvenile fish transport facilities
 Barge moorage
 Fish transport barges
 Spillway flow deflectors
 Removable spillway weir
 Juvenile passage monitoring facilities
 Adult fish ladders
 Adult passage monitoring facilities
 Lamprey passage facilities

McNary Lock & Dam

Juvenile fish bypass system
 Juvenile fish transport facilities
 Juvenile passage monitoring facilities
 Spillway flow deflectors
 Spillway surface bypass weirs
 Adult fish ladders
 Adult passage monitoring facilities
 Lamprey passage facilities

Bonneville Lock and Dam

Juvenile fish bypass system
 Independent station service
 Juvenile fish monitoring facilities
 Corner collector surface bypass
 Spillway flow deflectors
 Sea lion barriers
 Adult fish ladders
 Adult passage laboratory
 Adult passage monitoring facilities
 Lamprey passage facilities
 Forebay guidance curtain

Division: Northwestern

District: Portland

Columbia River Fish Mitigation,
 Washington, Oregon & Idaho

PHYSICAL DATA (Continued)

Little Goose Lock & Dam

Juvenile fish bypass system
Lamprey passage facilities
Spillway flow deflectors
Spillway surface bypass weir
Juvenile fish transport facilities
Adult fish ladders

John Day Lock & Dam

Juvenile fish bypass system
Juvenile passage monitoring facilities
Spillway flow deflectors
Spillway surface bypass weirs
Adult fish ladders
Mitigation hatcheries
Lamprey passage facilities

Mitigation Analysis

Gas abatement
Adult passage
Turbine Passage
Project passage efficiency and survival studies
Prototype facility studies
Delayed & multiple bypass mortality studies
Temperature impacts

Lower Monumental Lock & Dam

Juvenile fish bypass system
Juvenile fish transport facilities
Spillway flow deflectors
Removable spillway weir
Juvenile passage monitoring facilities
Adult fish ladders
Lamprey passage facilities

The Dalles Lock & Dam

Tailrace spill wall
Spillway improvements
Sluiceway passage
Adult fish ladders
Lamprey passage facilities

Willamette Valley Projects

Evaluations (Mitigation Analysis)
Adult trap and hold facilities
Temperature control facilities
Juvenile passage facilities

Ice Harbor Lock & Dam

Juvenile fish bypass system
Spillway flow deflectors
Removable spillway weir
Juvenile passage monitoring facilities
Adult fish ladders
Lamprey passage facilities

Lower Columbia River estuary

Avian Predation Reduction
Estuary Studies

JUSTIFICATION: Columbia River Fish Mitigation provides mitigation for the impact of Corps' dams on migrating salmon. Completed and scheduled mitigation measures are based on analyses completed to date. Mitigation measures are being considered as a result of the Northwest Power Planning Council's regional rebuilding efforts for upriver salmon stocks, the NMFS listing of salmon as threatened/ endangered, the NMFS Biological Opinions on operation of the Federal Columbia River Power System (FCRPS) issued 1995, 1998, 2000, 2004, 2008 and the 2010 Supplemental BiOp which includes the Adaptive Management Implementation Plan and amendments), the 2008 Columbia Basin Fish Accords, and the 2008 USFWS and NMFS Willamette River Basin BiOp. The current scope of this project has been adjusted to be in accord with biological opinions and specific dates for reasonable and prudent actions identified in the BiOp(s). The Mitigation Analysis, begun in FY 1991, is contributing to a regionally collaborative process for analyzing potential new measures.

Division: Northwestern

District: Portland

Columbia River Fish Mitigation,
Washington, Oregon & Idaho

In response to Section 582 of WRDA 1999 and in recognition of the effects of the hydropower system operations on the Columbia River estuary and concomitant impacts on salmonids, efforts began in FY 2001 to address habitat and avian predation issues in the estuary. In FY2008, under the authority of Section 906b of WRDA 1986, the Corps initiated actions to relocate a portion of the Caspian Tern colony in the estuary to reduce predation on migrating juvenile salmonids.

In response to ongoing ESA consultation, the Corps proposed to initiate a study to identify impacts, and identify and recommend appropriate structural modifications in the Willamette River Basin to address impacts on listed species resulting from the operation of the 13 dams in the basin beginning in FY2008. A BiOp was issued by NMFS and USFWS in July 2008. As a result of the May 2008 Columbia Basin Fish Accords, increased efforts to investigate and improve juvenile and adult Pacific lamprey passage and survival was initiated in FY2009.

FISCAL YEAR 2011: Funds are being applied to address the highest priority actions to comply with the NMFS 2008 BiOp requirements for the FCRPS, the NMFS and USFWS 2008 BiOp for the Willamette River Basin, and the 2008 Columbia Basin Fish Accords. Current execution plans are for funds to be applied on major measures as follows:

Lower Granite	\$2,300,000	John Day	\$8,260,000
Facility bypass improvements		Surface bypass	
Adult ladder improvements		Adult ladder improvements	
Configuration and Operations Plan		Avian predation deterrents	
Performance verification			
Little Goose	2,000,000	The Dalles	2,850,000
Surface bypass weir		Emergency adult ladder aux water supply	
Outfall relocation		Spill wall construction	
Configuration and Operations Plan			
Performance verification			
Lower Monumental	16,420,000	Bonneville	3,775,000
Outfall relocation		B2 orifice modifications	
Removable spillway weir		B1 Kelt/adult passage	
Configuration and Operations Plan			
Performance verification			
Ice Harbor	2,500,000	Lower Columbia River Estuary	8,800,000
Unit 2 Replacement		Estuary Studies	
Spillway chute/deflector modification		Avian predator relocation	
Performance verification			

Division: Northwestern

District: Portland

Columbia River Fish Mitigation,
Washington, Oregon & Idaho

PHYSICAL DATA (Continued)

McNary	15,865,000	Mitigation Analysis, LSR/LCR system	39,845,000
Surface bypass		Lamprey passage improvement development,	
Outfall relocation		Tagging studies, Fall Chinook studies,	
Juvenile fish facility debris mitigation		Adult passage and survival studies	
Performance verification		Delayed mortality, Turbine passage survival	
Willamette Valley Projects	35,000,000	PIT tag recovery, Post –FCRPS survival study	
Mitigation analysis		LCR Performance verification	
Trap and haul facilities, release sites			=====
			Total \$137,615,000

FISCAL YEAR 2012: The requested amount will be applied to address the highest priority actions to comply with the NMFS 2008 BiOp requirements for the FCRPS, the NMFS and USFWS 2008 BiOp for the Willamette River Basin, and the 2008 Columbia Basin Fish Accords. Current execution plans are for funds to be applied on major measures as follows (Specific amounts are tentative. See "Other Information" below):

Lower Granite	\$22,250,000	John Day	14,555,000
Facility bypass improvements		Surface bypass	
Adult ladder improvements		Adult ladder improvements	
Configuration and Operations Plan		Avian predation deterrents	
Performance verification			
Little Goose	7,100,000	The Dalles	1,000,000
Surface bypass weir		Emergency adult ladder aux water supply	
Configuration and Operations Plan			
Performance verification			
Lower Monumental	4,000,000	Bonneville	\$0
Outfall relocation			
Removable spillway weir			
Configuration and Operations Plan			
Performance verification			
Ice Harbor	3,600,000	Lower Columbia River Estuary	3,700,000
Unit 2 Replacement		Estuary Studies	
Spillway chute/deflector modification		Avian predator relocation	
Performance verification			

Division: Northwestern

District: Portland

Columbia River Fish Mitigation,
Washington, Oregon & Idaho

PHYSICAL DATA (Continued)

McNary	750,000	Mitigation Analysis, LSR/LCR system	18,350,000
Surface bypass		Lamprey passage improvement development,	
Outfall relocation		Tagging studies, Fall Chinook studies,	
Juvenile fish facility debris mitigation		Adult passage and survival studies	
Willamette Valley Projects	53,100,000	Delayed mortality, Turbine passage survival	
Mitigation analysis		PIT tag recovery, Post –FCRPS survival study	
Trap and haul facilities		LCR Performance verification	
Fish release sites			=====
			Total \$128,405,000

NON-FEDERAL COST: Costs eventually determined to be allocable to power are reimbursable. The dams being modified and analyzed are a part of the Federal Columbia River Power System (FCRPS). Bonneville Power Administration (BPA), the Federal Power Marketing Agency, establishes system rate levels adequate to recover all capital investment costs for generating projects (including Corps generating projects) within a 50-year period and to repay annual OM&R and interest expenses. BPA submits an annual financial statement to Congress, as required by law, on repayment and periodically recommends rate adjustments as required for meeting repayment obligations.

STATUS OF LOCAL COOPERATION: None required.

COMPARISON OF FEDERAL COST ESTIMATE: The total Initial Federal cost estimate of \$2,109,670,000 remains unchanged from the last estimate presented to Congress (FY 2011).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: Mitigation construction may be covered by existing environmental impact statements. Additional Environmental documentation pursuant to NEPA will be accomplished as necessary. Consultations with the National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service (USFWS) will be held and biological assessments prepared as necessary to conform with requirements of NEPA and of the Endangered Species Act (ESA).

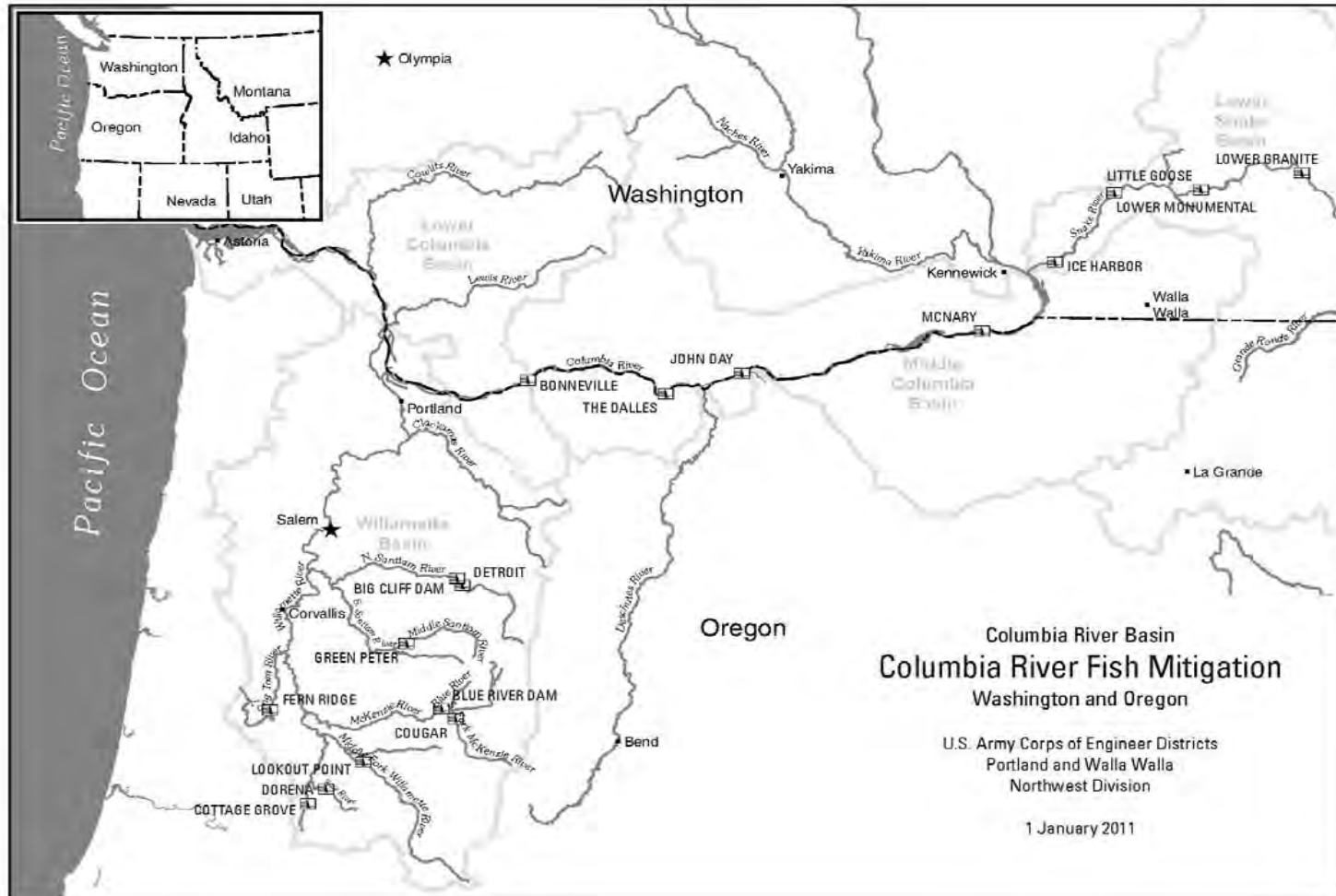
OTHER INFORMATION: Funds to initiate construction were appropriated in Fiscal Year 1988.

Potential Changes: Salmon rebuilding initiatives for Corps implementation have been adopted by the Northwest Power Planning Council (Council) as part of the amended Columbia River Basin Fish and Wildlife Program and are established through ESA consultation and documented in the NMFS and USFWS Biological Opinions. In response to the biological opinions, the Corps has developed and continues to update implementation plans. The Council, NMFS and USFWS emphasize adaptive management – incorporating changes based on new research, monitoring and regional prioritization decisions. This adaptive management approach is regionally recognized and accepted.

Division: Northwestern

District: Portland

Columbia River Fish Mitigation,
Washington, Oregon & Idaho



Division: Northwestern

District: Portland

Columbia River Fish Mitigation,
Washington, Oregon & Idaho

14 February 2011

NWD-56

APPROPRIATION TITLE: Construction, Environment, Fiscal Year 2012

PROJECT: Duwamish and Green River Basin, Washington (Continuing)

LOCATION: The project is located in the Duwamish/Green River Basin, in King County in the Puget Sound Basin in northwestern Washington State.

DESCRIPTION: The project will provide 45 ecosystem restoration sites throughout the 492 square mile Duwamish and Green River Basin. The project will create 1900 acres of new habitat and add significant habitat for three Endangered Species Act (ESA) listed species: Bull trout, Steelhead trout and Chinook salmon. Habitat improvements will occur over 200 miles of river and streams with features including stream restoration, levee removal to open up adjacent flood plains, reconnection of abandoned side channels, providing wood and gravel for fish habitat and other restoration actions.

AUTHORIZATION: Section 101 (b) (26) of the Water Resources Development Act of 2000

REMAINING BENEFIT-REMAINING COST RATIO: Not Applicable

TOTAL BENEFIT-COST RATIO: Not Applicable

INITIAL BENEFIT-COST RATIO: Not Applicable

BASIS OF BENEFIT-COST RATIO: Not Applicable

SUMMARIZED FINANCIAL DATA:			ACCUM PCT OF EST FED COST	STATUS (1 Jan 2011)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		\$118,627,000		Entire Project	6%	To Be Determined
Estimated Non-Federal Cost		63,876,000				
Cash Contributions	3,000,000					
Other Costs	60,876,000					
Total Estimated Project Cost		\$182,503,000				

Division: Northwestern

District: Seattle

Duwamish and Green River
Basin, Washington

SUMMARIZED FINANCIAL DATA (Continued)

ACCUM PCT
OF EST FED
COST

Allocations through 30 September 2008	5,182,000	
Allocation for FY 2009	1,915,000	
Allocation for FY 2010	2,456,000	
Recovery Act Allocations To Date	1,645,000	
President's Budget for FY 2011	5,500,000	
Allocations through FY 2011	16,698,000	14%
Budget for FY 2012	2,060,000	16%
Programmed Balance to Complete after FY 2012	99,869,000	
Unprogrammed Balance to Complete after FY 2012	0	

PHYSICAL DATA: Not Applicable

JUSTIFICATION: The Green Duwamish Ecosystem Restoration project (ERP) is critical to restoring habitat for the Chinook salmon, Steelhead, and Bull trout. The importance of the Green Duwamish ERP is reflected in its inclusion as key elements in the Green/Duwamish Salmon Habitat Restoration Plan prepared in response to listing of Chinook salmon under ESA in 1999. Original estimate for the restoration of the basin would take 10 years to complete the \$195 million project. The proposed restoration focuses on improving the overall health of the Duwamish/Green River Basin to over 200 miles of river and streams and 1,900 acres of new habitat, enhancing and restoring fish and wildlife while maintaining existing flood protection within the basin. Of special interest are the habitat needs of the listed endangered species Chinook salmon and Bull trout. Potential projects were proposed and screened by the Watershed Restoration Group, composed of the local sponsor, stakeholders, scientists, and Corps officials. Projects were scored according to an environmental evaluation criteria: 1) effectiveness of project in addressing one or more limiting factors, including barriers to fish passage, reduction in channel forming flows, loss of channel diversity in the lower river, loss of estuarine and floodplain habitat, reduction in large woody debris, loss of sediment sources, and increase in water temperature; 2) scale, size, and effect; 3) technical and political feasibility; and 4) potential for wildlife benefits. Forty five (45) sites were evaluated which incorporated varying levels and degrees of restoration in an incremental cost analysis. The Corps received input to incorporate local needs and direction in the development of site-specific restoration criteria supportive to local goals. Assessing and incorporating the desires of stakeholders into the restoration plan will continue throughout project development. The project is an integral part of a Water Resource Inventory Area (WRIA) 9 recovery plan and a Regional Recovery Plan.

Division: Northwestern

District: Seattle

Duwamish and Green River
Basin, Washington

FISCAL YEAR 2011: The requested amount will be applied as follows:

Award construction contract for Riverview Park	\$3,100,000
Complete design for Big Spring Creek	800,000
Complete design for Mill Creek Wetlands	800,000
Complete design for Main Stem Maintenance (Boeing)	780,000
Monitoring for completed site	<u>20,000</u>
TOTAL	\$5,500,000

FISCAL YEAR 2012: The requested amount will be applied as follows:

Monitoring for completed sites	\$60,000
Execute PPA and award construction contract for Big Spring Creek	<u>2,000,000</u>
TOTAL	\$2,060,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below:

	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, rights of way, and relocations	\$60,876,000	
Pay 35% of the costs allocated to fish and wildlife enhancement, and pay 100% of the costs of operation, maintenance, repair, rehabilitation, and replacement of fish and wildlife facilities.	<u>3,000,000</u>	To Be Determined
Total Non-Federal Costs	\$63,876,000	To Be Determined

Division: Northwestern

District: Seattle

Duwamish and Green River
Basin, Washington

STATUS OF LOCAL COOPERATION: The primary local sponsor of this project has been King County with the full support of local cities; the Muckleshoot Tribe; the Suquamish Tribe; state and local agencies; 16 municipal cities, federal resource agencies, Trout Unlimited and other interested stakeholders. These entities remain active in development of the project.

Project Partnership Agreements (PPAs) have been, or are scheduled to be executed, as follows:

- (1) Meridian Valley site: A Project Cooperation Agreement (PCA) was executed in November 2004 with the City of Kent.
- (2) Lake Meridian Outlet site: A PCA was executed in August 2006 with the City of Kent.
- (3) Site 1: A PPA was executed in July 2009 with King County.
- (4) Upper Springbrook site: A PPA was executed in August 2010 with the City of Renton.
- (5) Riverview Park site: A PPA is scheduled to be executed in May 2011 with the City of Kent.

COMPARISON OF FEDERAL COST ESTIMATE: The current estimated Federal cost of \$118,627,000 is a decrease of \$24,259,000 from the latest estimate of (\$142,886,000) presented to Congress (FY 2011). This change includes the following items.

Item	Amount
Price De-escalation on Construction Features	-\$20,000,000
Price De-escalation on Real Estate	-4,259,000
Total	-\$24,259,000

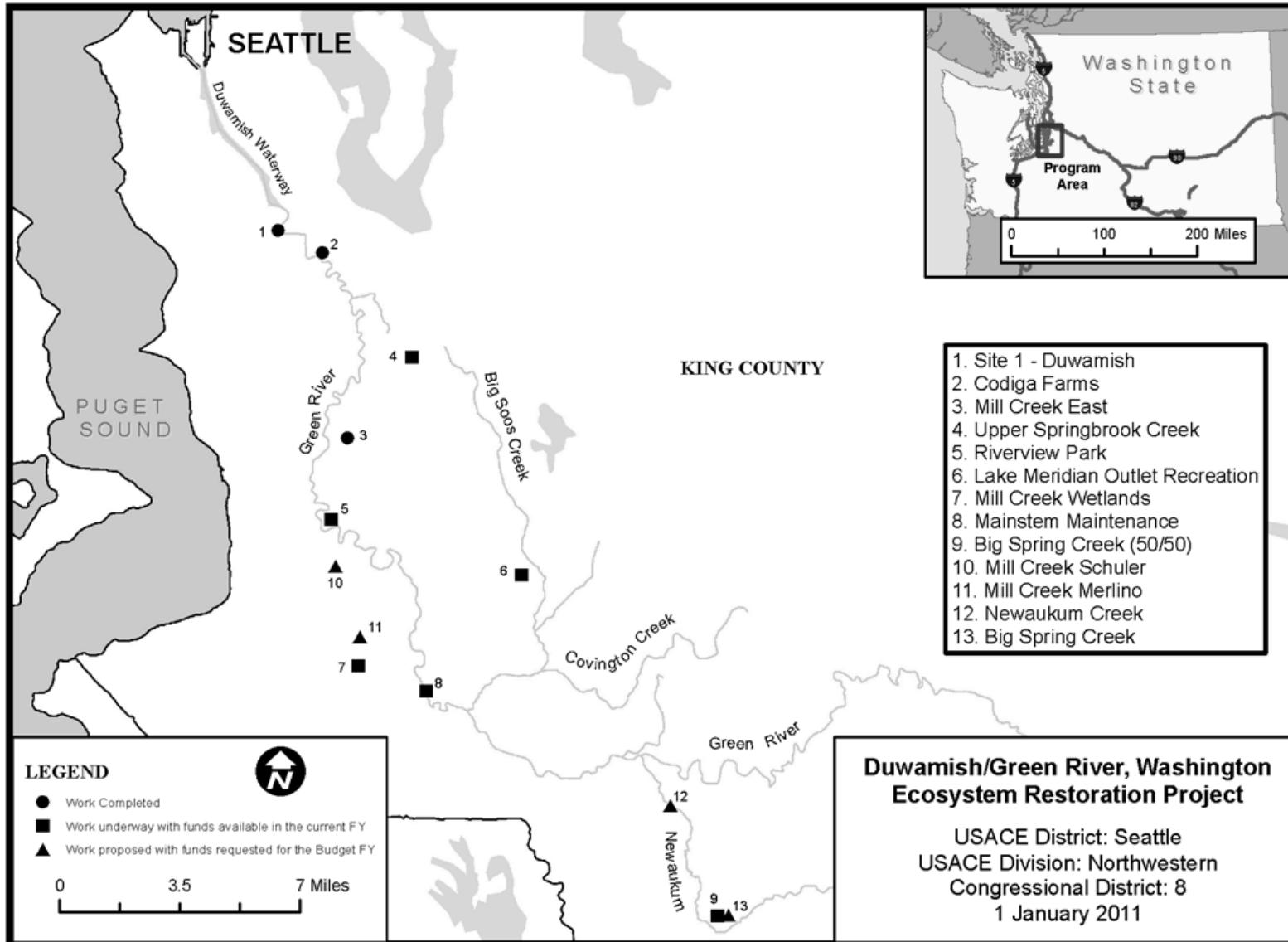
STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Programmatic Environmental Impact Statement was completed in December 2000.

OTHER INFORMATION: The Feasibility Study was completed in November 2000 and the Chief of Engineer's report was signed 29 December 2000. Post construction monitoring between 2 and 10 years was approved for individual sites to ensure project elements achieve desired environmental outputs. Funds to initiate preconstruction engineering and design were appropriated in FY2001. Construction funding was first appropriated in FY2004. The project will restore high quality habitat that has been lost. Several Puget Sound salmon species are listed under the Endangered Species Act. The project will provide a major component for habitat restoration in the Duwamish/Green River Basin to stem declines and begin rebuilding salmon habitat. The project complements other local, state, and federal programs for salmon recovery in the Puget Sound Basin.

Division: Northwestern

District: Seattle

Duwamish and Green River
Basin, Washington



Division: Northwestern

District: Seattle

Duwamish and Green River Basin, Washington

APPROPRIATION TITLE: Construction, Environment, Fiscal Year 2012

PROJECT: Lower Columbia River Ecosystem Restoration, Oregon and Washington (Continuing)

LOCATION: The Lower Columbia River extends from the mouth of the Columbia River to river mile (RM) 145 at Bonneville Lock and Dam. The river divides the states of Oregon and Washington throughout this area.

DESCRIPTION: The study areas include the estuary of the Columbia River and all of the tributaries of the Columbia River that are tidally influenced, which includes the Willamette River up to Willamette Falls. Justification for the project is based on non-monetary quantitative change in fish and wildlife habitat units and other biological benefits. Since benefits are non-monetary, a benefit-to-cost ratio has not been prepared. A comprehensive conservation and management plan was developed for the Lower Columbia River under Section 320 of the Federal Water Pollution Control Act (33 U.S.C. 1330).

AUTHORIZATION: Section 536 of the Water Resources Development Act of 2000 (P. L. 106-541, dated 11 December 2000).

REMAINING BENEFIT - REMAINING COST RATIO: N/A (Environmental restoration project costs are not subject to formal benefit calculations.)

TOTAL BENEFIT-COST RATIO: N/A

BASIS OF BENEFIT-COST RATIO: N/A

SUMMARIZED FINANCIAL DATA:

		ACCUM % OF EST FED COST	STATUS (1 Jan 2011)	PERCENT COMPLETE	COMPLETION SCHEDULE
Estimated Federal Cost	\$30,000,000		Entire Project	44%	To Be Determined
Estimated Non-Federal Cost	4,000,000				
Cash Contributions	TBD				
Total Estimated Project Cost	\$34,000,000				
Allocations through 30 September 2008	9,080,000		PHYSICAL DATA:		
Allocation for FY 2009	1,435,000		Types of projects will include, but not be limited to:		
Allocation for FY 2010	1,559,000		a) creation and restoration of shallow water habitat;		
Recovery Act Allocations to Date	1,018,000		b) restoration of wetlands;		
President's Budget for FY 2011	4,700,000		c) improvements to fish passage;		
Allocations through FY 2011	17,792,000	59%	d) restoration of floodplain functions and other actions		
Budget for FY 2012	4,200,000	73%	to restore the estuary ecosystem		
Programmed Balance to Complete after FY 2012	8,008,000				
Unprogrammed Balance to Complete after FY 2012	0				

Division: Northwestern

District: Portland

Lower Columbia River Ecosystem Restoration
Oregon and Washington

JUSTIFICATION: National Oceanic and Atmospheric Administration (NOAA) Fisheries has identified the Columbia River Estuary as playing a vital role in rebuilding the productivity of Columbia River Basin salmon and steelhead listed under the Endangered Species Act. Over time, this basin has experienced considerable changes in water resource needs and uses. In addition, significant environmental degradation has occurred within the lower Columbia system. Modification of the system by human activities has led to a marked change in the hydrologic regime, and caused pollution and substantial losses of in-stream, riparian and wetland habitats, and a concomitant reduction in fish and wildlife resources. Flood control, water quality, navigation, water-related infrastructure, and ecosystem restoration needs have all been evaluated on a case-by-case basis. Thirteen stocks of anadromous salmonids that reproduce in the Columbia River Basin have been listed as threatened or endangered and they all use the estuary to some extent. Such listings have broad implications to existing water resource uses, and future developments. The 2008 Federal Columbia River Power System (FCRPS) Biological Opinion (BiOp) includes reasonable and prudent actions (RPAs) calling for planning and restoration efforts in the Columbia River estuary to help avoid jeopardy for these listed species. Historic losses of 52,000 acres of wetland/marsh habitats, 13,800 acres of riparian forest habitat and 27,000 acres of forested wetland habitat downstream of Portland have significantly impacted this ecosystem's ability to produce and sustain fish and wildlife resources. Much of this wetland loss can be attributed to the 84,000 acres encompassed by diking districts and the 20,000-acre increase in urban development that has occurred along the lower Columbia River.

The implementation of the Lower Columbia River element of this section 536 legislation will serve as the catalyst to bring together and implement current efforts by a number of governmental and private organizations including the National Estuary Program, six state agencies from Oregon and Washington, four Federal agencies, recreation, ports, industry, agriculture, labor, commercial fishing, environmental interests and citizens to identify and cost share restoration projects.

NON-FEDERAL COSTS: The authorization provides that studies shall be subject to cost sharing in accordance with Section 105 of WRDA 1986 and that restoration projects shall be cost shared at 35% by non-Federal interests, that nonfederal interests shall provide all lands, easements, rights-of-way, dredged material disposal areas, and relocations necessary for the projects to be carried out and that in-kind contributions can not exceed 50% of the non-Federal share. However, the Federal share of projects carried out on Federal lands shall be 100%.

STATUS OF LOCAL COOPERATION: Project Agreements for individual restoration sites are prepared/executed as they are identified.

- (1) Crims Island Site: A Memorandum of Agreement was executed in May 2004 with U.S. Fish and Wildlife Service.
- (2) Columbia River Riparian Site: A Memorandum of Understanding was executed in February 2006 with U.S. Dept. of Agriculture (Forest Service).
- (3) Julia Butler Hanson Site: A Memorandum of Agreement was executed in August 2008 with U.S. Fish and Wildlife Service.
- (4) Oaks Bottom Site: A Feasibility Cost Sharing Agreement is scheduled to be executed in January 2010 with the City of Portland.
- (5) Sandy River Delta Site: A Memorandum of Agreement is scheduled to be executed in September 2011 with U.S. Dept of Agriculture (Forest Service).
- (6) Washington Estuary Sites: A Memorandum of Agreement was executed in September 2009 with Washington State Department of Fish and Wildlife.
- (7) Abernathy Site: A Feasibility Cost Sharing Agreement was executed in July 2010 with Washington State Department of Fish and Wildlife.
- (8) Palensky site: A Memorandum of Agreement is scheduled to be executed in March 2011 with Bonneville Power Administration.
- (9) Ridgefield Wildlife Refuge site: A Memorandum of Agreement is scheduled to be executed in March 2011 with the US Fish and Wildlife Service.
- (10) Multnomah County Drainage District site: A Feasibility Cost Sharing Agreement is scheduled to be executed in May 2011 with the Multnomah County Drainage District.

FISCAL YEAR 2011: The current amount is being applied as follows:

Negotiate cost share agreements and initiate feasibility phase at two sites.....	\$200,000
Continue feasibility and design of projects in pre-construction status.....	\$1,300,000
Design and award Oaks Bottom site construction contract.....	<u>\$3,200,000</u>
Total	\$4,700,000

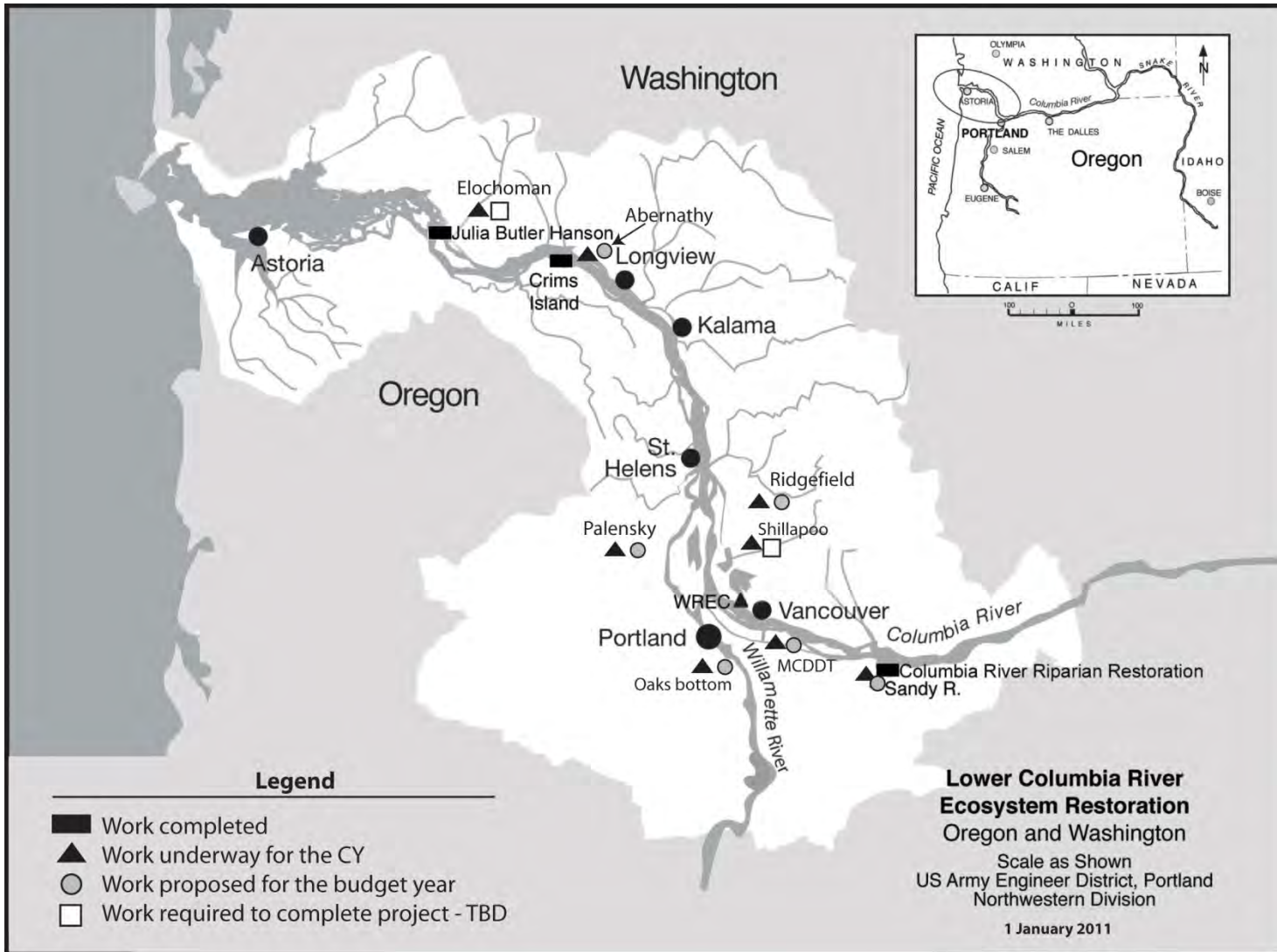
FISCAL YEAR 2012: The requested amount will be applied as follows:

Complete feasibility phase at two sites.....	\$200,000
Construct Sandy River Delta Site.....	\$800,000
Construct Abernathy Site.....	\$1,500,000
Construct Palensky Site.....	\$1,500,000
Complete construction of Oaks Bottom site.....	<u>\$200,000</u>
Total	\$4,200,000

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal cost estimate of \$30,000,000 is increased by \$10,000,000 from the amount last presented to Congress (FY 2011). The new Federal cost estimate represents the authorized appropriation to carry out Section 536 of WRDA 2000 where all the funds will be applied to the Lower Columbia River Ecosystem Restoration projects. Tillamook Bay Ecosystem Restoration referenced in the authorization has been deferred.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An Environmental Impact Statement has not been prepared. NEPA documentation for individual restoration sites is prepared as they are identified.

OTHER INFORMATION: The Lower Columbia River and Tillamook Bay Ecosystem Restoration, Oregon and Washington authority (Section 536 of WRDA 2000) was created in part to help the Corps meet the needs of listed salmon and steelhead using the Columbia River estuary and is one of the primary authorities for meeting requirements in the 2008 Federal Columbia River Power System Biological Opinion (FCRPS BiOp). The BiOp requirements to be met by 2018 include increasing survival of ocean-type species by ten percent and stream-type species by six percent. Types of projects will include, but are not limited to, creation and restoration of shallow water habitat, restoration of wetlands, improvements to fish passage, and restoration of floodplain functions and other actions to restore the estuary ecosystem. Also, the Corps is undertaking a feasibility study, Lower Columbia River Ecosystem Restoration, WA & OR, with a broader geographical scope than this project, and addressing ecosystem issues in addition to salmon recovery.



Division: Northwestern

District: Portland

Lower Columbia River Ecosystem Restoration
Oregon and Washington

APPROPRIATION TITLE: Construction, Environment, Fiscal Year 2012

PROJECT: Lower Snake River Fish and Wildlife Compensation, Washington, Oregon, Idaho (Continuing)

LOCATION: Hatchery sites are located at McCall, Idaho, about 1,500 feet downstream from Payette Lake; Lyons Ferry, Washington, at River Mile 59 on the Snake River; Lookingglass, Oregon, about 10 miles northwest of Elgin, Oregon; Hagerman, Idaho, 10 miles west of Twin Falls, Idaho; Irrigon Hatchery, about 10 miles west of Umatilla, Oregon; Dworshak Expansion, Sawtooth Hatchery about 5 miles south of Stanley, Idaho; Magic Valley Hatchery about 4 miles north of Buhl, Idaho; and Clearwater Hatchery about 5 miles west of Orofino, Idaho. Fishing and hunting access and wildlife habitat lands will be located in Washington and Idaho. The riparian lands are located on the Snake and Columbia River Drainages from the Washington/Oregon border upstream to the confluence with the Clearwater River. This reach includes significant tributaries and their watersheds, including (but not limited to) the Walla Walla, Tucannon, Asotin, Grande Ronde, and Imnaha River basins.

DESCRIPTION: The project purpose is fish and wildlife compensation for construction of the four mainstem dams on the Snake River. The project consists of Chinook and Steelhead hatcheries that will provide 27,000,000 juvenile salmon and steelhead annually. These fish will be released in streams for migration to the Pacific Ocean. Adult salmon and steelhead resulting from these releases will provide both sport and commercial fishing opportunities with over 4 million pounds of fish going to the commercial fisheries and providing approximately 689,000 additional angler days of sport fishing. An estimated 132,000 adult fish will return to the project area of the Snake River. In addition to the anadromous fish, 93,000 pounds of trout will be reared and released in Eastern Washington which will provide 45,000 additional angler days of sport fishing. There will be an aggregate of 24,150 acres in fee or easement for fisherman access, wildlife habitat and hunting access. Additionally, a program has been implemented with Washington State Department of Game to produce the equivalent of 20,000 game birds per year for 20 years. The 1989 Letter of Agreement (LOA) entered into by the U.S. Fish and Wildlife Service (USFWS), U.S. Army Corps of Engineers (COE) and the Washington Department of Fish and Wildlife (WDFW) states that Lower Snake River Fish and Wildlife Plan mitigation, as authorized by Pub. L. 94-587 and Pub. L. 99-662, will be measured on a habitat basis instead of using "animal number replacement" as a basis for measurement. The "Special Report – Lower Snake River Fish and Wildlife Compensation, Wildlife Habitat Compensation Evaluation for the Lower Snake River Project" submitted in June 1991, concluded that, "Current habitat conditions of project lands do not contribute significantly to meeting compensation goals..." This project will restore 1,916 acres of project forbland; 3,285 acres of project woody riparian land; and 24,271 acres of project grass/shrub steppe land to pre-project conditions. Additional project restoration effort would include creation of small forested islands and shallows which would provide the additional benefit of creating substantial natural salmon spawning and rearing habitat. Consequently, significant consideration and effort will be given to protecting, preserving and perpetuating natural salmon spawning and rearing habitat which is a significant beneficiary of woody riparian lands.

AUTHORIZATION: Water Resources Development Act of 1976 as modified by the Water Resources Development Act of 1986.

REMAINING BENEFIT-REMAINING COST RATIO: Not Applicable. Mitigation is incrementally justified through consideration of costs and non-monetary benefits.

TOTAL BENEFIT-COST RATIO: Not Applicable.

BASIS OF BENEFIT COST RATIO: Not Applicable.

Division: Northwestern

District: Walla Walla

Lower Snake River Fish and Wildlife Compensation,
WA, OR, ID

SUMMARIZED FINANCIAL DATA

		ACCUM PCT. OF EST FED COST	STATUS: (1 Jan 2011)	PERCENT COMPLETE	COMPLETION SCHEDULE
Estimated Appropriation Requirements	\$261,000,000		Entire Project	93	2018
Future Non-Federal Reimbursement	253,307,000		Wildlife Compensation	100	Sep 2002
Estimated Federal Cost (Ultimate)	7,693,000		Fish Facility	95	2011
Estimated Non-Federal Cost	253,530,000		Lands	100	Sep 1994
Cash Contributions	\$ 223,000		Habitat Restoration	87	2018
Reimbursements	253,307,000				
Power	\$253,307,000				
Total Estimated Project Cost	261,223,000				
Allocations through 30 September 2008	238,251,000				
Allocation for FY 2009	1,435,000				
Allocation for FY 2010	1,417,000				
Recovery Act Allocations To Date	0				
President's Budget for FY 2011	1,500,000				
Allocations through FY 2011	242,603,000	93			
Budget for FY 2012	1,500,000	93			
Programmed Balance to Complete after FY 2012	16,897,000				
Unprogrammed Balance to Complete after FY 2012	0				

PHYSICAL DATA

Capacity of Hatcheries	Acquisition of 24,150 acres for fisherman access and wildlife compensation and improvement of land for wildlife compensation.
9,160,000 Fall Chinook Smolts - 101,800 lbs.	
6,750,000 Spring and Summer Chinook Smolts - 450,000 lbs.	
11,020,000 Summer Steelhead - 1,377,500 lbs.	Restore 1,916 acres of project forbland, 3,285 acres of project woody riparian land, and 24,271 acres of project grass/shrub steppe land to pre-project conditions.
93,000 lbs. Of Resident Sport Fishery	

JUSTIFICATION: The project will provide for losses to fish and wildlife resources caused by construction and operation of the four dams (Ice Harbor, Lower Monumental, Little Goose, and Lower Granite) constituting the Lower Snake River Project, authorized by P.L. 79-14, as is required by the Fish and Wildlife Coordination Act (16 U.S.C. 661 et seq.) in accordance with the requirements of the Lower Snake River Fish and Wildlife Compensation Plan negotiated in accordance therewith and subsequently authorized by P.L. 94-587 and P.L. 99-662.

Division: Northwestern

District: Walla Walla

Lower Snake River Fish and Wildlife Compensation,
WA, OR, ID

FISCAL YEAR 2011: Funds are being applied as follows:

Initiate P&S for woody riparian habitat restoration for multiple sites and initiate pre-construction monitoring and new construction contracts for additional woody riparian habitat restorations.		\$1,000,000
Complete monitoring and alternative analysis for aquatic ecosystem restoration at multiple sites.		<u>500,000</u>
	Total	\$1,500,000

FISCAL YEAR 2012: The requested amount will be applied as follows:

Complete P&S for the Willow Bar site		\$800,000
Complete P&S for the Swift Bar site		300,000
Initiate pre-construction monitoring for the Ayers site		<u>400,000</u>
	Total	\$1,500,000

NON-FEDERAL COSTS: Costs allocable to power presently estimated at \$253,307,000 are reimbursable. This project is a part of the Federal Columbia River Power System. Bonneville Power Administration (BPA), the Federal marketing agency, establishes system rate levels adequate to recover all capital investment costs for generating projects (including Corps generating projects) within a 50-year period and to repay annual OM&R and interest expenses. BPA submits an annual financial statement to Congress, as required by law, on repayment and periodically recommends rate adjustments as required for meeting repayment obligations. In addition, a cash contribution to expand the Lyons Ferry Hatchery (\$223,000) has been furnished.

STATUS OF LOCAL COOPERATION: None required for construction.

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal cost estimate of \$261,000,000 is the same as last presented to Congress (FY 2011).

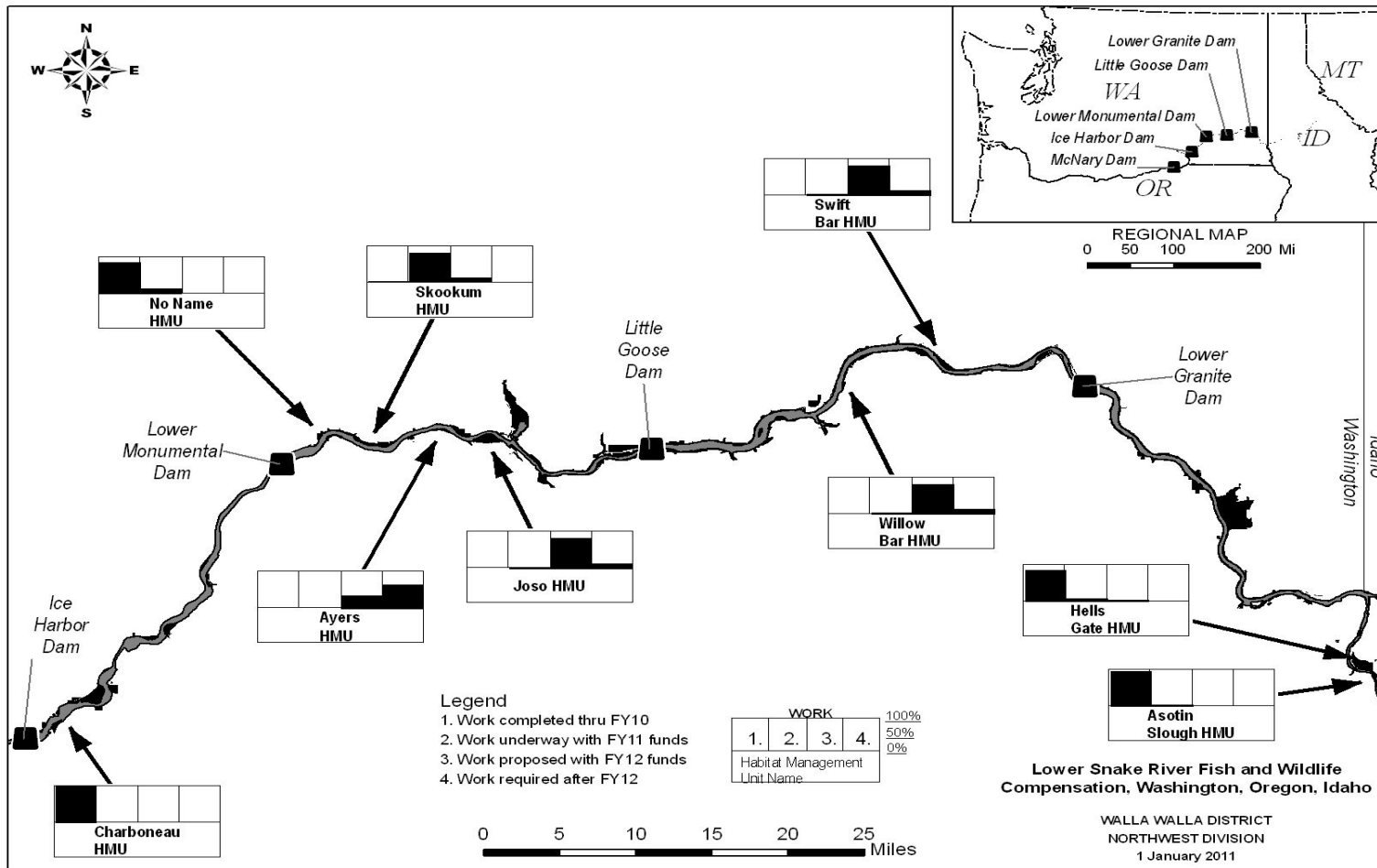
STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement was filed with the Council on Environmental Quality on 29 October 1977. Additional Environmental documentation pursuant to NEPA will be accomplished as necessary. Consultations with the National Marine Fisheries Service will be held and biological assessments prepared as necessary to conform with requirements of the Endangered Species Act.

OTHER INFORMATION: Funds to initiate preconstruction planning were appropriated in Fiscal Year 1978 and for construction in Fiscal Year 1979.

Division: Northwestern

District: Walla Walla

Lower Snake River Fish and Wildlife Compensation,
WA, OR, ID



Division: Northwestern

District: Walla Walla

Lower Snake River Fish and Wildlife Compensation, WA, OR, ID

14 February 2011

NWD-69

APPROPRIATION TITLE: Construction, Environment, Fiscal Year 2012

PROJECT: Missouri River Fish and Wildlife Recovery, Iowa, Kansas, Missouri, Montana, Nebraska, North Dakota, South Dakota, and Tributaries (Continuing)

LOCATION: The Missouri River mainstem and its tributaries.

DESCRIPTION: Within the Missouri River basin, planned activities will recover and provide protection to federally listed species under the Endangered Species Act, and the ecosystems on which they depend, to address the effects of the operation of the Missouri River Mainstem Reservoir System, the Missouri River Bank Stabilization and Navigation Project, and the Kansas River Project. Between Sioux City Iowa and the mouth of the Missouri River, planned activities will also provide for mitigation of losses to fish and wildlife habitats specifically resulting from the construction and operation of the Missouri River Bank Stabilization and Navigation Project.

AUTHORIZATION: All existing authorized Corps of Engineers projects along the Missouri River and tributaries - including the Water Resources Development Acts of 1986, 1988, 1999, and 2007; National Industrial Recovery Act of 1933; Flood Control Acts of 1938, 1944, 1954; River and Harbor Act of 1945; as amended.

REMAINING BENEFIT - REMAINING COST RATIO: Not applicable.

TOTAL BENEFIT-COST RATIO: Not applicable.

INITIAL BENEFIT-COST RATIO: Not applicable.

BASIS OF BENEFIT-COST RATIO: Not applicable

SUMMARIZED FINANCIAL DATA:		ACCUM PCT OF EST FED COST	Status (1 Jan 2011)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	\$3,739,687,000		Entire Project	11	To Be Determined
Estimated Non-Federal Other Costs	0				
Total Estimated Project Cost	3,739,687,000				
Allocations through 30 September 2008	296,899,000				
Allocation for FY 2009	57,418,000				
Allocation for FY 2010	56,686,000				
Recovery Act Allocations To Date	8,042,000				
President's Budget for FY 2011	78,400,000				
Allocations through FY 2011	497,445,000	13			
Budget for FY 2012	72,888,000	15			
Programmed Balance to Complete after FY2012	3,169,354,000				
Unprogrammed Balance to Complete after FY2012	0				

Division: Northwestern

District: Omaha/Kansas City

Missouri River Fish and Wildlife Recovery,
IA, KS, MO, MT, NE, ND, SD, and Tributaries

JUSTIFICATION: The USFWS 2003 Amended Biological Opinion concluded that the Corps' operation of the Missouri River Mainstem Reservoir System, Bank Stabilization and Navigation Project, and Kansas River Project jeopardizes the continued existence of the endangered pallid sturgeon. Funding will be used to implement elements of the Reasonable and Prudent Alternative to Jeopardy for the pallid sturgeon, and actions necessary to preclude jeopardizing the endangered interior least tern and threatened piping plover. These measures to avoid jeopardy to the listed species include enhanced and accelerated shallow water habitat construction and floodplain connection for the pallid sturgeon, enhanced emergent sandbar habitat construction for nesting tern and plover, additional pallid sturgeon propagation support, more comprehensive population assessment for the three species, an intensive research, monitoring and evaluation program for the species, and an adaptive management strategy that includes participation with the USFWS in a Missouri River Recovery Implementation Committee including diverse stakeholder participation.

Below Sioux City, the project will restore and/or preserve natural ecosystem functions of the Missouri River floodplain. Terrestrial habitats will include wetlands, prairie grass and bottomland hardwood plantings. Some existing levees will be relocated away from the river or breached to reconnect the floodplain. Chutes and backwater areas will be excavated or dredged and river banklines modified to increase aquatic habitats and riverine diversity. As originally conceived, the program would establish approximately 120 individual mitigation sites, over time creating a riparian corridor. Lands required for implementation will be acquired from willing sellers to the maximum extent possible.

FISCAL YEAR 2011: The current amount is being applied to first address the highest priority efforts to comply with the USFWS BiOp requirements followed by critical mitigation efforts below Sioux City. Selected mitigation sites will also be prioritized to also best respond to overlapping requirements of the BiOp. Construction work for the Lower Yellowstone Intake project will continue in FY 2011. Current estimated execution plan includes effort as follows:

Item	Amount
Program Management Activities	\$ 4,000,000
Lower Yellowstone Intake	12,000,000
Endangered Species Research and Evaluation	8,000,000
MRERP Study/MRRIC Coordination	4,000,000
Shallow Water Habitat Construction	31,400,000
Emergent Sandbar Habitat (terns and plovers)	9,000,000
Real Estate Acquisition	<u>10,000,000</u>
Total	\$78,400,000

Division: Northwestern

District: Omaha/Kansas City

Missouri River Fish and Wildlife Recovery,
IA, KS, MO, MT, NE, ND, SD, and Tributaries

FISCAL YEAR 2012: The requested amount will be applied to first address the highest priority efforts to comply with the USFWS BiOp requirements followed by critical mitigation efforts below Sioux City. Selected mitigation sites will also be prioritized to also best respond to overlapping requirements of the BiOp. Construction work for the Lower Yellowstone Intake project will complete in FY 2012. Current estimated execution plan includes effort as follows:

Item	Amount
Program Management Activities	\$ 4,340,000
Lower Yellowstone Intake	990,000
Endangered Species Research and Evaluation	13,690,000
MRERP Study/MRRIC Coordination	4,000,000
Shallow Water Habitat Construction	24,685,000
Cottonwood Habitat	270,000
Emergent Sandbar Habitat (terns and plovers)	13,613,000
Real Estate Acquisition	<u>11,300,000</u>
Total	\$72,888,000

NON-FEDERAL COSTS: Not applicable

STATUS OF LOCAL COOPERATION: Endangered Species recovery is a Federal responsibility. The 1986 and 1999 authorizing acts for the mitigation below Sioux City provides that the entire cost of the project, including all lands, easements, rights-of-way, and relocations, and all operation and maintenance costs be borne by the Federal Government with no costs to either local or state governments. Therefore, there is no non-Federal sponsor for the project.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal estimate of \$3,739,687,000 is the same as last presented to Congress (FY 2011).

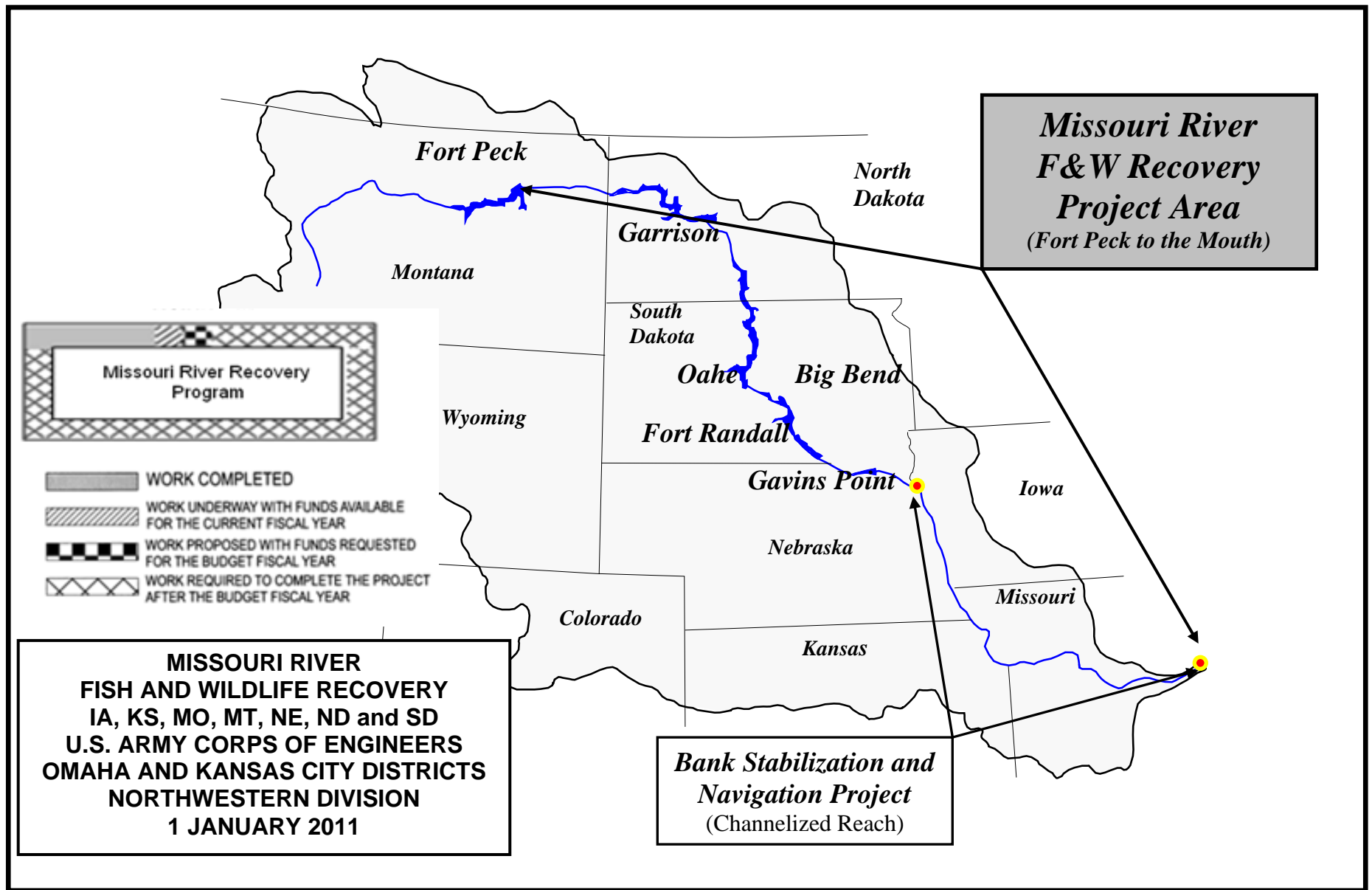
STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The 2003 Amended Biological Opinion was prepared in response to the Corps' proposed revision of the Missouri River Master Water Control Manual as discussed in the supporting NEPA documents. However, the scope of the Amended Biological Opinion is broader than dam operations. Both programmatic and site-specific NEPA documents are being prepared to fulfill NEPA responsibilities for compliance with the 2003 Amended Biological Opinion. The Missouri River Mitigation Project Final Environmental Impact Statement was filed with the U.S. Environmental Protection Agency on 23 December 1982. A supplement to the EIS was completed to allow acquisition and habitat development on the 118,650 acres authorized in WRDA 1999. The Record of Decision was signed 12 Jun 03.

OTHER INFORMATION: Funds to initiate pre-construction engineering and design of the mitigation project (BSNP) were appropriated in FY 1990. Initial construction funds for the mitigation project (BSNP) were appropriated in FY 1992. Funding for the combined ESA and mitigation efforts, Missouri River Fish and Wildlife Recovery, were first appropriated in FY 2005.

Division: Northwestern

District: Omaha/Kansas City

Missouri River Fish and Wildlife Recovery,
IA, KS, MO, MT, NE, ND, SD, and Tributaries



Division: Northwestern

District: Omaha/Kansas City

Missouri River Fish and Wildlife Recovery, IA, KS, MO, MT, NE, ND, SD, and Tributaries

HYDROPOWER

CONSTRUCTION

APPROPRIATION TITLE: Construction, Hydropower, Fiscal Year 2012

PROJECT: Columbia River Treaty Fishing Access Sites, Oregon and Washington (Continuing)

LOCATION: Thirty-two sites located along the Columbia River on Bonneville Pool, John Day Pool, and The Dalles Pool.

DESCRIPTION: The project includes land acquisition and access facility development on Bonneville, The Dalles and John Day pools and redevelopment of Celilo Village on The Dalles Pool. The intent is to provide "equitable satisfaction" of the United States government's commitment to replace usual and accustomed fishing sites inundated by construction of the Bonneville Dam. In 1855, the Tribes reserved the right to access and fish at usual and accustomed sites through treaties. The United States Supreme Court upheld these rights in 1905 and again in 1919. The improvements will include access roads, camping facilities, boat ramps and docks, sanitation and support facilities. Upon improvement, the land and improvements will be transferred to the U.S. Department of Interior for operation and administration on behalf of the Tribes.

AUTHORIZATION: Public Law 100-581 Title IV, as amended by Public Law 104-109, Public Law 104-303, Public Law 106-541, and Public Law 108-204.

REMAINING BENEFIT - REMAINING COST RATIO: N/A Economic justification is not required. This project is specifically authorized in PL 100-581 to mitigate Bonneville Project impact on the treaty fishing access on the Columbia River.

TOTAL BENEFIT-COST RATIO: N/A

THE INITIAL BENEFIT - COST RATIO: N/A

BASIS OF BENEFIT-COST RATIO: N/A

SUMMARIZED FINANCIAL DATA

	ACCUM % OF EST FED COST	STATUS (1 Jan 2011)	PERCENT COMPLETE	COMPLETION SCHEDULE
Estimated Appropriation Requirement	\$103,827,000	Entire Project	96%	To Be Determined
Future Non-Federal Reimbursement	0			
Estimated Federal Cost (Ultimate)	0			
Estimated Non-Federal Cost	0			
Total Estimated Project Cost	\$103,827,000			

PHYSICAL DATA:
Improvements: Access roads, utilities, and camping facilities.

Division: Northwestern

District: Portland

Columbia River Treaty Fishing Access Sites,
Oregon and Washington

SUMMARIZED FINANCIAL DATA (continued)

Allocations through 30 September 2008	78,842,000		
Allocation for FY 2009	5,125,000		
Allocation for FY 2010	472,000		
Recovery Act Allocations to Date	16,538,000		
President's Budget for FY 2011	500,000		
Allocations through FY 2011	101,477,000	1/	98%
Budget for FY 2012	2,000,000		99%
Programmed Balance to Complete after FY 2012	350,000		
Unprogrammed Balance to Complete after FY 2012	1,150,000	2/	

1/ Includes \$10,422,000 transferred to Department of Interior for operation and maintenance of the completed sites.

2/ includes potential Capitalization payments due to BIA upon rescission of shared use agreement at Avery, WA, Sundale, WA, and LePage, OR sites.

JUSTIFICATION: In 1855, Indian Tribes of the Pacific Northwest entered into treaties with the United States. They ceded title to lands in the Columbia Basin and reserved the non-reservation treaty right to access the Columbia River and to take fish at "usual and accustomed" fishing places. In the 1930's, the United States constructed Bonneville Dam which inundated 37 of the treaty protected "usual and accustomed" sites. In accordance with a 1939 agreement between the War Department and the Indian Tribes, the United States was to provide 400 acres of land at six sites from Bonneville Dam to The Dalles, Oregon. Under subsequent authority the United States provided five sites totaling approximately 40 acres. In hearings held by the United States Senate Select Committee on Indian Affairs, Congress acknowledged the inequity and later enacted Public Law 100-581, Title IV - Columbia River Treaty Fishing Access Sites. The project provides "equitable satisfaction" of the United States government's commitment to replace those lands inundated by construction of the Bonneville project in accordance with the authorizing legislation.

NON-FEDERAL COSTS: Fully Federal funded.

STATUS OF LOCAL COOPERATION: N/A

FISCAL YEAR 2011: The current amount is being applied as follows:

Prepare Project Close-out Report..... \$500,000

FISCAL YEAR 2012: The requested amount will be applied as follows:

Transfer BIA Capitalization Payments for final two access sites (Dallesport, WA and Wyeth, OR)..... \$1,150,000

Transfer BIA Final Capitalization Payments 850,000

Total \$2,000,000

Division: Northwestern

District: Portland

Columbia River Treaty Fishing Access Sites,
Oregon and Washington

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal cost estimate of \$103,827,000 is a decrease of \$12,970,000 from the latest estimate (\$116,797,000) presented to Congress (FY 2011).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Draft Environmental Assessment indicates the potential environmental impacts from the development are minor. The Environmental Assessment was completed and a Finding of No Significant Impact was signed in April 1995.

OTHER INFORMATION: The four Federally recognized Indian tribes include the Nez Perce Tribe of Idaho, the Confederated Tribes of the Umatilla Indian Reservation, the Confederated Tribes of the Warm Springs Reservation of Oregon, and the Confederated Tribes of the Yakima Indian Nation. The Evaluation Report and the Post Authorization Change Report indicated that the recommended project is technically sound, cost effective, environmentally acceptable, and complies with applicable Corps of Engineers' procedures and regulations. However, the Post Authorization Report notified Congress of required changes to the boundaries or locations of 19 sites to improve constructability. Specific legislative language is included in Public Law 104-303. Also, the views of interested parties, including federal, state, and local agencies, have been considered. On 23 June 1995, a Memorandum of Understanding was signed between ASA(CW) and Bureau of Indian Affairs (BIA) for the Corps to fund, in advance, the capitalized costs for long-term O&M for all sites. Public Law 104-109 authorizes transfer of funds to Department of Interior to be used for operation and maintenance of improved sites. In December 2000 Public Law 106-541 amended the project authorization to increase the acquisition limit from \$2 million to \$4 million. In March 2004, Public Law 108-204 amended the project authorization to include rehabilitation of Celilo Indian Village, Oregon.

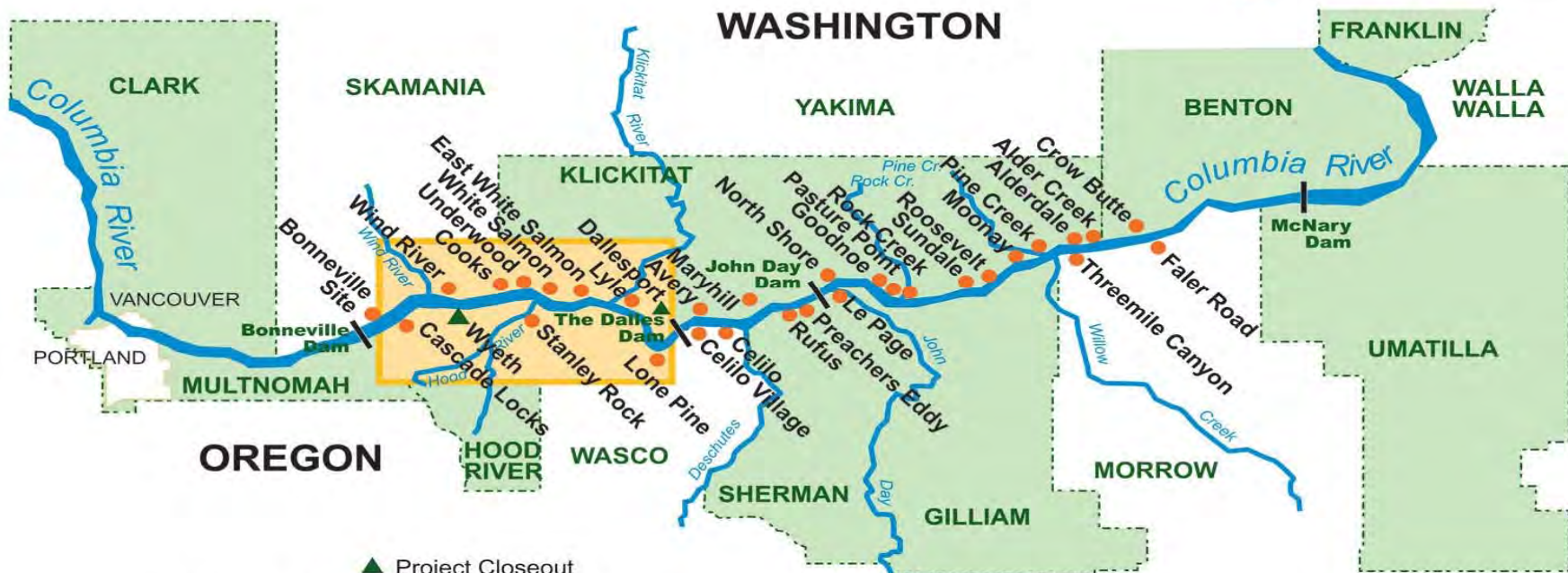
Division: Northwestern

District: Portland

Columbia River Treaty Fishing Access Sites,
Oregon and Washington

14 February 2011

NWD-78



Legend

- Project Closeout Report Preparation
- Site Construction Complete
- Work Proposed for the Budget FY

Columbia River Basin
**Columbia River
 Treaty Fishing Access Sites**
 Oregon and Washington
 US Army Engineer District, Portland
 Northwestern Division
 1 January 2011

OPERATION AND MAINTENANCE

Key to Abbreviations:

N = Navigation
FRM = Flood Risk Management
Rec = Recreation
Hydro = Hydropower
ES = Environmental Stewardship
WS = Water Supply

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Albeni Falls Dam, ID

AUTHORIZATION: Construction of a multipurpose dam and powerhouse was authorized by the Flood Control Act of 1950 (Public Law 516, 81st Congress, Second Session with reference to Senate Doc 9, 81st Congress, 1st Session) Navigation, hydroelectric power and flood control are authorized under Public Law 81-516. Recreation was authorized in the Flood Control Act of 1944, Section 4 (PL 78-534).

LOCATION AND DESCRIPTION: : Albeni Falls Dam is located 26 miles west of Sandpoint, Idaho and 4 miles east of Newport, WA., near the Washington/Idaho border on the Pend Oreille River in Bonner County, ID. The dam is a 90-foot-high concrete gravity, gate-controlled structure with a spillway 472 feet long. Overall length, including the non-overflow abutment section, is 755 feet. Ten spillway gates are the vertical lift roller-chain type. The powerhouse contains three Kaplan turbines and generators for a total installed rated capacity of 42,600 kilowatts. The project is multi-purpose, providing flood control, power generation, and regulation of stream flow for 15 downstream federal and non-federal hydroelectric projects. Lake Pend Oreille water storage seasonally augments flows on the Columbia and Pend Oreille Rivers for power production downstream. Other purposes include navigation, recreation, and fish and wildlife conservation.

RECOVERY ACT ALLOCATIONS TO DATE: \$2,473,000

PRESIDENT'S BUDGET FOR FY 2011: T: \$1,512,000

BUDGET FOR FY 2012: M: \$478,000.00 O: \$926,000 T: \$1,404,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by B/L as needed) FOR FY 2012:

N: \$31,000 Albeni Falls Project provides flow augmentation for downstream navigation interests.

FRM: \$16,000 Albeni Falls provides flood protection for upstream interests.

Rec: \$1,313,000 Albeni Falls has four major recreation areas and two day-use areas, with the largest campground program in Seattle District. The bulk of our budget is targeted for operating and maintaining recreation areas safely for public use. This includes hiring park attendants; recreation area garbage collection and grounds maintenance; utilities for all the facilities; maintaining the grounds, campsites, and beaches; water safety activities; and security for our visitors. A Class B Visitor Center with interpretive displays, restrooms, a theatre, and viewing areas is also operated and maintained.

Hydro: N/A

ES: \$44,000 Albeni Falls must assure compliance with environmental mandates and legal requirements in areas such as Mitigation Compliance, Endangered Species Protection, Cultural Resources Management, Healthy & Sustainable Lands and Waters, Level One Natural Resources Inventory Completion, and Master Plan Completion.

WS: N/A

OTHER INFORMATION: N/A

Division: NWD

District: NWS

Project Name: Albeni Falls Dam, ID

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Applegate Lake, OR

AUTHORIZATION: PL 87-874, 1962 Flood Control Act

LOCATION AND DESCRIPTION: Near River Mile 46.5 on the Applegate River, 23.5 miles south of Medford, Oregon. Flood reduction, rock-fill embankment dam, 1300-ft long & 242-ft high, gate controlled concrete spillway on left abutment, regulating outlet conduit & intake tower with multi-level intakes and reservoir.

RECOVERY ACT ALLOCATIONS TO DATE: \$ 1,495,000

PRESIDENT'S BUDGET FOR FY2011: \$ 1,298,000

BUDGET FOR FY2012: M: \$ 65,000 O: \$ 866,000 T: \$ 931,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$ 0 - N/A

FRM: \$ 682,000 – Critical operation & maintenance of flood control dam, reservoir, service facilities, and permanent operating equipment.

REC: \$ 0 - N/A

Hydro: \$ 0 - N/A

ES: \$ 249,000 - Critical routine operation & maintenance to meet mitigation requirements for fish passage facilities & natural resource management and ESA mandates.

WS: \$ 0 - N/A

OTHER INFORMATION: N/A

Division: NWD

District: NWP

Project Name: Applegate Lake, OR

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Bear Creek Dam & Lake, CO

AUTHORIZATION: PL 90-483, PL 89-72.

LOCATION AND DESCRIPTION: Bear Creek Dam is located in the Denver metropolitan area on the southwest edge of Lakewood at the confluence of the Bear Creek and Turkey Creek. Construction was authorized in 1968 and was completed in 1982. The dam consists of two segments commonly referred to as the Main Embankment and the South Embankment. The main embankment measures 5,300 feet in length and has a maximum height of 179.5 feet; and the south embankment measures 2,100 feet in length with a maximum height of 65 feet. The reservoir impounded by the dam is 0.5 miles long with a maximum depth of 48 feet at the dam. The primary purpose of the dam is flood damage reduction. Fish and wildlife, and recreation are also authorized purposes.

RECOVERY ACT ALLOCATIONS TO DATE: \$125,000

PRESIDENT'S BUDGET FOR FY2011: \$ 647,000

BUDGET FOR FY2012: M: \$ 171,000 **O:** \$ 398,000 **T:** \$ 569,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY2012:

N: N/A

FRM: \$522,000 - Funding will be used to meet the O&M requirements of the Flood Risk Management mission. Activities include performing routine critical operations and maintenance required to operate the project, necessary engineering, oversight, inspection and monitoring to assure continued safe operation of the project. Non-routine work includes rehabilitation of marine access door in dome structure.

Rec: \$7,000 - Funding will allow the Corps to meet minimum O&M requirements for providing quality public outdoor recreation experiences for the public. Specifically the funding will provide for the minimum real estate management needs of the project.

Hydro: N/A

ES: \$40,000 – Funding will be used to meet the O&M requirements of the Environmental Stewardship mission. In an effort to manage and conserve natural resources, consistent with ecosystem management principles, routine and non-routine activities for this year will include natural resource inventories, special status species monitoring, invasive species control (both pest and noxious weed), implementation of mitigation requirements, enhancement actions, shoreline management activities, real estate use evaluations management plan updates.

WS: N/A

OTHER INFORMATION: N/A

Division: NWD

District: NWO

Project Name: Bear Creek Dam & Lake, CO

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Big Bend Dam & Lake Sharp, SD

AUTHORIZATION: PL 78-534, PL 93-205.

LOCATION AND DESCRIPTION: The Big Bend Project is located northwest of Chamberlain, South Dakota, on South Dakota Highway 47, near Ft. Thompson, South Dakota. Construction on the dam began in 1959 and closure of the embankment occurred in 1963. The dam measures 10,570 feet in length and has a maximum height of 95 feet. Lake Sharpe extends 80 miles upstream, creates 200 miles of shoreline, and has a maximum depth of 78 feet at the dam. The water in Lake Sharpe is stored for flood damage reduction, power generation, navigation, fish and wildlife, recreation, irrigation, water supply, and water quality.

RECOVERY ACT ALLOCATIONS TO DATE: \$3,207,000

PRESIDENT'S BUDGET FOR FY2011: T: \$9,768,000

BUDGET FOR FY2012: M: \$2,464,000 O: \$5,821,000 T: \$8,285,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY2012:

N: N/A

FRM: N/A

Rec: \$757,000 – Funding will allow the Corps to meet minimum Recreation business line O&M requirements for providing quality public outdoor recreation experiences for the public. Routine activities will include recreation management, interpretive services, public outreach, visitor assistance program implementation, Title 36 enforcement, reservation services support, recreation use fee management, and completion of updates to required Master and/or management plans.

Hydro: \$6,406,000 – The funding will fulfill the requirements of the operation and maintenance plan for the project to the extent possible, which includes operation and maintenance of the hydroelectric power plant, power transmission facilities and associated water control structures, dam safety monitoring, studies and inspections, reservoir scheduling and real estate management activities. Major non-routine work includes work to meet NERC standards, and replacement of plant oil purification system.

ES: \$1,022,000 – Funding will be used to meet the O&M requirements of the Environmental Stewardship mission. In an effort to manage and conserve natural resources, consistent with ecosystem management principles, routine and non-routine activities for this year will include natural resource inventories, special status species monitoring, invasive species control (both pest and noxious weed), implementation of mitigation requirements, enhancement actions, shoreline management activities, real estate use evaluations and Master and/or management plan updates.

WS: \$100,000 - O&M studies for water supply to develop surplus water storage agreements for intakes that withdraw water for municipal and industrial purposes. Work is required to bring District into compliance with law.

OTHER INFORMATION: N/A

Division: NWD

District: NWO

Project Name: Big Bend Dam & Lake Sharp, SD

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Blue River Lake, OR

AUTHORIZATION: P.L. 81-51, 1950 Flood Control Act

LOCATION AND DESCRIPTION: On Blue River, 38 miles east of Eugene, Oregon. Rock-fill embankment dam 1420-ft long, 319-ft high, spillway 70-ft long, outlet works in left abutment, earth & gravel-fill dike 1535-ft long between Blue & McKenzie Rivers & Reservoir, and recreation.

RECOVERY ACT ALLOCATIONS TO DATE: \$ 1,439,000

PRESIDENT'S BUDGET FOR FY2011: \$ 573,000

BUDGET FOR FY2012: M: \$ 55,000 O: \$ 506,000 T: \$ 561,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$ 0 - N/A

FRM: \$ 474,000 - Critical operation & maintenance of flood control dam, reservoir, service facilities, and permanent operating equipment.

REC: \$ 21,000 – Critical routine operation & maintenance of recreational activities and management of all recreational lands and facilities.

Hydro: \$ 0 - N/A

ES: \$ 66,000 - Critical routine operation & maintenance to meet mitigation requirements for fish passage facilities & natural resource management and ESA mandates.

WS: \$ 0 - N/A

OTHER INFORMATION: N/A

Division: NWD

District: NWP

Project Name: Blue River Lake, OR

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Bonneville Lock and Dam, OR & WA

AUTHORIZATION: 1933 WPA project, 1935 PL. 409 and 1950 Flood Control Act PL. 81-516

LOCATION AND DESCRIPTION: On Columbia River, 42 miles east of Portland, Oregon; Multi-purpose w/power; 1 Dam, spillways and fish passage; 1 Navigation Lock, 2 Powerhouses w/ 20 generation units; regional visitor center and recreation areas.

RECOVERY ACT ALLOCATIONS TO DATE: \$ 7,920,000

PRESIDENT'S BUDGET FOR FY2011: \$ 7,487,000

BUDGET FOR FY2012: **M:** \$1,895,000 **O:** \$4,745,000 **T:** \$ 6,640,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$ 3,387,000 – Critical minimum navigation lock operations & maintenance including periodic navlock inspections. Includes Joint allocation.

FRM: \$ 0 - N/A

REC: \$ 1,786,000 - Critical routine operation & maintenance of recreational activities and management of all recreational lands and facilities.

Hydro: \$ 0 – Costs have been allocated to the appropriate business line. Routine operation and maintenance of Hydropower plant is Power Marketing Agency direct funded.

ES: \$ 1,467,000 – Critical routine operation & maintenance to meet mitigation requirements for fish passage facilities & natural resource management and ESA mandates.

WS: \$ 0 - N/A

OTHER INFORMATION: N/A

Division: NWD District: NWP Project Name: Bonneville Lock and Dam, OR & WA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Bowman Haley Dam & Lake, ND

AUTHORIZATION: PL 87-874

LOCATION AND DESCRIPTION: Located 11 miles south of Bowman, North Dakota on highway 85 then 5 miles east, Bowman-Haley Dam was constructed for flood damage reduction, fish and wildlife enhancement, recreation, as well as municipal and industrial water supply. Construction of the dam began in June 1964 and was completed in 1966. The dam measures approximately 5,730 feet in length, with a maximum height of 79 feet from the stream bed to the top of the dam. Bowman-Haley Lake formed at the confluence of Spring Creek, Alkali Creek, and North Fork Grand River; has 17 miles of shoreline and an average depth of 39 feet.

RECOVERY ACT ALLOCATIONS TO DATE: \$218,000

PRESIDENT'S BUDGET FOR FY2011: \$246,000

BUDGET FOR FY2012: M: \$2,000 **O:** \$149,000 **T:** \$151,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY2012:

N: \$0 – N/A

FRM: \$109,000 - Funding will be used to meet the O&M requirements of the Flood Risk Management mission. Activities include performing routine critical operations and maintenance required to operate the project, necessary engineering, oversight, inspection and monitoring to assure continued safe operation of the project.

Rec: \$0 – N/A

Hydro: \$0 – N/A

ES: \$42,000 - Funding will be used to meet the O&M requirements of the Environmental Stewardship mission. In an effort to manage and conserve natural resources, consistent with ecosystem management principles, routine and non-routine activities for this year will include natural resource inventories, special status species monitoring, invasive species control (both pest and noxious weed), implementation of mitigation requirements, enhancement actions, shoreline management activities, real estate use evaluations and Master and/or management plan updates.

WS: \$0 -

OTHER INFORMATION: N/A

Division: NWD

District: NWO

Project Name: Bowman Haley Dam & Lake, ND

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Chatfield Dam & Lake, CO

AUTHORIZATION: PL 81-516, PL 99-662, PL 89-72, PL 93-251

LOCATION AND DESCRIPTION: Chatfield Dam is located in the Denver metropolitan area southwest of Denver on the South Platte River. Construction was authorized in 1967 and was completed in 1975. The dam measures 13,136 feet in length and has a maximum height of 147 feet. Chatfield Lake is 2.0 miles long with a maximum depth of 47 feet at the intake tower. The authorized purposes of the dam are flood damage reduction, fish and wildlife, water supply, and recreation.

RECOVERY ACT ALLOCATIONS TO DATE: \$1,164,000

PRESIDENT'S BUDGET FOR FY2011: \$1,375,000

BUDGET FOR FY2012: M: \$79,000 **O:** \$1,190,000 **T:** \$1,269,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY2012:

N: \$0 – N/A

FRM: \$1,013,000 - Funding will be used to meet the O&M requirements of the Flood Risk Management mission. Activities include performing routine critical operations and maintenance required to operate the project, necessary engineering, oversight, inspection and monitoring to assure continued safe operation of the project. Major non-routine work includes surveys for periodic dam safety inspections and intake bridge maintenance.

Rec: \$143,000 - Funding will allow the Corps to meet minimum O&M requirements for providing quality public outdoor recreation experiences for the public. Routine activities will include recreation management, interpretive services, public outreach, visitor assistance program implementation, Title 36 enforcement, reservation services support, recreation use fee management, and completion of updates to required Master and/or management plans. Program includes funding for Colorado cost share.

Hydro: \$0 – N/A

ES: \$113,000 - Funding will be used to meet the O&M requirements of the Environmental Stewardship mission. In an effort to manage and conserve natural resources, consistent with ecosystem management principles, routine and non-routine activities for this year will include natural resource inventories, special status species monitoring, invasive species control (both pest and noxious weed), implementation of mitigation requirements, enhancement actions, shoreline management activities, real estate use evaluations and Master and/or management plan updates.

WS: \$0 -

OTHER INFORMATION: N/A

Division: NWD

District: NWO

Project Name: Chatfield Dam & Lake, CO

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Cherry Creek Dam & Lake, CO

AUTHORIZATION: PL 77-228, PL 78-534, PL 79-732

LOCATION AND DESCRIPTION: Cherry Creek Dam is located in the Denver metropolitan area in Aurora, Colorado. Construction of the dam was authorized in 1948 and was completed in 1950. The dam measures 14,300 feet in length and has a maximum height of 141 feet. Cherry Creek Reservoir is 3.25 miles long with a maximum depth of 26 feet at the intake tower. The authorized purposes of the dam are flood damage reduction, fish and wildlife, and recreation.

RECOVERY ACT ALLOCATIONS TO DATE: \$384,000

PRESIDENT'S BUDGET FOR FY2011: \$1,057,000

BUDGET FOR FY2012: M: \$434,000 **O:** \$728,000 **T:** \$1,162,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY2012:

N: \$0 – N/A

FRM: \$1,055,000 - Funding will be used to meet the O&M requirements of the Flood Risk Management mission. Activities include performing routine critical operations and maintenance required to operate the project, necessary engineering, oversight, inspection and monitoring to assure continued safe operation of the project. Major non-routine work includes replacement of failed dam safety instrumentation, installation of additional instrumentation to monitor seepage, removal of trees from spillway channel and repairs to the intake tower crane.

Rec: \$51,000 – Funding will allow the Corps to meet minimum O&M requirements for providing quality public outdoor recreation experiences for the public. Routine activities will include recreation management, interpretive services, public outreach, visitor assistance program implementation, Title 36 enforcement, reservation services support, recreation use fee management, and completion of updates to required Master and/or management plans.

Hydro: \$0 – N/A

ES: \$56,000 – Funding will be used to meet the O&M requirements of the Environmental Stewardship mission. In an effort to manage and conserve natural resources, consistent with ecosystem management principles, routine and non-routine activities for this year will include natural resource inventories, special status species monitoring, invasive species control (both pest and noxious weed), and implementation of mitigation requirements, enhancement actions, shoreline management activities, real estate use evaluations and Master and/or management plan updates.

WS: \$0 – N/A

OTHER INFORMATION: N/A

Division: NWD

District: NWO

Project Name: Cherry Creek Dam & Lake

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Chetco River, OR

AUTHORIZATION: Rivers and Harbors Acts of 1950 and 1945, P.L. 79-14

LOCATION AND DESCRIPTION: On the Oregon Coast about 290 miles south of the mouth of the Columbia River; two stone jetties; 14 foot deep, 120 feet wide channel entrance; barge turning basin; and small boat access channel.

RECOVERY ACT ALLOCATIONS TO DATE: \$ 223,000

PRESIDENT'S BUDGET FOR FY2011: \$586,000

BUDGET FOR FY2012: M: \$ 561,000 O: \$ 0 T: \$ 561,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$ 561,000 – Annual dredging needed for safe transit of commercial and recreational vessels.

FRM: \$ 0 - N/A

REC: \$ 0 - N/A

Hydro: \$ 0 - N/A

ES: \$ 0 - N/A

WS: \$ 0 - N/A

OTHER INFORMATION: N/A

Division: NWD

District: NWP

Project Name: Chetco River, OR

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Chief Joseph Dam, WA

AUTHORIZATION: Rivers and Harbor Act of 1946 as modified by 1958 Fish and Wildlife Coordinator Act.

LOCATION AND DESCRIPTION: Chief Joseph Dam is located in Bridgeport, WA, 545 river miles above the mouth of the Columbia River, 51 river miles downstream from Grand Coulee Dam. The dam consists of a 19-bay gated concrete gravity spillway that abuts the right bank and connects to a curved non-overflow concrete section founded on a rock outcropping. The 2,047-foot-long powerhouse encloses 27 main generators, 2 station service generators, maintenance shops and control room, and the visitor center. Routine hydropower and joint O&M costs, and capital investment costs, are direct funded by BPA. Appropriation funds are used to continue normal O&M activities for the recreation program and for the gas abatement project capital improvements (spillway flow deflectors).

RECOVERY ACT ALLOCATIONS TO DATE: \$500,000

PRESIDENT'S BUDGET FOR FY 2011: T: \$772,000

BUDGET FOR FY 2012: M: \$70,000 O: \$638,000 T: \$708,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by B/L as needed) FOR FY 2012:

N: N/A

FRM: N/A

Rec: \$708,000 Funding provides for routine operations and maintenance for recreation program at the Corps' largest hydropower project. Routine program includes operation of project Visitor Center, supports ten public day-use areas.

Hydro: \$0 Routine hydropower O&M costs are 100% direct funded by BPA.

ES: \$0 Routine joint O&M costs, including environmental stewardship, are 100% direct funded by BPA.

WS: N/A

OTHER INFORMATION: N/A

Division: NWD

District: NWS

Project Name: Chief Joseph Dam, WA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Clinton Lake, KS

AUTHORIZATION: Flood Control Act of 1962 (P.L. 87-874)

LOCATION AND DESCRIPTION: The project is located on the Wakarusa River, 1 mile west of Lawrence, in Douglas County, Kansas. This project provides flood protection, water supply, and recreation to the State of Kansas and the region.

RECOVERY ACT ALLOCATIONS TO DATE: \$4,327,000

PRESIDENT'S BUDGET FOR FY2011: \$2,080,000

BUDGET FOR FY2012: M: \$421,000 **O:** \$1,719,000 **T:** \$2,140,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$0 – NA.

FRM: \$1,064,000 – Critical routine operations and maintenance flood risk management.

Rec: \$902,000 – Activities required to open parks to accommodate visitation.

Hydro: \$0 – NA.

ES: \$167,000 – This is the minimum amount necessary to accomplish essential and critical cultural resource work efforts, which provides for basic stewardship of cultural resources at lake projects and compliance with Sections 106 and 110 of the National Historic Preservation Act. Also included is tree cutting/pruning, seeding, erosion control projects, cool season to warm season grass conversion, gate installation and maintenance, controlled burns, flood plot development, detection and control of invasive species, boundary line maintenance/monitoring.

WS: \$7,000 – Critical routine operations performed under the Water Supply Agreement.

OTHER INFORMATION: NA.

Division: NWD

District: NWK

Project Name: Clinton Lake, KS

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Cold Brook Dam & Lake, SD

AUTHORIZATION: PL 77-228, PL 78-534

LOCATION AND DESCRIPTION: Cold Brook Dam is located 1 mile north of Hot Springs South Dakota. The dam is 925 feet in length and has a height of 127 feet. Cold Brook Lake is 1.2 miles in length and its multipurpose pool contains 520 acre-feet of water. Cold Brook Dam was constructed to reduce flood damage in the Fall River basin. In years past, the Fall River was subject to flash flooding, causing damage to Hot Springs, South Dakota and nearby rural areas. The Flood Control Act of 1941 authorized the construction of these two dams and the channel improvements within the community of Hot Springs.

RECOVERY ACT ALLOCATIONS TO DATE: \$322,000

PRESIDENT'S BUDGET FOR FY2011: \$1,080,000

BUDGET FOR FY2012: M: \$13,000 **O:** \$283,000 **T:** \$296,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY2012:

N: \$0 – N/A

FRM: \$206,000 - Funding will be used to meet the O&M requirements of the Flood Risk Management mission. Activities include performing routine critical operations and maintenance required to operate the project, necessary engineering, oversight, inspection and monitoring to assure continued safe operation of the project. Non-routine work includes purchase of seismic instruments for dam safety monitoring.

Rec: \$63,000 - Funding will allow the Corps to meet minimum Recreation business line O&M requirements for providing quality public outdoor recreation experiences for the public. Routine activities will include recreation management, interpretive services, public outreach, visitor assistance program implementation, Title 36 enforcement, reservation services support, recreation use fee management, and completion of updates to required Master and/or management plans.

Hydro: \$0 – N/A

ES: \$27,000 - Funding will be used to meet the O&M requirements of the Environmental Stewardship mission. In an effort to manage and conserve natural resources, consistent with ecosystem management principles, routine and non-routine activities for this year will include natural resource inventories, special status species monitoring, invasive species control (both pest and noxious weed), and implementation of mitigation requirements, enhancement actions, shoreline management activities, real estate use evaluations and Master and/or management plan updates.

WS: \$0 – N/A

OTHER INFORMATION: N/A

Division: NWD

District: NWO

Project Name: Cold Brook Dam & Lake

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Columbia River and Lower Willamette River below Vancouver, WA and Portland, OR

AUTHORIZATION: Rivers and Harbors Acts 1912 (30' channel), 1930 (deepen to 35'), 1962 (deepen to 40'), 1999 (deepen 43')

LOCATION AND DESCRIPTION: Columbia River Mouth to Vancouver, WA (106.5 miles) and Willamette River Mouth to Broadway Bridge (11.6 miles). The deep-draft federal navigation channel in the Columbia River from RM 3 to 106.5, and in the Willamette River from RM 0 to 11.6.

RECOVERY ACT ALLOCATIONS TO DATE: \$ 5,020,000

PRESIDENT'S BUDGET FOR FY2011: \$24,868,000

BUDGET FOR FY2012: M: \$ 21,406,000 O: \$ 2,972,000 T: \$ 24,378,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$ 24,378,000 – Funding will allow annual dredging needed for safe transit of commercial and recreational vessels.

FRM: \$ 0 - N/A

REC: \$ 0 - N/A

Hydro: \$ 0 - N/A

ES: \$ 0 - N/A

WS: \$ 0 - N/A

OTHER INFORMATION: N/A

Division: NWD District: NWP Project Name: Columbia and Lower Willamette Rivers, WA and OR

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Columbia River at the Mouth, OR and WA

AUTHORIZATION: River and Harbor Act of 1884, as amended and River and Harbor Acts of 1905, (build Jetties & dredge) 1954 (deepen to 48'), 1983 (deepen to 55')

LOCATION AND DESCRIPTION: Entrance to the Columbia River between the states of Oregon and Washington. Deep Draft Navigation entrance channel 6 miles long, 2640 ft wide, 55/48 feet deep, north and south entrance jetties and interior jetty north side at river mile 3.

RECOVERY ACT ALLOCATIONS TO DATE: \$ 0

PRESIDENT'S BUDGET FOR FY2011: \$ 12,850,000

BUDGET FOR FY2012: M: \$ 12,414,000 O: \$ 443,000 T: \$ 12,857,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$ 12,857,000 - Funding includes annual dredging needed for safe transit of commercial and recreational vessels.

FRM: \$ 0 - N/A

REC: \$ 0 - N/A

Hydro: \$ 0 - N/A

ES: \$ 0 - N/A

WS: \$ 0 - N/A

OTHER INFORMATION: N/A

Division: NWD

District: NWP

Project Name: Columbia River at the Mouth, OR and WA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Columbia River between Vancouver, Washington to The Dalles, OR

AUTHORIZATION: Rivers and Harbors Acts, 1937 (27' channel), 1946 P.L. 79-525

LOCATION AND DESCRIPTION: Columbia River between Vancouver, Washington and the Dalles, Oregon. The deep-draft Federal navigation channel in the Columbia River from RM 106.5 at Vancouver, WA, to RM 192 at The Dalles Dam.

RECOVERY ACT ALLOCATIONS TO DATE: \$ 174,000

PRESIDENT'S BUDGET FOR FY2011: \$645,000

BUDGET FOR FY2012: M: \$ 487,000 O: \$ 206,000 T: \$ 693,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$ 693,000 - Funding will allow routine dredging needed for safe transit of deep draft commercial vessels and recreational vessels.

FRM: \$ 0 - N/A

REC: \$ 0 - N/A

Hydro: \$ 0 - N/A

ES: \$ 0 - N/A

WS: \$ 0 - N/A

OTHER INFORMATION: N/A

Division: NWD District: NWP Project Name: Columbia Rr between Vancouver, WA to The Dalles, OR

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Coos Bay, OR

AUTHORIZATION: Rivers and Harbor Acts of 1910 (dredging), 1919 (22' channel), 1930 (deepen to 24'), 1970 (deepen to 45'), 1995 (deepen to 47')

LOCATION AND DESCRIPTION: Coos Bay is located on the central Oregon coast at Coos Bay, Coos County, Oregon about 200 miles south of the Columbia River. The existing project includes: two rubble-mound, high tide jetties at the entrance; a channel across the outer bar 47-feet deep and 700-feet wide, dimensions reducing gradually to 37-feet deep and 300-feet wide at River Mile 1, an inner channel 37-feet deep and 300-feet wide to River Mile 9, thence a channel 37- feet deep and 400-feet wide to River Mile 15; two turning basins; and a boat basin access channel located in Charleston.

RECOVERY ACT ALLOCATIONS TO DATE: \$ 5,860,000

PRESIDENT'S BUDGET FOR FY2011: \$4,697,000

BUDGET FOR FY2012: M: \$ 4,203,000 O: \$ 590,000 T: \$ 4,793,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$ 4,793,000 - Funding will be used for annual dredging needed for safe transit of commercial and recreational vessels.

FRM: \$ 0 - N/A

REC: \$ 0 - N/A

Hydro: \$ 0 - N/A

ES: \$ 0 - N/A

WS: \$ 0 - N/A

OTHER INFORMATION: N/A

Division: NWD

District: NWP

Project Name: Coos Bay, Oregon

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Coquille River, OR

AUTHORIZATION: Rivers and Harbors Act of 1910, P.L. 61-264

LOCATION AND DESCRIPTION: On the Oregon Coast about 225 miles south of the Columbia River. Two stone jetties; 13-foot deep, 6,000-foot long channel entrance. Small boat access channel with a protective rubble mound structure.

RECOVERY ACT ALLOCATIONS TO DATE: \$ 407,000

PRESIDENT'S BUDGET FOR FY2011: \$433,000

BUDGET FOR FY2012: **M:** \$ 298,000 **O:** \$ 0 **T:** \$ 298,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$ 298,000 - Funding will be used for annual dredging needed for safe transit of commercial and recreational vessels.

FRM: \$ 0 - N/A

REC: \$ 0 - N/A

Hydro: \$ 0 - N/A

ES: \$ 0 - N/A

WS: \$ 0 - N/A

OTHER INFORMATION: N/A

Division: NWD

District: NWP

Project Name: Coquille River, OR

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Cottage Grove Lake, OR

AUTHORIZATION: 1938 Flood Control Act. P.L. 75-761

LOCATION AND DESCRIPTION: On Coast Fork of Willamette River, Oregon River Mile 29, about 25 miles S.E. of Eugene, Oregon. Flood reduction and earth fill dam 1750-ft long, and concrete gravity spillway 264-ft long, outlet works consisting of 3 gate-controlled conduits, and recreation sites.

RECOVERY ACT ALLOCATIONS TO DATE: \$ 347,000

PRESIDENT'S BUDGET FOR FY2011: \$1,319,000

BUDGET FOR FY2012: M: \$ 131,000 O: \$1,168,000 T: \$ 1,299,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$ 0 - N/A

FRM: \$ 853,000 - Critical operation & maintenance of flood control dam, reservoir, service facilities, and permanent operating equipment.

REC: \$ 298,000 - Critical routine operation & maintenance of recreational activities and management of all recreational lands and facilities.

Hydro: \$ 0 - N/A

ES: \$ 148,000 - Critical routine operation & maintenance to meet mitigation requirements for fish passage facilities & natural resource management and ESA mandates.

WS: \$ 0 - N/A

OTHER INFORMATION: N/A

Division: NWD

District: NWP

Project Name: Cottage Grove Lake, OR

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Cottonwood Springs Dam & Lake, SD

AUTHORIZATION: PL 77-228, PL 78-534.

LOCATION AND DESCRIPTION: Cottonwood Springs Dam is located 4.5 miles west of Hot Springs South Dakota. The dam and channel improvements were constructed under the authorization of Flood Control Act of 1941 to reduce flood damage in the Fall River basin. In years past, the Fall River was subject to flash flooding, causing damage to Hot Springs, South Dakota and nearby rural areas. The dam is 1,190 feet in length and stands 123 feet high.

RECOVERY ACT ALLOCATIONS TO DATE: \$650,000

PRESIDENT'S BUDGET FOR FY2011: \$285,000

BUDGET FOR FY2012: M: \$22,000 O: \$200,000 T: \$222,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY2012:

N: \$0 – N/A

FRM: \$141,000 - Funding will be used to meet the O&M requirements of the Flood Risk Management mission. Activities include performing routine critical operations and maintenance required to operate the project, necessary engineering, oversight, inspection and monitoring to assure continued safe operation of the project. Non-routine work includes repair of joint cracking in the concrete outlet conduit.

Rec: \$54,000 - Funding will allow the Corps to meet minimum Recreation business line O&M requirements for providing quality public outdoor recreation experiences for the public. Routine activities will include recreation management, interpretive services, public outreach, visitor assistance program implementation, Title 36 enforcement, reservation services support, recreation use fee management, and completion of updates to required Master and/or management plans.

Hydro: \$0 – N/A

ES: \$27,000 - Funding will be used to meet the O&M requirements of the Environmental Stewardship mission. In an effort to manage and conserve natural resources, consistent with ecosystem management principles, routine and non-routine activities for this year will include natural resource inventories, special status species monitoring, invasive species control (both pest and noxious weed), implementation of mitigation requirements, enhancement actions, shoreline management activities, real estate use evaluations and Master and/or management plan updates.

WS: \$0 – N/A

OTHER INFORMATION: N/A

Division: NWD

District: NWO

Project Name: Cottonwood Springs Dam & Lake

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Cougar Lake, OR

AUTHORIZATION: 1950 Flood Control Act, P.L. 81-516

LOCATION AND DESCRIPTION: On South Fork McKenzie River, 42 miles east of Eugene, Oregon. Multi-purpose with power; dam, spillway and powerhouse with 2 generating units.

RECOVERY ACT ALLOCATIONS TO DATE: \$ 1,145,000

PRESIDENT'S BUDGET FOR FY2011: \$1,733,000

BUDGET FOR FY2012: **M:** \$ 94,000 **O:** \$1,588,000 **T:** \$ 1,682,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$ 5,000 - Critical operation & maintenance cost associated with Joint Facilities to ensure projects perform to meet authorized purposes and evolving conditions.

FRM: \$ 511,000 - Critical operation & maintenance cost associated with Joint Facilities to ensure projects perform to meet authorized purposes and evolving conditions.

REC: \$ 39,000 – Critical routine operation & maintenance of recreational activities and management of all recreational lands and facilities.

Hydro: \$ 0 – Costs have been allocated to the appropriate business line. Routine operation and maintenance of Hydropower plant is Power Marketing Agency direct funded.

ES: \$ 1,084,000 – Critical routine operation & maintenance to meet mitigation requirements for fish passage facilities & natural resource management and ESA mandates.

WS: \$ 43,000 - Critical operation & maintenance cost associated with Joint Facilities to ensure projects perform to meet authorized purposes.

OTHER INFORMATION: N/A

Division: NWD

District: NWP

Project Name: Cougar Lake, OR

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Detroit Lake, OR

AUTHORIZATION: 1938 Flood Control Act, P.L. 75-761

LOCATION AND DESCRIPTION: On North Santiam River 45 miles S.E. of Salem, Oregon. Multi-purpose w/power; main dams and spillways include; powerhouse w/2 generating units and a re-regulating dam (Big Cliff) powerhouse w/1 generating unit, and recreation.

RECOVERY ACT ALLOCATIONS TO DATE: \$ 73,000

PRESIDENT'S BUDGET FOR FY2011: \$1,127,000

BUDGET FOR FY2012: **M:** \$ 57,000 **O:** \$ 773,000 **T:** \$ 830,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$ 4,000 - Critical operation & maintenance cost associated with Joint Facilities to ensure projects perform to meet authorized purposes and evolving conditions.

FRM: \$ 401,000 - Critical operation & maintenance cost associated with Joint Facilities to ensure projects perform to meet authorized purposes and evolving conditions.

REC: \$ 60,000 – Critical routine operation & maintenance of recreational activities and management of all recreational lands and facilities.

Hydro: \$ 0 – Costs have been allocated to the appropriate business line. Routine operation and maintenance of Hydropower plant is Power Marketing Agency direct funded.

ES: \$ 287,000 – Critical routine operation & maintenance to meet mitigation requirements for fish passage facilities & natural resource management and ESA mandates.

WS: \$ 78,000 - Critical operation & maintenance cost associated with Joint Facilities to ensure projects perform to meet authorized purposes.

OTHER INFORMATION: N/A

Division: NWD

District: NWP

Project Name: Detroit Lake, OR

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Dorena Lake, OR

AUTHORIZATION: 1938 Flood Control Act, P.L. 75-761

LOCATION AND DESCRIPTION: On Row River, Oregon, River Mile 7 about 20 miles S.E. of Eugene, Oregon. Flood reduction, earth fill dam 3352-ft long, 131-ft high, spillway 200-ft long, outlet works include 5 conduits controlled by hydraulic operated slide gates & reservoir, and recreation sites.

RECOVERY ACT ALLOCATIONS TO DATE: \$ 430,000

PRESIDENT'S BUDGET FOR FY2011: \$1,055,000

BUDGET FOR FY2012: **M:** \$ 106,000 **O:** \$994,000 **T:** \$ 1,100,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$ 0 - N/A

FRM: \$ 700,000 – Critical routine operation & maintenance of flood control dam, reservoir, service facilities, and permanent operating equipment.

REC: \$ 251,000 – Critical routine operation & maintenance of recreational activities and management of all recreational lands and facilities.

Hydro: \$ 0 - N/A

ES: \$ 149,000 - Critical routine operation & maintenance to meet mitigation requirements for fish passage facilities & natural resource management and ESA mandates.

WS: \$ 0 - N/A

OTHER INFORMATION: N/A

Division: NWD

District: NWP

Project Name: Dorena Lake, OR

O&M Justification Sheet

APPROPRIATIONS TITLE: Operations and Maintenance

PROJECT NAME: Dworshak Dam and Reservoir, ID

AUTHORIZATION: PL 87-874 (Flood Control Act of 1962)

LOCATION AND DESCRIPTION: Project is located in Northern Idaho on the north fork of the Clearwater River. The project is part of the Federal Columbia River Power System. The project includes the dam, a reservoir that has a gross storage capacity of 3,468,000 acre-feet of water, a powerhouse with an installed capacity of 400 Megawatts, 30,935 acres of land that provides recreation facilities and wildlife mitigation habitat, and the Dworshak National Fish Hatchery.

RECOVERY ACT ALLOCATIONS TO DATE: \$2,613,000

PRESIDENT'S BUDGET FOR FY2011: \$2,965,000

BUDGET FOR FY2012: M: \$914,000 O: \$1,781,000 T: \$2,695,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$75,000 – Provides critical operations and maintenance the navigation component for the operations and maintenance of the joint features of the project which are non-hydropower specific.

FRM: \$406,000 – Critical operations and maintenance of the flood control dam, reservoir, service facilities and permanent operating equipment. Provides the flood risk management component for the routine operations and maintenance of the joint features of the project which are non-hydropower specific.

Rec: \$954,000 – Funding for operation and maintenance of recreational sites/facilities and programs.

Hydro: \$ 0 – Critical routine operation and maintenance of joint dam, reservoir, service facilities and permanent operating equipment. The joint hydropower component and routine operation and maintenance of Hydropower plant are direct funded by the Power Marketing Agency.

ES: \$1,260,000 – Funding for operation and maintenance of lands and wildlife mitigation areas designed to protect, restore and conserve natural resources within project. Includes funding for Dworshak Fish Hatchery and biological opinions for Federally listed endangered or threatened species.

WS: \$ 0 – N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Elk Creek Lake, OR

AUTHORIZATION: Flood Control Act of 1962, as amended.

LOCATION AND DESCRIPTION: Elk Creek Lake is located in Jackson County, Oregon on Elk Creek, a tributary of Rogue River at River Mile 1.7 approximately 26.5 miles north of the city of Medford. Elk Creek Dam was partially completed prior to a court injunction stopping construction.

RECOVERY ACT ALLOCATIONS TO DATE: \$ 0

PRESIDENT'S BUDGET FOR FY2011: \$ 87,000

BUDGET FOR FY2012: **M:** \$ 20,000 **O:** \$ 40,000 **T:** \$ 60,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$ 0 - N/A

FRM: \$ 35,000 - New transfer from Construction to Operations & Maintenance in FY11. Critical routine operation and maintenance of partially completed flood control dam and service facilities.

REC: \$ 0 - N/A

Hydro: \$ 0 - N/A

ES: \$ 25,000 – Funding will allow critical routine operation and maintenance for natural resource management and fishery management .

WS: \$ 0 - N/A

OTHER INFORMATION: N/A

Division: NWD

District: NWP

Project Name: Elk Creek Lake, OR

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Everett Harbor and Snohomish River, WA

AUTHORIZATION: River and Harbor Act of June 25, 1910 and modified by subsequent acts.

LOCATION AND DESCRIPTION: Located in central Puget Sound on the eastern shore of Possession Sound. The project channel runs approximately six miles upstream from its mouth at Port Gardner Bay. The project accommodates deep draft shipping in its outer harbor and also barge traffic on the Snohomish River. The project provides for the East Waterway, a 30-foot-deep, 900 feet wide and 2,400 feet long channel leading to the facilities on the west side of the Everett Navy Home Port. There is also an 8 to 15 foot-deep by 150-foot-wide channel up the Snohomish River. The project includes two settling basins to concentrate shoaling and promote maintenance dredging efficiency. The lower river channel is flanked by a system of training and spur dikes.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

PRESIDENT'S BUDGET FOR FY 2011: T: \$1,006,000

BUDGET FOR FY 2012: M: \$1,100,000 O: \$1,345,000 T: \$2,445,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by B/L as needed) FOR FY 2012:

N: \$2,445,000 Provides for routine operations and maintenance for navigation; critical fleet maintenance support service; pipeline dredging of upstream settling basin w/upland disposal. Channel project condition survey will be conducted to report conditions to users and ongoing coordination on sediment characterization regarding ongoing maintenance coordination.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: N/A

Division: NWD

District: NWS

Project Name: Everett Harbor and Snohomish River, WA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Fall Creek Lake, OR

AUTHORIZATION: 1950 Flood Control Act, P.L. 81-516

LOCATION AND DESCRIPTION: On Fall Creek 19 miles S.E. of Eugene, Oregon; flood reduction, dam 5100-ft long, 180-ft high, gate controlled spillway, stilling basin & reservoir, and recreation sites.

RECOVERY ACT ALLOCATIONS TO DATE: \$ 1,508,000

PRESIDENT'S BUDGET FOR FY2011: \$1,149,000

BUDGET FOR FY2012: **M:** \$201,000 **O:** \$929,000 **T:** \$ 1,130,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$ 0 - N/A

FRM: \$ 618,000 – Critical routine operation & maintenance of flood control dam, reservoir, service facilities, and permanent operating equipment.

REC: \$ 47,000 – Critical routine operation & maintenance of recreational activities and management of all recreational lands and facilities

Hydro: \$ 0 - N/A

ES: \$ 465,000 - Critical routine operation & maintenance to meet mitigation requirements for fish passage facilities & natural resource management and ESA mandates.

WS: \$ 0 - N/A

OTHER INFORMATION: N/A

Division: NWD

District: NWP

Project Name: Fall Creek Lake, OR

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Fern Ridge Lake, OR

AUTHORIZATION: 1938 Flood Control Act, P.L. 75-761

LOCATION AND DESCRIPTION: On Long Tom River Oregon, River Mile 24 about 10 miles west of Eugene, Oregon; flood reduction, earth fill dam 6330-ft long, 2 auxiliary dikes, spillway with 6 automatic radial gates, outlet works in spillway structure & reservoir, and recreation sites. Long Tom River Channel downstream of dam.

RECOVERY ACT ALLOCATIONS TO DATE: \$ 879,000

PRESIDENT'S BUDGET FOR FY2011: \$ 1,800,000

BUDGET FOR FY2012: M: \$ 169,000 O: \$1,602,000 T: \$ 1,771,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$ 0 - N/A

FRM: \$ 1,026,000 – Critical operation & maintenance of flood control dam, reservoir, service facilities, and permanent operating equipment.

REC: \$ 171,000 – Critical routine operation & maintenance of recreational activities and management of all recreational lands and facilities.

Hydro: \$ 0 - N/A

ES: \$ 574,000 - Critical routine operation & maintenance to meet mitigation requirements for fish passage facilities & natural resource management and ESA mandates.

WS: \$ 0 - N/A

OTHER INFORMATION: N/A

Division: NWD

District: NWP

Project Name: Fern Ridge Lake, OR

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Fort Peck Dam & Lake, MT

AUTHORIZATION: PL 74-409, PL 75-259, PL 75-529, PL 74-409, PL 92-500, PL 93-205, PL 99-662

LOCATION AND DESCRIPTION: Fort Peck Dam construction began in 1933 and was completed in 1940. The largest hydraulically filled dam in the United States, it measures 21,026 feet in length and has a maximum height of 250.5 feet. The lake behind the dam measures 134 miles long and has 1,520 miles of shoreline, and a maximum depth of 220 feet. The project is located 20 miles southeast of Glasgow, Montana on Montana Highway 24 or 10 miles southwest of Nashua, Montana on Montana Highway 117.

RECOVERY ACT ALLOCATIONS TO DATE: \$6,293,000

PRESIDENT'S BUDGET FOR FY2011: \$5,411,000

BUDGET FOR FY2012: M: \$10,997,000 O: \$4,369,000 T: \$15,366,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY2012:

N: \$572,000 – Funding will provide for the portion of activities that serve multiple project purposes allocated to navigation. Multi-purpose activities include maintenance of spillway and outlet structures, dam safety monitoring, studies and inspections, reservoir scheduling and real estate management activities.

FRM: \$782,000 - Funding will provide for the portion of activities that serve multiple project purposes allocated to flood risk management. Multi-purpose activities include maintenance of spillway and outlet structures, dam safety monitoring, studies and inspections, reservoir scheduling and real estate management activities.

Rec: \$1,270,000 - Funding will allow the Corps to meet minimum Recreation business line O&M requirements for providing quality public outdoor recreation experiences for the public. Routine activities will include recreation management, interpretive services, public outreach, visitor assistance program implementation.

Hydro: \$11,854,000 - The funding will fulfill the requirements of the operation and maintenance plan for the project to the extent possible, which includes operation and maintenance of the hydroelectric power plant, power transmission facilities and associated water control structures, dam safety monitoring. Major non-routine work includes roof repairs, transformer rehabilitation and major rehabilitation of generating unit.

ES: \$638,000 - Funding will be used to meet the O&M requirements of the Environmental Stewardship mission. Activities for this year will include natural resource inventories, special status species monitoring, invasive species control (both pest and noxious weed), implementation of mitigation requirements, enhancement actions, shoreline management activities, real estate use evaluations and Master/management plan updates.

WS: \$250,000 - O&M studies for water supply to develop surplus water storage agreements for intakes that withdraw water for municipal and industrial purposes. Work is required to bring District into compliance with law.

OTHER INFORMATION: N/A

Division: NWD

District: NWO

Project Name: Fort Peck Dam & Lake

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Fort Randall Dam & Lake Francis Case, SD

AUTHORIZATION: PL 78-534, PL 93-205.

LOCATION AND DESCRIPTION: Fort Randall Dam is located 12 miles west of Wagner, South Dakota on Highway 46 or 25 miles northeast of Spencer, Nebraska on U.S. Highway 281. Construction on Fort Randall Dam began in 1946 and was completed in 1956. The dam measures 10,700 feet in length and has a maximum height of 140 feet. Lake Francis Case extends 107 miles upstream, creates 540 miles of shoreline, and has a maximum depth of 140 feet at the dam. The water in Lake Francis Case is stored for flood damage reduction, power generation, navigation support, fish and wildlife, recreation, irrigation, water supply, and water quality.

RECOVERY ACT ALLOCATIONS TO DATE: \$4,692,000

PRESIDENT'S BUDGET FOR FY2011: \$8,970,000

BUDGET FOR FY2012: M: \$2,145,000 O: \$6,673,000 T: \$8,818,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY2012:

N: \$611,000 – Funding will provide for the portion of activities that serve multiple project purposes allocated to navigation. Multi-purpose activities include maintenance of spillway and outlet structures, dam safety monitoring, studies and inspections, reservoir scheduling and real estate management activities.

FRM: \$837,000 - Funding will provide for the portion of activities that serve multiple project purposes allocated to flood risk management. Multi-purpose activities include maintenance of spillway and outlet structures, dam safety monitoring, studies and inspections, reservoir scheduling and real estate management activities.

Rec: \$185,000 - Funding will allow the Corps to meet minimum O&M requirements for providing quality public outdoor recreation experiences for the public. Routine activities will include recreation management, interpretive services, public outreach, visitor assistance program implementation.

Hydro: \$6,044,000 - The funding will fulfill the requirements of the operation and maintenance plan for the project to the extent possible, which includes operation and maintenance of the hydroelectric power plant, power transmission facilities and associated water control structures, dam safety monitoring, studies and inspections. Major non-routine work includes rehabilitation of tailrace crane, spot painting of intake bridge and replacement of switchyard instrumentation.

ES: \$1,066,000 - Funding will be used to meet the O&M requirements of the Environmental Stewardship mission. Routine and non-routine activities for this year will include natural resource inventories, special status species monitoring, invasive species control, and implementation of mitigation requirements, enhancement actions.

WS: \$75,000 - O&M studies for water supply to develop surplus water storage agreements for intakes that withdraw water for municipal and industrial purposes. Work is required to bring District into compliance with law.

OTHER INFORMATION: N/A

Division: NWD

District: NWO

Project Name: Fort Randall Dam & Lake Francis Case

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Garrison Dam & Lake Sakakawea, ND

AUTHORIZATION: PL 78-534, PL 93-205.

LOCATION AND DESCRIPTION: The project is located 75 miles upstream from Bismarck, North Dakota; travel north on highway 83 to the junction with state highway 200, then west 10 miles. Garrison Dam construction began in 1947 and was completed in 1953. It is the 5th largest dam in the United States and measures 13,200 feet long and has a maximum height of 210 feet. The reservoir formed by the dam, Lake Sakakawea, is 178 miles long with approximately 1,300 miles of shoreline and a maximum depth of 180 feet.

RECOVERY ACT ALLOCATIONS TO DATE: \$6,345,000

PRESIDENT'S BUDGET FOR FY2011: \$12,564,000

BUDGET FOR FY2012: M: \$4,605,000 **O:** \$7,914,000 **T:** \$10,519,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY2012:

N: \$801,000 – Funding will provide for the portion of activities that serve multiple project purposes allocated to navigation. Multi-purpose activities include maintenance of spillway and outlet structures, dam safety monitoring, studies and inspections, reservoir scheduling and real estate management activities.

FRM: \$1,401,000 – The funding will provide for routine critical operation and maintenance, monitoring, evaluation and necessary engineering support for the Williston Levee as well as the portion of activities that serve multiple project purposes allocated to flood risk management. Multi-purpose activities include maintenance of spillway and outlet structures, dam safety monitoring, studies and inspections, reservoir scheduling and real estate management activities.

Rec: \$708,000 - Funding will allow the Corps to meet minimum O&M mission requirements. Activities will include recreation management, interpretive services, public outreach, visitor assistance program implementation.

Hydro: \$5,591,000 - The funding will fulfill the requirements of the operation and maintenance plan for the project to the extent possible, which includes operation and maintenance of the hydroelectric power plant, power transmission facilities and associated water control structures, dam safety monitoring, studies and inspections, reservoir scheduling, real estate management activities, and the portion of multi-purpose activities allocated to hydropower. Non-routine work includes activities to meet NERC standards.

ES: \$1,768,000 - Funding will be used to meet the O&M requirements of the Environmental Stewardship mission. Activities for this year will include but not be limited to natural resource inventories, special status species monitoring, invasive species control, implementation of mitigation requirements, enhancement actions.

WS: \$250,000 - O&M studies for water supply to develop surplus water storage agreements for intakes that withdraw water for municipal and industrial purposes. Work is required to bring District into compliance with law.

OTHER INFORMATION: N/A

Division: NWD

District: NWO

Project Name: Garrison Dam & Lake Sakakawea

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Gavins Point Dam & Lewis and Clark Lake, SD & NE

AUTHORIZATION: PL 78-534, PL 93-205.

LOCATION AND DESCRIPTION: Gavins Point Dam is located 4 miles west of Yankton, SD on Highway 52, south across the dam or 13 miles north of Crofton, NE on Highway 121. Gavins Point Dam construction began in 1952 and was completed in 1956. The dam measures 8,700 feet in length and has a maximum height of 74 feet. Lewis and Clark Lake is 25 miles long, creates 90 miles of shoreline, and has a maximum depth of 45 feet at the dam.

RECOVERY ACT ALLOCATIONS TO DATE: \$7,401,000

PRESIDENT'S BUDGET FOR FY2011: \$7,706,000

BUDGET FOR FY2012: M: \$1,560,000 O: \$5,874,000 T: \$7,434,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY2012:

N: \$588,000 – Funding will provide for the portion of activities that serve multiple project purposes allocated to navigation. Multi-purpose activities include maintenance of spillway and outlet structures, dam safety monitoring, studies and inspections, reservoir scheduling and real estate management activities.

FRM: \$807,000 – Funding will provide for the portion of activities that serve multiple project purposes allocated to flood risk management. Multi-purpose activities include maintenance of spillway and outlet structures, dam safety monitoring, studies and inspections, reservoir scheduling and real estate management activities.

Rec: \$823,000 - Funding will allow the Corps to meet minimum O&M requirements for providing quality public outdoor recreation experiences for the public. Routine activities will include recreation management, interpretive services, public outreach, and visitor assistance program implementation.

Hydro: \$4,379,000 - The funding will fulfill the requirements of the operation and maintenance plan for the project to the extent possible, which includes operation and maintenance of the hydroelectric power plant, power transmission facilities and associated water control structures, and dam safety monitoring. Major non-routine work includes concrete repairs to the spillway weir and the spillway bridge piers.

ES: \$762,000 - Funding will be used to meet the O&M requirements of the Environmental Stewardship mission. In an effort to manage and conserve natural resources, consistent with ecosystem management principles, routine and non-routine activities for this year will include natural resource inventories, special status species monitoring, invasive species control (both pest and noxious weed), implementation of mitigation requirements, enhancement actions, shoreline management activities, real estate use evaluations and Master and/or management plan updates.

WS: \$75,000 - O&M studies for water supply to develop surplus water storage agreements for intakes that withdraw water for municipal and industrial purposes. Work is required to bring District into compliance with law.

OTHER INFORMATION: N/A

Division: NWD

District: NWO

Project Name: Gavins Point Dam & Lewis and Clark Lake

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Grays Harbor and Chehalis River, WA

AUTHORIZATION: The Rivers and Harbors Act of 30 August 1935 and Section 202 of WRDA 1986.

LOCATION AND DESCRIPTION: Grays Harbor is located in southwest coast of Washington state. The project's 24-mile long channel serves deep-draft commerce to the Port of Grays Harbor and facilities at the cities of Aberdeen, Hoquiam and Cosmopolis. The deep-draft channel is secured by a complex system of coastal structures including the north and south jetties, groin, revetments and timber breakwaters. The North Jetty is at the south end of Ocean Shores and the South Jetty is at Westport, near Half Moon Bay. The complex navigation project is large with ongoing Federal O&M activities including required dredging on an annual basis.

RECOVERY ACT ALLOCATIONS TO DATE: \$1,859,000

PRESIDENT'S BUDGET FOR FY 2011: T: \$10,550,000

BUDGET FOR FY 2012: M: \$7,500,000 O: \$1,000,000 T: \$8,500,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by B/L as needed) FOR FY 2012:

N: \$8,500,000 Provides for routine operations and maintenance for navigation; critical fleet maintenance support service; contract clamshell dredging of the inner harbor channels will be continued with open water disposal. Government hopper dredges YAQUINA and ESSAYONS will be used to provide a safe bar and entrance channel conditions. Project condition surveys will be conducted to apprise navigation users and the USCG of channel conditions with sediment characterization continued for open water and beneficial use disposal of the dredged resources.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: N/A

Division: NWD

District: NWS

Project Name: Grays Harbor and Chehalis River, WA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Green Peter – Foster Lake, OR

AUTHORIZATION: 1950 Flood Control Act, P.L. 81-516

LOCATION AND DESCRIPTION: Foster Lake is on the South Santiam River 7 miles downstream from Green Peter Lake which is on the middle of the Santiam River about 35 miles N.E. of Eugene, Oregon. Multi-purpose w/power; main dams and spillways including powerhouse with 2 generating units and a re-regulating dam (Foster) and powerhouse with 2 generating units, and recreation sites.

RECOVERY ACT ALLOCATIONS TO DATE: \$ 2,275,000

PRESIDENT'S BUDGET FOR FY2011: \$ 2,139,000

BUDGET FOR FY2012: M: \$ 209,000 O: \$1,449,000 T: \$ 1,658,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$ 5,000 - Critical operation & maintenance cost associated with Joint Facilities to ensure projects perform to meet authorized purposes and evolving conditions.

FRM: \$ 641,000 - Critical operation & maintenance cost associated with Joint Facilities to ensure projects perform to meet authorized purposes and evolving conditions.

REC: \$ 251,000 - Critical routine operation & maintenance of recreational activities and management of all recreational lands and facilities.

Hydro: \$ 0 - Costs have been allocated to the appropriate business line. Routine operation and maintenance of Hydropower plant is Power Marketing Agency direct funded.

ES: \$ 675,000 – Critical routine operation & maintenance to meet mitigation requirements for fish passage facilities & natural resource management and ESA mandates.

WS: \$ 86,000 - Critical operation and maintenance cost associated with Joint Facilities to ensure projects perform to meet authorized purposes.

OTHER INFORMATION: N/A

Division: NWD

District: NWP

Project Name: Green Peter – Foster Lake, OR

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Harlan County Lake, NE

AUTHORIZATION: Flood Control Acts of 1938 (P.L. 75-761), 1941 (P.L. 77-228), 1944 (P.L. 78-534)

LOCATION AND DESCRIPTION: Harlan County Lake is located in south central Nebraska on the Republican River, 7 miles east of Alma and 60 miles south of Kearney, Nebraska. Project purposes include flood protection, irrigation, recreation, fish and wildlife, and water quality benefits to the south central Nebraska, north central Kansas regions.

RECOVERY ACT ALLOCATIONS TO DATE: \$5,034,000

PRESIDENT'S BUDGET FOR FY2011: \$2,222,000

BUDGET FOR FY2012: M: \$1,143,000 **O:** \$1,579,000 **T:** \$2,722,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$0 – NA.

FRM: \$1,762,000 - Critical routine operations and maintenance flood risk management.

Rec: \$796,000 - Activities required to open parks to accommodate visitation.

Hydro: \$0 – NA.

ES: \$164,000 - Cultural resource management provides for basic stewardship of cultural resources in compliance with Sections 106 and 110 of the National Historic Preservation Act. Also, basic stewardship supports the prudent, reasonable, and efficient management and maintenance of project natural resources to prevent direct, immediate degradation or loss. This would encompass project water and land management, to include; mixed-grass prairie plant communities and forested/woody vegetation.

WS: \$0 – NA.

OTHER INFORMATION: NA.

Division: NWD

District: NWK

Project Name: Harlan County Lake, NE

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Harry S Truman Dam and Reservoir, MO

AUTHORIZATION: Flood Control Acts of 1938 (P.L. 75-761), 1941(P.L. 77-228), 1944 (P.L. 78-534)

LOCATION AND DESCRIPTION: Harry S Truman Dam is located 1 mile west of Warsaw, Missouri. This project provides flood protection, hydropower, water supply, fish and wildlife, and recreation to central Missouri.

RECOVERY ACT ALLOCATIONS TO DATE: \$4,839,000

PRESIDENT'S BUDGET FOR FY2011: \$8,842,000

BUDGET FOR FY2012: M: \$3,489,000 O: \$4,312,000 T: \$7,801,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$0 – NA.

FRM: \$468,000 - Critical routine operating costs necessary to meet minimum operating requirements of the power plant, and generation and transmission equipment. Also, critical remaining routine program joint maintenance and repair costs (i.e. vegetation removal, dam safety inspections, instrumentation, etc.) necessary for the safe operation of the dam, and joint operating costs necessary for water management (water control & quality) activities.

Rec: \$2,519,000 - Activities required to open parks to accommodate visitation.

Hydro: \$3,852,000 - Essential operating costs necessary to meet minimum operating requirements of the power plant funds critical routine operations of generation and transmission equipment. The power plant plays a critical part in producing power for customers within the Southwestern Power Administrations region.

ES: \$955,000 - This is the minimum amount necessary to accomplish the essential and critical natural resource work efforts which includes tree cutting/pruning, seeding, erosion control projects, gate installation and maintenance, controlled burns, detection and control of invasive species, and lake wide water sampling. It also includes bald eagle monitoring of eagle nests, monitoring activities and field investigations related to requests for uses of project lands, and investigations for consent-to-easement requests on 102,000 acres of flowage easement lands.

WS: \$7,000 - Critical routine operations performed under the Water Supply Agreement.

OTHER INFORMATION: NA.

Division: NWD

District: NWK

Project Name: Harry S Truman Dam and Reservoir, MO

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O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Hills Creek Lake, OR

AUTHORIZATION: 1950 Flood Control Act, P.L. 81-516

LOCATION AND DESCRIPTION: On Middle Fork Willamette River, 45 miles S.E. of Eugene, Oregon; Multi-purpose w/power; Dam, spillway and powerhouse w/ 2 generating units, and recreation.

RECOVERY ACT ALLOCATIONS TO DATE: \$ 1,744,000

PRESIDENT'S BUDGET FOR FY2011: \$ 863,000

BUDGET FOR FY2012: **M:** \$ 49,000 **O:** \$ 653,000 **T:** \$ 702,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$ 8,000 - Critical operation & maintenance cost associated with Joint Facilities to ensure projects perform to meet authorized purposes and evolving conditions.

FRM: \$ 342,000 - Critical operation & maintenance cost associated with Joint Facilities to ensure projects perform to meet authorized purposes and evolving conditions.

REC: \$ 28,000 – Critical routine operation & maintenance of recreational activities and management of all recreational lands and facilities.

Hydro: \$ 0 - Costs have been allocated to the appropriate business line. Routine operation and maintenance of Hydropower plant is Power Marketing Agency direct funded.

ES: \$ 264,000 - Critical routine operation & maintenance to meet mitigation requirements for fish passage facilities & natural resource management and ESA mandates.

WS: \$ 60,000 - Critical operation & maintenance cost associated with Joint Facilities to ensure projects perform to meet authorized purposes.

OTHER INFORMATION: N/A

Division: NWD

District: NWP

Project Name: Hills Creek Lake, OR

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Hillsdale Lake, KS

AUTHORIZATION: Flood Control Act of 1954 (P.L. 83-780)

LOCATION AND DESCRIPTION: The project is located approximately 12 miles above the mouth of Big Bull Creek, a tributary of the Marais des Cygnes River and about 2 ½ miles west of Hillsdale, in Miami County, Kansas. This project provides flood protection, water supply, water quality, and recreation to the State of Kansas and the region.

RECOVERY ACT ALLOCATIONS TO DATE: \$638,000

PRESIDENT'S BUDGET FOR FY2011: \$791,000

BUDGET FOR FY2012: M: \$169,000 O: \$680,000 T: \$849,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$0 – NA.

FRM: \$706,000 - Critical routine operations and maintenance for flood risk management and bridge inspection.

Rec: \$76,000 - Activities required to open parks to accommodate visitation.

Hydro: \$0 – NA.

ES: \$62,000 - This is the minimum amount necessary to accomplish essential and critical cultural resource work efforts, which provides for basic stewardship of cultural resources at lake projects and compliance with Sections 106 and 110 of the National Historic Preservation Act. Also included is tree cutting/pruning, seeding, erosion control projects, gate installation and maintenance, controlled burns, flood plot development, detection and control of invasive species, lake water sampling, and bald eagle nest protection and monitoring of two eagle nests.

WS: \$5,000 - Critical routine operations performed under the Water Supply Agreement.

OTHER INFORMATION: NA.

Division: NWD

District: NWK

Project Name: Hillsdale Lake, KS

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Howard A. Hanson Dam, WA

AUTHORIZATION: Flood Control Act of 1950

LOCATION AND DESCRIPTION: The project is located on the upper reach of the Green-Duwamish River in King County, 63.76 river miles above the mouth. It is in the city of Tacoma's municipal watershed 35 road miles east of Tacoma, 6 miles upstream from Palmer, and 24 miles from Mud Mountain Dam. This project is protected from public access. The facility provides flood protection within the Green-Duwamish watershed with an accumulative flood prevention benefit of over \$752 million since 1962 (\$3.4 million prevented in FY05 alone). The Biological Opinion and the Endangered Species Act mandate the construction and annual maintenance of mitigation sites consisting of gravel and woody debris below the dam – approximately \$545,000 annually. The Construction General (CG) program constructed the mitigation sites. FY 2007 was the first year in which O&M became responsible for maintenance of the mitigation sites.

RECOVERY ACT ALLOCATIONS TO DATE: \$ 15,654,000

PRESIDENT'S BUDGET FOR FY 2011: T: 3,276,000

BUDGET FOR FY 2012: M: \$1,012,000 O: \$2,038,000 T: \$3,050,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by B/L as needed) FOR FY 2012:

N: N/A

FRM: \$2,521,000 Routine Operations and Maintenance activities. Continue to monitor and support the risk management efforts for the Right Abutment. Continue to support the fish passage facility construction efforts.

REC: N/A

Hydro: N/A

ES: \$516,000 Continue in river deposition of woody debris and gravel for mitigation. Continue efforts with implementation of the Reasonable and Prudent Measures in the Biological Opinion.

WS: \$13,000, Continue to support the water supply mission and to interface with the City of Tacoma water system.

OTHER INFORMATION: N/A

Division: NWD

District: NWS

Project Name: Howard A. Hanson Dam, WA

O&M Justification Sheet

APPROPRIATIONS TITLE: Operations and Maintenance

PROJECT NAME: Ice Harbor Lock and Dam, WA

AUTHORIZATION: PL 79-14 (Section 2 of the River and Harbor Act of 1945)

LOCATION AND DESCRIPTION: Project is located in Eastern Washington on the Snake River about 12 miles east of Pasco Washington. The project is part of the Federal Columbia River Power System. The project includes the dam, a powerhouse with an installed capacity of 603 Megawatts, a navigation lock with a vertical lift of 100 feet, two fish ladders, a reservoir that has a water surface area of 9,200 acres, 3,576 acres of land that provides recreation facilities and wildlife mitigation habitat, and a juvenile fish bypass facilities.

RECOVERY ACT ALLOCATIONS TO DATE: \$3,732,000

PRESIDENT'S BUDGET FOR FY2011: \$4,147,000

BUDGET FOR FY2012: M: \$1,758,000 **O:** \$1,976,000 **T:** \$3,734,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$1,726,000 – Routine and non-routine operation and maintenance, includes Critical Nav Lock maintenance to assure safe and reliable operations to avoid unscheduled outages due to breakdown maintenance. Funding to conduct dam safety activities and channel surveys. Provides critical operations and maintenance of the navigation component for the operations and maintenance of the joint features of the project which are non-hydropower specific.

FRM: \$0 – N/A

Rec: \$1,295,000 – Funding for operation and maintenance of recreational sites/facilities and programs.

Hydro: \$0 – Critical routine operation and maintenance of joint dam, reservoir, service facilities and permanent operating equipment. The joint hydropower component and routine operation and maintenance of hydropower plant are direct funded by the Power Marketing Agency.

ES: \$713,000 – Funding for operation and maintenance of lands and wildlife mitigation areas designed to protect, restore and conserve natural resources within project. Includes funding for juvenile fish transportation, passage research, water quality activities and biological opinions for Federally listed endangered or threatened species. Additionally, funding includes provisions for the maintenance and repair of irrigation systems, fences, and habitat facilities, annual and perennial plantings of tree and shrub areas, food plots, meadows, and noxious and invasive species control.

WS: \$0 – N/A

OTHER INFORMATION: N/A

Division: NWD

District: Walla Walla Project Name: Ice Harbor Lock and Dam, WA

O&M Justification Sheet

APPROPRIATIONS TITLE: Operations and Maintenance

PROJECT NAME: Jackson Hole Levees, WY

AUTHORIZATION: PL 81-516 (Flood Control Act of 1950)

LOCATION AND DESCRIPTION: Project is located in Western Wyoming on the Snake River near Jackson Hole Wyoming. The project includes 22 miles of levees located on both sides of the Snake River and 2.5 miles on the Gros Ventre River. The levees provide flood control protection.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

PRESIDENT'S BUDGET FOR FY2011: \$1,001,000

BUDGET FOR FY2012: M: \$642,000 O: \$372,000 T: \$1,014,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$0 – N/A

FRM: \$1,014,000 – Funding for routine annual maintenance and levee patrol, periodic inspection with local sponsor, environmental compliance for flood damages. Funding for non-routine activities to replace deteriorated riprap as a result of weathering and for flood fighting activities due to high waters on the Snake River from high rainfall and/or snow runoff.

Rec: \$0 – N/A

Hydro: \$0 – N/A

ES: \$0 – N/A

WS: \$0 – N/A

OTHER INFORMATION: N/A

Division: NWD

District: Walla Walla

Project Name: Jackson Hole Levees, WY

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: John Day Lock and Dam, OR and WA

AUTHORIZATION: 1950 Flood Control Act, P.L. 81-516

LOCATION AND DESCRIPTION: On Columbia River, 112 miles East of Portland, Oregon.
The project is multi-purpose w/power consisting of one dam, spillways, fish passage, one navigation lock, one powerhouse w/16 generation units, and recreation sites.

RECOVERY ACT ALLOCATIONS TO DATE: \$ 20,480,000

PRESIDENT'S BUDGET FOR FY2011: \$5,217,000

BUDGET FOR FY2012: **M:** \$ 1,024,000 **O:** \$3,370,000 **T:** \$ 4,394,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$ 1,513,000 - Critical minimum navigation lock operations & maintenance including periodic navlock inspections. Includes Joint allocation.

FRM: \$ 169,000 - Critical operation & maintenance cost associated with Joint Facilities to ensure projects perform to meet authorized purposes and evolving conditions.

REC: \$ 899,000 – Critical routine operation & maintenance of recreational activities and management of all recreational lands and facilities.

Hydro: \$ 0 - Costs have been allocated to the appropriate business line. Routine operation and maintenance of Hydropower plant is Power Marketing Agency direct funded.

ES: \$ 1,813,000 - Critical routine operation & maintenance to meet mitigation requirements for fish passage facilities & natural resource management and ESA mandates.

WS: \$ 0 - N/A

OTHER INFORMATION: N/A

Division: NWD

District: NWP

Project Name: John Day Lock and Dam, OR & WA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Kanopolis Lake, KS

AUTHORIZATION: Flood Control Acts of 1938 (P.L. 75-761), 1941 (P.L. 77-228), 1944 (P.L. 78-534)

LOCATION AND DESCRIPTION: The project is located on the Smoky Hill River, about 184 river miles above the mouth of the stream, and about 11 miles northwest of Marquette, Kansas. This project provides flood protection and recreation for central Kansas.

RECOVERY ACT ALLOCATIONS TO DATE: \$2,023,000

PRESIDENT'S BUDGET FOR FY2011: \$1,561,000

BUDGET FOR FY2012: M: \$477,000 **O:** \$1,142,000 **T:** \$1,619,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$0 – NA.

FRM: \$901,000 - Critical routine operations and maintenance for flood risk management and bridge inspection.

Rec: \$531,000 - Activities required to open parks to accommodate visitation.

Hydro: \$0 – NA.

ES: \$179,000 - This is the minimum amount necessary to accomplish essential and critical cultural resource work efforts, which provides for basic stewardship of cultural resources at lake projects and compliance with Sections 106 and 110 of the National Historic Preservation Act. Also included is tree cutting/pruning, seeding, erosion control projects, gate installation and maintenance, controlled burns, detection and control of invasive species, lake wide water sampling, and bald eagle monitoring of eagle nests.

WS: \$8,000 - Critical routine operations performed under the Water Supply Agreement.

OTHER INFORMATION: NA.

Division: NWD

District: NWK

Project Name: Kanopolis Lake, KS

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Lake Washington Ship Canal, WA

AUTHORIZATION: River and Harbor Act of 1910, House Document 953, 60th Congress.

LOCATION AND DESCRIPTION: Located in the City of Seattle, the 30-foot deep canal connects Puget Sound on the west with Lake Washington eight miles to the east. A dam, gated spillway, fish ladder and two navigational locks are located 1½ miles east of the west entrance. The canal and locks provide a navigation link from freshwater Lake Washington and Lake Union to the saltwater Puget Sound. The project has materially contributed to the industrial, commercial and recreational development of the area. Since 1995, an average of 16,181 lockage's, 69,000 boats and over 1.5 million tons of cargo has passed through the locks annually.

RECOVERY ACT ALLOCATIONS TO DATE: \$ 2,000,000

PRESIDENT'S BUDGET FOR FY 2011: T: \$8,276,000

BUDGET FOR FY 2012: M: \$2,926,000 O: \$7,627,000 T: \$10,553,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by B/L as needed) FOR FY 2012:

NAV: \$9,200,000 Funding provides for routine operations and maintenance for navigation, including 24/7 year-round staffing for lock operations to transit 69,000 commercial and recreational boats. Non-routine work includes dam safety evaluations; repair an undermined monolith foundation; and construction project to replace pintle bearings on the miter gates.

FRM: N/A.

Rec: \$717,000 Funding provides routine operations and maintenance for recreation program including uniformed rangers and grounds maintenance staff. Funds provide for contract to operator the Visitor Center, tour program and environmental education programs.

Hydro: N/A.

ES: \$636,000 Funding provides routine operations and maintenance for fish passage facilities, regional coordination of fish and wildlife activities and district support for listed endangered species. Funding is necessary to carry out critical requirements (RPAs and RPMs) for ESA-listed species to meet USFWS/NOAA Biological Opinions for bull trout, Chinook salmon, and steelhead.

WS: N/A

OTHER INFORMATION: This is the busiest navigation lock in the United States. The recreation area of the Lake Washington Ship Canal project receives over one million visitors per year.

Division: NWD

District: NWS

Project Name: Lake Washington Ship Canal, WA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Libby Dam (Lake Kooconusa), MT

AUTHORIZATION: Flood Control Act of 1950 (PL81-516)

LOCATION AND DESCRIPTION: Libby Dam is located on the Kootenai River in Lincoln County, MT, 17 road miles northeast of the town of Libby on State Highway 37. The Libby Dam is a multi-purpose concrete gravity dam. Its operations primarily benefit flood control, power generation and regulation of stream flow for 16 downstream hydroelectric projects. The powerhouse came on line in 1975. Libby Dam's reservoir, Lake Kooconusa, is 90 miles long. Other purposes include navigation, irrigation, recreation and fish migration.

RECOVERY ACT ALLOCATIONS TO DATE: \$320,000

PRESIDENT'S BUDGET FOR FY 2011: T: \$1,846,000

BUDGET FOR FY 2012: M: \$153,000 O: \$1,583,000 T: \$1,736,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by B/L as needed) FOR FY 2012:

N: N/A

FRM: \$745,000 Libby Dam serves as an upper drainage flood storage facility. This storage represents more than 30% of the water storage capacity in the Federal Columbia River Power System. The original planning value of Libby Dam allocated 22% of the value of Libby to its FRM mission. The total Flood Damage reduction value for Libby Dam since construction is approximately \$200m.

Rec: \$567,000 Recreation is one of the congressionally authorized purposes as part of the enabling legislation that authorized Libby Dam. Included in this mission is a Class A Visitor Center, campgrounds, boats ramps, swimming facilities and day use areas.

Hydro: N/A

ES: \$424,000 Libby Dam carries out the full range of responsibilities in public lands stewardship, including F&W, ESA requirements, water quality and monitoring, ECC, and forestry.

WS: N/A

OTHER INFORMATION: N/A

Division: NWD

District: NWS

Project Name: Libby Dam (Lake Kooconusa), MT

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Little Blue River Lakes, MO

AUTHORIZATION: Flood Control Act of 1968 (Public Law 90-483)

LOCATION AND DESCRIPTION: This project consists of two lakes in Jackson County, Missouri, located in Kansas City, Missouri and suburban communities. The Blue Springs Lake site is on the East Fork of the Little Blue River about ½ mile south of U.S. Highway 40, and the Longview Lake site is on the main stem at approximately 109th Street. The project provides flood protection, water quality, and recreation to the surrounding area, and greater metropolitan Kansas City, Missouri.

RECOVERY ACT ALLOCATIONS TO DATE: \$678,000

PRESIDENT'S BUDGET FOR FY2011: \$741,000

BUDGET FOR FY2012: M: \$181,000 **O:** \$726,000 **T:** \$907,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$0 – NA.

FRM: \$772,000 - Critical routine operations and maintenance flood risk management.

Rec: \$43,000 - Activities required to open parks to accommodate visitation.

Hydro: \$0 – NA.

ES: \$86,000 - To provide basic cultural resources stewardship and compliance with Sec. 106 & 110 of the National Historic Preservation Act, to include investigations, project review, field investigations, and coordination with state historic preservation officers and Native American Tribes. Other mandated activities include oversight of historic properties and updating historical property management plans. Also, provide basic resource management program oversight and protection programs, and real estate program guidance and oversight. Plant trees, mow early successional fields, spray herbicide to control invasive species, and patrol known sites and shorelines for possible looting or vandalism.

WS: \$6,000 - Critical routine operations performed under the Water Supply Agreement.

OTHER INFORMATION: NA.

Division: NWD

District: NWK

Project Name: Little Blue River Lakes, MO

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O&M Justification Sheet

APPROPRIATIONS TITLE: Operations and Maintenance

PROJECT NAME: Little Goose Lock and Dam, WA

AUTHORIZATION: PL 79-14 (Section 2 of the River and Harbor Act of 1945)

LOCATION AND DESCRIPTION: Project is located in Eastern Washington on the Snake River about 50 miles west of Lewiston Idaho. The project is part of the Federal Columbia River Power System. The project includes the dam, a powerhouse with an installed capacity of 810 Megawatts, a navigation lock with a vertical lift of 98 feet, one fish ladder, a reservoir that has a water surface area of 10,025 acres, 5,398 acres of land that provides recreation facilities and wildlife mitigation habitat, and a juvenile fish holding, loading, and bypass facilities.

RECOVERY ACT ALLOCATIONS TO DATE: \$822,000

PRESIDENT'S BUDGET FOR FY2011: \$2,314,000

BUDGET FOR FY2012: M: \$1,113,000 O: \$949,000 T: \$2,062,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$1,379,000 – Routine and non-routine operation and maintenance including critical navigation lock maintenance to assure safe and reliable operations to avoid unscheduled outages due to breakdown maintenance. Funding to conduct dam safety activities and channel surveys. Interim Risk Reduction Measures funding for critical work on deteriorated waterstops. Provides critical operations and maintenance of the navigation component for the operations and maintenance of the joint features of the project which are non-hydropower specific.

FRM: \$0 – N/A

Rec: \$438,000 – Funding for operation and maintenance of recreational sites/facilities and programs.

Hydro: \$0 – Critical routine operation and maintenance of joint dam, reservoir, service facilities and permanent operating equipment. The joint hydropower component and routine operation and maintenance of hydropower plant are direct funded by the Power Marketing Agency.

ES: \$245,000 – Funding for operation and maintenance of lands and wildlife mitigation areas designed to protect, restore and conserve natural resources within project. Includes funding for juvenile fish transportation, passage research, water quality activities and biological opinions for Federally listed endangered or threatened species. Additionally, funding includes provisions for the maintenance and repair of irrigation systems, fences, and habitat facilities, annual and perennial plantings of tree and shrub areas, food plots, meadows, and noxious and invasive species control. Includes funding required for cultural resources mandates and Section 106 clearances.

WS: \$0 – N/A

OTHER INFORMATION: N/A

Division: NWD

District: Walla Walla

Project Name: Little Goose Lock and Dam, WA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Long Branch Lake, MO

AUTHORIZATION: Flood Control Act of 1965 (Public Law 89-298)

LOCATION AND DESCRIPTION: The project is located on the East Fork Little Chariton River in north central Missouri, about 2 miles west of Macon, in Macon County. This project provides flood protection, water supply, water quality, and recreation for north central Missouri.

RECOVERY ACT ALLOCATIONS TO DATE: \$778,000

PRESIDENT'S BUDGET FOR FY2011: \$941,000

BUDGET FOR FY2012: M: \$227,000 O: \$791,000 T: \$1,018,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$0 – NA.

FRM: \$781,000 - Critical routine operations and maintenance flood risk management.

Rec: \$130,000 - Activities required to open parks to accommodate visitation.

Hydro: \$0 – NA.

ES: \$102,000 - Provides for basic stewardship of cultural resources and compliance with Sections 106 and 110 of the National Historic Preservation Act, to include project review, field investigations, and coordination with various state historical societies. Also, native prairie and forest management, habitat manipulation, environmental compliance, and maintenance of real estate license, lease, and easements. Invasive species management to include identification, mapping, monitoring, and control by-way of both biological and mechanical means. High energy food plot plantings, fire break management and seasonal monitoring of water quality.

WS: \$5,000 - Critical routine operations performed under the Water Supply Agreement.

OTHER INFORMATION: NA.

Division: NWD

District: NWK

Project Name: Long Branch Lake, MO

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Lookout Point Lake, OR

AUTHORIZATION: Flood Control Acts, 1944, P.L. 75-761, 1950, PL. 81-516

LOCATION AND DESCRIPTION: On Middle Fork Willamette River, 22 miles S.E. of Eugene, Oregon. Multi-purpose w/power; main dams, spillways, powerhouse w/3 generating units and a re-regulating dam (Dexter) powerhouse w/1 generating unit, and recreation sites.

RECOVERY ACT ALLOCATIONS TO DATE: \$ 1,661,000

PRESIDENT'S BUDGET FOR FY2011: \$2,080,000

BUDGET FOR FY2012: M: \$ 93,000 O: \$1,742,000 T: \$ 1,835,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$ 11,000 - Critical operation & maintenance cost associated with Joint Facilities to ensure projects perform to meet authorized purposes and evolving conditions.

FRM: \$ 681,000 - Critical operation & maintenance cost associated with Joint Facilities to ensure projects perform to meet authorized purposes and evolving conditions.

REC: \$ 223,000 – Critical routine operation & maintenance of recreational activities and management of all recreational lands and facilities.

Hydro: \$ 0 - Costs have been allocated to the appropriate business line. Routine operation and maintenance of Hydropower plant is Power Marketing Agency direct funded.

ES: \$ 899,000 - Critical routine operation & maintenance to meet mitigation requirements for fish passage facilities & natural resource management and ESA mandates.

WS: \$ 21,000 - Critical operation & maintenance cost associated with Joint Facilities to ensure projects perform to meet authorized purposes.

OTHER INFORMATION: N/A

Division: NWD

District: NWP

Project Name: Lookout Point Lake, OR

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Lost Creek Lake, OR

AUTHORIZATION: 1962 Flood Control Act, P.L. 87-874

LOCATION AND DESCRIPTION: On upper Rogue River, 27 miles N.E. of Medford, Oregon. Multi-purpose with power; dam, spillway, powerhouse with 2 generating units, and recreation sites.

RECOVERY ACT ALLOCATIONS TO DATE: \$ 384,000

PRESIDENT'S BUDGET FOR FY2011: \$3,897,000

BUDGET FOR FY2012: M: \$ 265,000 O: \$3,222,000 T: \$ 3,487,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$ 0 - N/A

FRM: \$ 553,000 - Critical operation & maintenance cost associated with Joint Facilities to ensure projects perform to meet authorized purposes and evolving conditions.

REC: \$ 665,000 – Critical routine operation & maintenance of recreational activities and management of all recreational lands and facilities. Includes Joint allocation.

Hydro: \$ 0 - Costs have been allocated to the appropriate business line. Routine operation and maintenance of Hydropower plant is Power Marketing Agency direct funded.

ES: \$ 2,176,000 - Critical routine operation & maintenance to meet mitigation requirements for fish passage facilities & natural resource management and ESA mandates. Includes Joint allocation.

WS: \$ 93,000 - Critical operation cost associated with local water supply agreements. Includes Joint allocation.

OTHER INFORMATION: N/A

Division: NWD

District: NWP

Project Name: Lost Creek Lake, OR

O&M Justification Sheet

APPROPRIATIONS TITLE: Operations and Maintenance

PROJECT NAME: Lower Granite Lock and Dam, WA

AUTHORIZATION: PL 79-14 (Section 2 of the River and Harbor Act of 1945)

LOCATION AND DESCRIPTION: Project is located in Eastern Washington on the Snake River about 33 miles west of Lewiston Idaho. The project is part of the Federal Columbia River Power System. The project includes the dam, a powerhouse with an installed capacity of 810 Megawatts, a navigation lock with a vertical lift of 100 feet, one fish ladder, a system of levees and pumping plants, a reservoir that has a water surface area of 8,900 acres, 5,778 acres of land that provides recreation facilities and wildlife mitigation habitat, and a juvenile fish holding, loading, and bypass facilities, and adult-fish trapping facilities.

RECOVERY ACT ALLOCATIONS TO DATE: \$2,907,000

PRESIDENT'S BUDGET FOR FY2011: \$5,782,000

BUDGET FOR FY2012: M: \$1,209,000 O: \$1,614,000 T: \$2,823,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$1,261,000 – Routine and non-routine operation and maintenance including critical navigation lock maintenance to assure safe and reliable operations to avoid unscheduled outages due to breakdown maintenance. Funding to conduct dam safety activities and channel surveys, compliance with court settlement agreement to allow future dredging, prevention of damage to lock that prevents dewatering. Provides critical operations and maintenance of the navigation component for the operations and maintenance of the joint features of the project which are non-hydropower specific.

FRM: \$0 – N/A

Rec: \$1,524,000 – Funding for operation and maintenance of recreational sites/facilities and programs.

Hydro: \$0 – Critical routine operation and maintenance of joint dam, reservoir, service facilities and permanent operating equipment. The joint hydropower component and routine operation and maintenance of hydropower plant are direct funded by the Power Marketing Agency.

ES: \$38,000 – operation and maintenance of lands and wildlife mitigation areas designed to protect, restore and conserve natural resources within project; for juvenile fish transportation, passage research, water quality activities and biological opinions for Federally listed endangered or threatened species; maintenance and repair of irrigation systems, fences, habitat facilities, annual and perennial plantings of tree and shrub areas, food plots, meadows, and noxious and invasive species control; and for Cultural Resources and Section 106 clearances.

WS: \$0 – N/A

OTHER INFORMATION: N/A

Division: NWD

District: Walla Walla

Project Name: Lower Granite Lock and Dam, WA

O&M Justification Sheet

APPROPRIATIONS TITLE: Operations and Maintenance

PROJECT NAME: Lower Monumental Lock and Dam, WA

AUTHORIZATION: PL 79-14 (Section 2 of the River and Harbor Act of 1945)

LOCATION AND DESCRIPTION: Project is located in Eastern Washington on the Snake River about 45 miles northeast of Pasco Washington. The project is part of the Federal Columbia River Power System. The project includes the dam, a powerhouse with an installed capacity of 810 Megawatts, a navigation lock with a vertical lift of 98 feet, two fish ladders, a reservoir that has a water surface area of 6,590 acres, 8,336 acres of land that provides recreation facilities and wildlife mitigation habitat, and a juvenile fish holding, loading, and bypass facilities.

RECOVERY ACT ALLOCATIONS TO DATE: \$15,136,000

PRESIDENT'S BUDGET FOR FY2011: \$4,734,000

BUDGET FOR FY2012: M: \$1,210,000 O: \$963,000 T: \$2,172,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$1,389,000 – Routine and non-routine operations and maintenance including critical navigation lock maintenance to assure safe and reliable operations to avoid unscheduled outages due to breakdown maintenance. Funding to conduct dam safety activities and channel surveys, compliance with court settlement agreement to allow future dredging, prevention of concrete failure that can cause operation and safety hazards. Provides critical operations and maintenance component for the joint features of the project which are non-hydropower specific.

FRM: \$0 – N/A

Rec: \$538,000 – Funding for operation and maintenance of recreational sites/facilities and programs.

Hydro: \$0 – Critical routine operation and maintenance of joint dam, reservoir, service facilities and permanent operating equipment. The joint hydropower component and routine operation and maintenance of hydropower plant are direct funded by the Power Marketing Agency.

ES: \$245,000 – Funding for operation and maintenance of lands and wildlife mitigation areas designed to protect, restore and conserve natural resources within project; for juvenile fish transportation, passage research, water quality activities and biological opinions for Federally listed endangered or threatened species; for maintenance and repair of irrigation systems, fences, habitat facilities, annual and perennial plantings of tree and shrub areas, food plots, meadows, and noxious and invasive species control; and for Cultural Resources and Section 106 clearances.

WS: \$0 – N/A

OTHER INFORMATION: N/A

Division: NWD

District: Walla Walla

Project Name: Lower Monumental Dam, WA

O&M Justification Sheet

APPROPRIATIONS TITLE: Operations and Maintenance

PROJECT NAME: Lucky Peak Dam and Lake, ID

AUTHORIZATION: PL 79-526 (Flood Control Act of 1946)

LOCATION AND DESCRIPTION: Project is located in Southern Idaho on the Boise River, 15 minutes from Boise, Idaho. The project includes the dam, a flood control and irrigation reservoir that has a gross storage capacity of 306,000 acre-feet of water. The reservoir and 4,288 acres of land provides recreation facilities to over a million visitors annually and valuable wildlife mitigation habitat.

RECOVERY ACT ALLOCATIONS TO DATE: \$159,000

PRESIDENT'S BUDGET FOR FY2011: \$2,689,000

BUDGET FOR FY2012: M: \$1,156,000 O: \$1,762,000 T: \$2,918,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$0 – N/A

FRM: \$1,994,000 – Funding is for routine bridge inspection, routine maintenance and instrumentation maintenance and repair, routine operations of the dam, to update the emergency notification plan, dam safety training, security guards, flood damages reports, instrumentation, and inspection and data collection. Funding identified for non-routine Dam Safety Action Classifications (DSAC) Interim Risk Reduction Measures (IRRM).

Rec: \$762,000 – Funding for operation and maintenance of recreational sites/facilities and programs.

Hydro: \$0 – N/A

ES: \$162,000 – Funding for operation and maintenance of lands and wildlife mitigation areas designed to protect, restore and conserve natural resources within project. Additionally, funding includes provisions for the maintenance and repair of irrigation systems, fences, habitat facilities, annual and perennial plantings of tree and shrub areas, food plots, meadows, janitorial and trash pickup contracts, and noxious and invasive species control. Includes funding required for cultural resources mandates and Section 106 inspections.

WS: \$0 – N/A

OTHER INFORMATION: N/A

Division: NWD

District: Walla Walla

Project Name: Lucky Peak Dam and Lake, ID

O&M Justification Sheet

APPROPRIATIONS TITLE: Operations and Maintenance

PROJECT NAME: McNary Lock and Dam, OR & WA

AUTHORIZATION: PL 79-14 (Section 2 of the River and Harbor Act of 1945)

LOCATION AND DESCRIPTION: Project is located in Central Oregon on the Columbia River near Umatilla Oregon. The project is part of the Federal Columbia River Power System. The project includes the dam, a powerhouse with an installed capacity of 980 Megawatts, a navigation lock with a vertical lift of 75 feet, two fish ladders, a system of levees and pumping plants, a reservoir that has a water surface area of 38,800 acres, 16,908 acres of land that provides recreation facilities and wildlife mitigation habitat, and a juvenile fish holding, loading, and bypass facilities.

RECOVERY ACT ALLOCATIONS TO DATE: \$2,495,000

PRESIDENT'S BUDGET FOR FY2011: \$ 6,277,000

BUDGET FOR FY2012: M: \$2,734,000 O: \$ 2,575,000 T: \$5,309,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$2,646,000 - Routine and non-routine operation and maintenance including critical navigation lock maintenance including funding to conduct dam safety activities and channel surveys. Provides critical operations and maintenance of the navigation component of the joint features of the project which are non-hydropower specific.

FRM: \$0 – N/A

Rec: \$1,644,000 – Funding for operation and maintenance of recreational sites/facilities and programs.

Hydro: \$0 – Critical routine operation and maintenance of joint dam, reservoir, service facilities and permanent operating equipment. The joint hydropower component and routine operation and maintenance of hydropower plant are direct funded by the Power Marketing Agency.

ES: \$1,019,000 – Funding for operation and maintenance of lands and wildlife mitigation areas designed to protect, restore and conserve natural resources within project. Includes funding for juvenile fish transportation, passage research, water quality activities and biological opinions for Federally listed endangered or threatened species. Additionally, funding includes provisions for the maintenance and repair of irrigation systems, fences, and habitat facilities, annual and perennial plantings of tree and shrub areas, food plots, meadows, and noxious and invasive species control. Includes funding required for the preservation of Kennewick Man and Section 106 clearances.

WS: \$0 – N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Melvern Lake, KS

AUTHORIZATION: Flood Control Act of 1954 (P.L. 83-780)

LOCATION AND DESCRIPTION: The project is located in Osage County, Kansas, 8 miles south of Lyndon. This project provides flood protection, water supply, and recreation to the State of Kansas and the region.

RECOVERY ACT ALLOCATIONS TO DATE: \$2,467,000

PRESIDENT'S BUDGET FOR FY2011: \$1,981,000

BUDGET FOR FY2012: M: \$448,000 O: \$1,620,000 T: \$2,068,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$0 – NA.

FRM: \$1,096,000 - Critical routine operations and maintenance flood risk management.

Rec: \$807,000 - Activities required to open parks to accommodate visitation.

Hydro: \$0 – NA.

ES: \$159,000 - Provides for basic stewardship of cultural resources and compliance with Sections 106 and 110 of the National Historic Preservation Act, to include project review, field investigations, and coordination with various state historical societies. Funding at this level will provide minimal boundary surveillance, a reduced prescribed burning program and a reduced lake sampling program. This is a cooperative effort with Kansas Department of Wildlife and Parks to maintain our wetland areas.

WS: \$6,000 - Critical routine operations performed under the Water Supply Agreement.

OTHER INFORMATION: NA.

Division: NWD

District: NWK

Project Name: Melvern Lake, KS

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Milford Lake, KS

AUTHORIZATION: Flood Control Act of 1954 (P.L. 81-780)

LOCATION AND DESCRIPTION: The project is located in Geary, Clay, and Riley Counties, on the Republican River near the village of Alida, about 10 miles above the confluence of the Republican and Smokey Hill Rivers, which form the Kansas River; near Fort Riley, Kansas and about 4 miles northwest of Junction City, Kansas. This project provides flood protection, water supply, water quality control, fish and wildlife management, navigation supplementation, and recreation for northeast Kansas.

RECOVERY ACT ALLOCATIONS TO DATE: \$2,555,000

PRESIDENT'S BUDGET FOR FY2011: \$2,391,000

BUDGET FOR FY2012: M: \$492,000 O: \$1,581,000 T: \$2,073,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$0 – NA.

FRM: \$1,040,000 - Critical routine operations and maintenance flood risk management.

Rec: \$931,000 - Activities required to open parks to accommodate visitation.

Hydro: \$0 – NA.

ES: \$97,000 - This is the minimum amount necessary to accomplish essential and critical cultural resource work efforts, which provides for basic stewardship of cultural resources at lake projects and compliance with Sections 106 and 110 of the National Historic Preservation Act. Also included is tree cutting/pruning, seeding, erosion control projects, gate installation and maintenance, controlled burns, detection and control of invasive species, lake wide water sampling, and bald eagle monitoring of eagle nests.

WS: \$5,000 - Critical routine operations performed under the Water Supply Agreement.

OTHER INFORMATION: NA.

O&M Justification Sheet

APPROPRIATIONS TITLE: Operations and Maintenance

PROJECT NAME: Mill Creek Lake, WA

AUTHORIZATION: PL 75-761 (Flood Control Act of 1938)

LOCATION AND DESCRIPTION: Project is located in Eastern Washington on Mill Creek near Walla Walla Washington. The project includes the dam, a reservoir that has a gross storage capacity of 8,300 acre-feet of water, a flood control channel, 612 acres of land that provides recreation facilities and wildlife mitigation habitat, and a diversion dam and levee with two fish ladders.

RECOVERY ACT ALLOCATIONS TO DATE: \$161,000

PRESIDENT'S BUDGET FOR FY2011: \$3,817,000

BUDGET FOR FY2012: M: \$840,000 O: \$2,181,000 T: \$3,021,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$0 – N/A

FRM: \$2,213,000 – Funding is for routine bridge Inspection, routine maintenance and instrumentation maintenance and repair, routine operations of the dam, to update emergency notification plan, dam safety training, security guards, flood damages reports, instrumentation, and inspection and data collection. Funding for several non-routine items such as rip rap rehabilitation downstream of intake canal, Dam Safety Action Classification (DSAC) activities, and addressing operational, legal and physical deficiencies. Investigations have revealed fire and life-safety code issues, sewage, accessibility deficiencies, hazardous building materials and functional deficiencies that inhibit performance of the mission.

Rec: \$431,000 – Funding for operation and maintenance of recreational sites/facilities and programs.

Hydro: \$0 – N/A

ES: \$377,000 – Funding for operation and maintenance of lands and wildlife mitigation areas designed to protect, restore and conserve natural resources within project. Funding to implement National Marine Fisheries Service Biological Opinion for listed threatened Mid-Columbia River steelhead and U.S. Fish and Wildlife Service biological opinion for listed threatened bull trout. Includes funding for coordination of project activities with region and implementation of required fish passage improvements. Additionally, funding includes provisions for the maintenance and repair of irrigation systems, fences, and habitat facilities, annual and perennial plantings of tree and shrub areas, food plots, meadows, and noxious and invasive species control. Includes funding required for cultural resources mandates and Section 106 inspections.

WS: \$0 – N/A

OTHER INFORMATION: N/A

Division: NWD

District: Walla Walla

Project Name: Mill Creek Lake, WA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Missouri River - Kenslers Bend, NE to Sioux City, IA

AUTHORIZATION: PL 79-14.

LOCATION AND DESCRIPTION: Missouri River Kenslers Bend Project provides operation and maintenance on 15 miles of the Missouri River navigation channel from Big Sioux Bend near Sioux City IA to Ponca Bend near Ponca, Nebraska. Program responsibilities include maintenance of dikes, revetments, environmental notches, chevron dikes, L-dikes, sills, kicker dikes, chute closures, dredging, water control and water quality studies.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

PRESIDENT'S BUDGET FOR FY2011: \$137,000

BUDGET FOR FY2012: M: \$39,000 O: \$98,000 T: \$137,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY2012:

N: \$137,000 - The funding will be used to meet the minimum O&M requirements of the Navigation mission. Program responsibilities include maintenance of structures; dikes, revetments, environmental notches, chevron dikes, L-dikes, sills, kicker dikes and chute closures. Funding will provide maintenance to critically damaged or degraded structures, structure surveys, dredging, water control and water quality studies necessary to maintain a reliable, navigable river channel and to protect the project as a unit.

FRM: \$0 – N/A

Rec: \$0 – N/A

Hydro: \$0 – N/A

ES: \$0 – N/A

WS: \$0 – N/A

OTHER INFORMATION: N/A

Division: NWD

District: NWO

Project Name: Missouri River - Kenslers Bend, NE to Sioux City, IA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Missouri River, Sioux City to Mouth, IA, NE, KS & MO

AUTHORIZATION: Flood Control Acts of 1912 (P.L. 62-241), 1917 (P.L. 64-), 1925 (P.L. 68-585), 1927 (P.L. 70-560), 1930 (P.L. 73-67), 1935 (P.L. 73-409), 1945 (P.L. 79-14), 1970 (P.L. 91-611)

LOCATION AND DESCRIPTION: The Missouri River project was designed to be a self-scouring channel that uses the controlled erosive forces of flowing water to maintain channel widths and depths. Dike and revetment structures must be maintained in design condition to achieve the desired flow patterns and channel dimensions necessary for commercial navigation.

RECOVERY ACT ALLOCATIONS TO DATE: \$ 4,011,000

PRESIDENT'S BUDGET FOR FY2011: \$9,021,000

BUDGET FOR FY2012: M: \$3,316,000 **O:** \$2,883,000 **T:** \$6,199,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$4,808,000 – Critical routine operations and maintenance. Also, remaining critical routine operations supporting river field office, plant, staff, and work including dike and revetment repair, ESA compliance and emergency dredging. Remaining critical routine maintenance includes structural improvements of low-flow navigation problems areas and repair of damaged dikes for bank stabilization and navigation.

FRM: \$0k – NA.

Rec: \$16,000 – Activities required to open parks to accommodate visitation.

Hydro: \$0k – NA.

ES: \$1,375,000 – Operation and maintenance of MO River Fish and Wildlife mitigation sites by the States of Missouri, Kansas, and the Fish and Wildlife Service. Work includes maintenance of habitat plantings and mitigation water control structures, control of noxious species, installation of annual wildlife food plots, protection of endangered species, and management of public use including signing and patrols to protect mitigation site habitats

WS: \$0k – NA.

OTHER INFORMATION: NA.

Division: NWD District: NWK & NWO Project Name: Missouri River, Rulo to Mouth, IA, NE, KS & MO

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Mt. St Helens Sediment Control Structure, WA

AUTHORIZATION: Supplemental Appropriation Act 1985, P.L. 99-88

LOCATION AND DESCRIPTION: On the North Fork Toutle River and on the Cowlitz River in Cowlitz County, Washington; flood reduction, sediment retention structure on the North Fork Toutle River.

RECOVERY ACT ALLOCATIONS TO DATE: \$ 0

PRESIDENT'S BUDGET FOR FY2011: \$ 265,000

BUDGET FOR FY2012: **M:** \$ 38,000 **O:** \$ 275,000 **T:** \$ 313,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$ 0 - N/A

FRM: \$ 313,000 – Critical routine operation & maintenance of flood control dam, reservoir, service facilities, and permanent operating equipment.

REC: \$ 0 - N/A

Hydro: \$ 0 - N/A

ES: \$ 0 - N/A

WS: \$ 0 - N/A

OTHER INFORMATION: N/A

Division: NWD District: NWP Project Name: Mt. St Helens Sediment Control Structure, WA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Mud Mountain Dam, WA (O&M)

AUTHORIZATION: Section 5 of the Flood Control Act of 1936, dated 22 June 1936 for flood control and fish collection.

LOCATION AND DESCRIPTION: The project is located on the White River, six miles upriver and southeast of Enumclaw and 38 miles east of Tacoma. Facility provides flood protection within the White River watershed. When the original flood control project was built in 1948, a fish passage trap facility was constructed six miles downstream of the dam. The facility is still used to capture salmonids for trucking above the dam where they are released.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

PRESIDENT'S BUDGET FOR FY 2011: T: \$3,441,000

BUDGET FOR FY 2012: M: \$1,343,000 O: \$2,206,000 T: \$3,549,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by B/L as needed) FOR FY 2012:

N: N/A

FRM: \$2,580,000, Operations and Maintenance activities. Continue to monitor and support the construction general projects. Continue to support the fish passage facility and to continue the record fish hauls.

Rec: \$303,000 Continue to operate and maintain the public park, trails and over look areas in a safe manner.

Hydro: N/A.

ES: \$666,000 Continue efforts with implementation of the Reasonable and Prudent Measures in the Biological Opinion.

WS: N/A

OTHER INFORMATION: N/A

Division: NWD

District: NWS

Project Name: Mud Mountain Dam, WA (O&M)

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Oahe Dam & Lake, SD

AUTHORIZATION: PL 78-534, PL 93-205.

LOCATION AND DESCRIPTION: The project is located 7 miles north of Pierre, South Dakota, on South Dakota Highway 1804; or 5 miles north of Fort Pierre, South Dakota on South Dakota Highway 1806. Construction on Oahe Dam began in 1948 and the project began generating electricity in 1962. The dam measures 9,300 feet in length and has a maximum height of 245 feet and creates Lake Oahe, which spreads 231 miles upstream.

RECOVERY ACT ALLOCATIONS TO DATE: \$5,406,000

PRESIDENT'S BUDGET FOR FY2011: \$10,477,000

BUDGET FOR FY2012: M: \$1,352,000 O: \$8,966,000 T: \$10,318,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY2012:

N: \$828,000 - Funding will provide for the portion of activities that serve multiple project purposes allocated to navigation. Multi-purpose activities include maintenance of spillway and outlet structures, dam safety monitoring, studies and inspections, reservoir scheduling and real estate management activities.

FRM: \$1,135,000 - Funding will provide for the portion of activities that serve multiple project purposes allocated to flood risk management. Multi-purpose activities include maintenance of spillway and outlet structures, dam safety monitoring, studies and inspections, reservoir scheduling and real estate management activities.

Rec: \$472,000 - Funding will allow the Corps to meet minimum O&M requirements for providing quality public outdoor recreation experiences for the public. Routine activities will include recreation management, interpretive services, public outreach, and visitor assistance program implementation.

Hydro: \$6,307,000 - the funding will fulfill the requirements of the operation and maintenance plan for the project to the extent possible, which includes operation and maintenance of the hydroelectric power plant, power transmission facilities and associated water control structures, and dam safety monitoring. Major non-routine work includes a periodic dam safety inspection, arc flash hazard assessment and rehabilitation of transformers.

ES: \$1,326,000 - Funding will be used to meet the O&M requirements of the Environmental Stewardship mission. Routine and non-routine activities for this year will include natural resource inventories, special status species monitoring, invasive species control (both pest and noxious weed), implementation of mitigation requirements, enhancement actions, shoreline management activities, real estate use evaluations and Master and/or management plan updates.

WS: \$250,000 - O&M studies for water supply to develop surplus water storage agreements for intakes that withdraw water for municipal and industrial purposes. Work is required to bring District into compliance with law.

OTHER INFORMATION: N/A

Division: NWD

District: NWO

Project Name: Oahe Dam & Lake, SD

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Papillion Creek Projects, NE

AUTHORIZATION: PL 90-483, PL 89-72.

LOCATION AND DESCRIPTION: The Papillion (Papio) Creek Projects consist of Glenn Cunningham, Standing Bear, Zorinsky and Wehrspann Lakes and Dams, all of which are located within the Greater Omaha area. The Corps of Engineers built the dams and developed the initial recreation plan as part of the Papio Creek and Tributaries lakes project. Extensive flooding in 1964 and 1965 resulted in the loss of 7 lives and \$5.5M in property damage, prompting Congress to authorize construction of the Papio dams. The dams and reservoirs were built primarily to reduce flood damage in the Papio Creek watershed. Recreational opportunities, wildlife habitat and improved water quality are additional benefits derived from the Papios. The Corps cooperates with other agencies to manage and protect the natural resources of these lakes and surrounding lands.

RECOVERY ACT ALLOCATIONS TO DATE: \$229,000

PRESIDENT'S BUDGET FOR FY2011: \$738,000

BUDGET FOR FY2012: M: \$76,000 **O:** \$759,000 **T:** \$835,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY2012:

N: \$0 – N/A

FRM: \$689,000 – Funding will be used to meet the O&M requirements of the Flood Risk Management mission. Activities include performing routine critical operations and maintenance required to operate the project, necessary engineering, oversight, inspection and monitoring to assure continued safe operation of the project. Scheduled non-routine work includes periodic dam safety inspections and supporting surveys.

Rec: \$10,000 - Funding will allow the Corps to meet minimum O&M requirements for providing quality public outdoor recreation experiences for the public. Routine activities will include recreation management, interpretive services, public outreach, visitor assistance program implementation, Title 36 enforcement, reservation services support, recreation use fee management, and completion of updates to required Master and/or management plans.

Hydro: \$0 – N/A

ES: \$136,000 - Funding will be used to meet the O&M requirements of the Environmental Stewardship mission. In an effort to manage and conserve natural resources, consistent with ecosystem management principles, routine and non-routine activities for this year will include natural resource inventories, special status species monitoring, invasive species control (both pest and noxious weed), and implementation of mitigation requirements, enhancement actions, shoreline management activities, real estate use evaluations and Master and/or management plan updates.

WS: \$0 – N/A

OTHER INFORMATION: N/A

Division: NWD

District: NWO

Project Name: Papillion Creek Projects

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Perry Lake, KS

AUTHORIZATION: Flood Control Act of 1954 (P.L. 81-780)

LOCATION AND DESCRIPTION: The project is located on the Delaware River, 2 miles north of Perry, in Jefferson County, Kansas. This project provides flood protection, water supply, and recreation to the State of Kansas and the region.

RECOVERY ACT ALLOCATIONS TO DATE: \$2,207,000

PRESIDENT'S BUDGET FOR FY2011: \$2,254,000

BUDGET FOR FY2012: M: \$486,000 O: \$1,872,000 T: \$2,358,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$0 – NA.

FRM: \$1,169,000 - Critical routine operations and maintenance flood risk management, as well as relief well rejuvenation.

Rec: \$1,032,000 - Rock Creek Park: Removal of 100,000 gallon water tower. This tower is no longer in use for various maintenance issues, the primary being high lead content of the paint. Water line to Perry Marina: Currently one meter serves both Perry Marina and the Corps of Engineers from the rural water district. Slough Creek water line improvements: The current water line runs under Perry Lake.

Hydro: \$0 – NA.

ES: \$152,000 - Provides for basic stewardship of cultural resources at lake projects and compliance with Sections 106 and 110 of the National Historic Preservation Act. Investigations include project review, field investigations, and coordination with various state historical societies. Also, maintain and improve prairie grass stands, improve wildlife carrying potential, control erosion through maintenance of residues and the maintenance of terraces, and enhance wildlife carrying potential by providing wildlife food plots.

WS: \$5,000 - Critical routine operations performed under the Water Supply Agreement.

OTHER INFORMATION: NA.

Division: NWD

District: NWK

Project Name: Perry Lake, KS

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Pipestem Dam & Lake, ND

AUTHORIZATION: PL 89-298, PL 89-72.

LOCATION AND DESCRIPTION: Located 4 miles north of Jamestown, North Dakota, off highway 52/281. Pipestem Dam was constructed for flood damage reduction, fish and wildlife enhancement, and recreation. Construction of the dam began in June 1971, and was completed in 1973. The dam measures approximately 4,000 feet in length, with a maximum height of 107.5 feet from the stream bed to the top of the dam. Pipestem Lake is 5.5 miles long and has a maximum depth of 30 feet. The lake drains an approximate 594 square mile area, and has a multipurpose storage capacity of 8,944 acre-feet.

RECOVERY ACT ALLOCATIONS TO DATE: \$1,052,000

PRESIDENT'S BUDGET FOR FY2011: \$550,000

BUDGET FOR FY2012: M: \$7,000 O: \$695,000 T: \$702,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY2012:

N: \$0 – N/A

FRM: \$565,000 - Funding will be used to meet the O&M requirements of the Flood Risk Management mission. Activities include performing routine critical operations and maintenance required to operate the project, necessary engineering, oversight, inspection and monitoring to assure continued safe operation of the project. Scheduled non-routine work includes repairs to asphalt roads.

Rec: \$25,000 - Funding will allow the Corps to meet minimum O&M requirements for providing quality public outdoor recreation experiences for the public. Routine activities will include recreation management, interpretive services, public outreach, visitor assistance program implementation, Title 36 enforcement, reservation services support, recreation use fee management, and completion of updates to required Master and/or management plans.

Hydro: \$0 – N/A

ES: \$112,000 - Funding will be used to meet the O&M requirements of the Environmental Stewardship mission. In an effort to manage and conserve natural resources, consistent with ecosystem management principles, routine and non-routine activities for this year will include natural resource inventories, special status species monitoring, invasive species control (both pest and noxious weed), implementation of mitigation requirements, enhancement actions, shoreline management activities, real estate use evaluations and Master and/or management plan updates.

WS: \$0 – N/A

OTHER INFORMATION: N/A

Division: NWD

District: NWO

Project Name: Pipestem Dam & Lake

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Pomme de Terre Lake, MO

AUTHORIZATION: Flood Control Acts of 1938 (P.L. 75-761), 1944 (P.L. 78-534), 1954 (P.L. 83-780)

LOCATION AND DESCRIPTION: The project is located in Hickory and Polk counties, 4 miles south of Hermitage and 20miles north of Bolivar, Missouri. This project provides flood protection, water quality, and recreation to southwest Missouri.

RECOVERY ACT ALLOCATIONS TO DATE: \$8,086,000

PRESIDENT'S BUDGET FOR FY2011: \$2,156,000

BUDGET FOR FY2012: M: \$593,000 O: \$1,822,000 T: \$2,415,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$0 – NA.

FRM: \$1,179,000 - Critical routine operations and maintenance flood risk management and bridge inspections.

Rec: \$908,000 - Activites required to open parks to accomodate visitation.

Hydro: \$0 – NA.

ES: \$328,000 - Provides for basic stewardship of cultural resources and compliance with Sections 106 and 110 of the National Historic Preservation Act, to include project review, field investigations, and coordination with various state historical societies. Also includes tree cutting/pruning, seeding, erosion control projects, gate installation and maintenance, controlled burns, detection and control of invasive species, lake wide water sampling, and bald eagle monitoring of eagle nests.

WS: \$0 – NA.

OTHER INFORMATION: NA.

Division: NWD District: NWK Project Name: Pomme de Terre Lake, MO

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance
D the

PROJECT NAME: Pomona Lake, KS

AUTHORIZATION: Flood Control Act of 1954 (P.L. 83-780)

LOCATION AND DESCRIPTION: The project is located in Osage County, Kansas, approximately 8 miles northwest of Pomona and 34 miles upstream from Ottawa. This project provides flood protection, water quality, and recreation to the State of Kansas and the region.

RECOVERY ACT ALLOCATIONS TO DATE: \$2,210,000

PRESIDENT'S BUDGET FOR FY2011: \$1,965,000

BUDGET FOR FY2012: M: \$557,000 O: \$1,814,000 T: \$2,371,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$0 – NA.

FRM: \$1,402,000 - Critical routine operations and maintenance for flood risk management.

Rec: \$772,000 - Activites required to open parks to accomodate visitation.

Hydro: \$0 – NA.

ES: \$193,000 - This is the minimum amount necessary to accomplish essential and critical cultural resource work efforts, which provides for basic stewardship of cultural resources at lake projects and compliance with Sections 106 and 110 of the National Historic Preservation Act. Also included is tree cutting/pruning, seeding, erosion control projects, gate installation and maintenance, controlled burns, detection and control of invasive species, lake wide water sampling, and bald eagle monitoring of eagle nests.

WS: \$4,000 - Critical routine operations performed under the Water Supply Agreement.

OTHER INFORMATION: NA.

Division: NWD

District: NWK

Project Name: Pomona Lake, KS

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Puget Sound and its Tributary Waters, WA

AUTHORIZATION: The Rivers and Harbor Act of 1892.

LOCATION AND DESCRIPTION: The Puget Sound and its Tributary Waters in Washington State. Removal of all hazards to navigation in the Federal Navigation Channel waters.

RECOVERY ACT ALLOCATIONS TO DATE: \$1,132,000

PRESIDENT'S BUDGET FOR FY 2011: T: \$905,000

BUDGET FOR FY 2012: M: \$995,000 O: \$ 0 T: \$995,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by B/L as needed) FOR FY 2012:

N: \$995,000 Funding provides for routine operations and maintenance for debris vessel PUGET, within Puget Sound Waters. This includes the removal of all hazards to navigation in the Federal Navigation Channel waters of Puget Sound and disposal of the collected debris, thus preventing collision hazards for industry and public users. When collected debris is disposed of, usable wood is recycled for a cost savings to the Government or given to Government agencies for restoration work.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Rathbun Lake, IA

AUTHORIZATION: Flood Control Act of 1954, P.L. 83-780.

LOCATION AND DESCRIPTION: The project is located on the Chariton River, near Centerville, IA, and is located in Wayne, Lucas, Monroe and Appanoose Counties. Regional Benefits include: Flood damage reduction on the Chariton, Missouri and Mississippi Rivers; recreation; fish and wildlife management; downstream water quality improvement; and water supply for one of the largest rural water systems in the country, the Rathbun Regional Water Association (RRWA).

RECOVERY ACT ALLOCATIONS TO DATE: \$4,653,000

PRESIDENT'S BUDGET FOR FY2011: \$2,501,000

BUDGET FOR FY2012: M: \$240,000 O: \$1,944,000 T: \$2,184,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$0 – NA.

FRM: \$1,015,000 - Critical routine operations and maintenance for flood risk management, dewatering, and relief well rejuvenation.

Rec: \$996,000 - Activities required to open parks to accommodate visitation.

Hydro: \$0 – NA.

ES: \$166,000 - This is the minimum amount necessary to accomplish essential and critical cultural resource work efforts, which provides for basic stewardship of cultural resources at lake projects and compliance with Sections 106 and 110 of the National Historic Preservation Act. Also included is tree cutting/pruning, seeding, erosion control projects, gate installation and maintenance, controlled burns, detection and control of invasive species, lake wide water sampling, and bald eagle monitoring of eagle nests.

WS: \$7,000 - Critical routine operations performed under the Water Supply Agreement.

OTHER INFORMATION: NA.

Division: NWD

District: NWK

Project Name: Rathbun Lake, IA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Rogue River at Gold Beach, OR

AUTHORIZATION: River and Harbor Act of: 3 Sep1954 and P.L. 83-780

LOCATION AND DESCRIPTION: The project is located on the Oregon coast, 264 miles south of the entrance to the Columbia River. The project includes a north (3,300-foot long) and south (3,400-foot long) jetty system with channel entrance 650-foot long, 300-foot wide, to turning basin 500-foot wide with a depth of 13-feet. The Gold Beach Boat Basin has a channel 2,100-foot long, 100-foot wide leading to turning basin 600-foot long, 150-foot wide and a depth of 10-feet.

RECOVERY ACT ALLOCATIONS TO DATE: \$ 183,000

PRESIDENT'S BUDGET FOR FY2011: \$ 579,000

BUDGET FOR FY2012: M: \$ 574,000 O: \$ 0 T: \$ 574,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$ 574,000 - Funding will be used for annual dredging needed for safe transit of commercial and recreational vessels.

FRM: \$ 0 - N/A

REC: \$ 0 - N/A

Hydro: \$ 0 - N/A

ES: \$ 0 - N/A

WS: \$ 0 - N/A

OTHER INFORMATION: N/A

Division: NWD

District: NWP

Project Name: Rogue River at Gold Beach, OR

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Salt Creek Projects, NE

AUTHORIZATION: PL 78-534, PL 85-500.

LOCATION AND DESCRIPTION: The Salt Creek and Tributaries Flood Control Project in Nebraska was authorized by the Federal Flood Control Act of 1958 to provide flood damage reduction, water quality, recreation, and fish and wildlife enhancement. The basin drains a 1645 square mile area of southeastern Nebraska, encompassing the City of Lincoln. Salt Creek enters the Platte River from the right bank 25 miles southwest of Omaha and drains the southern and western part of the basin, while Wahoo Creek drains the northeastern portion. The ten Salt Creek Lakes furnish much needed recreation for local residents as well as providing vital habitat for wildlife. These projects cover 11,239 acres, of which 4,289 are surface acres of water. The Corps of Engineers leases all but one of its Salt Creek Reservoirs to the State of Nebraska Game and Parks Commission (NGPC). The NGPC refers to these projects as the Salt Valley Lakes. Holmes Lake is leased to the City of Lincoln, Nebraska.

RECOVERY ACT ALLOCATIONS TO DATE: \$388,000

PRESIDENT'S BUDGET FOR FY2011: \$1,067,000

BUDGET FOR FY2012: M: \$172,000 O: \$1,095,000 T: \$1,267,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY2012:

N: \$0 – N/A

FRM: \$1,154,000 - Funding will be used to meet the O&M requirements of the Flood Risk Management mission. Activities include performing routine critical operations and maintenance required to operate the project, necessary engineering, oversight, inspection and monitoring to assure continued safe operation of the project. Scheduled non-routine work includes periodic dam safety inspections and supporting surveys, hydrologic freeboard evaluation and investigation of conduit piping and drainage.

Rec: \$16,000 - Funding will allow the Corps to meet minimum O&M requirements for providing quality public outdoor recreation experiences for the public. Routine activities will include recreation management, interpretive services, public outreach, visitor assistance program, Title 36 enforcement, reservation services support, recreation use fee management, and completion of updates to required management plans.

Hydro: \$0 – N/A

ES: \$97,000 - Funding will be used to meet the O&M requirements of the Environmental Stewardship mission. Routine and non-routine activities for this year will include natural resource inventories, special status species monitoring, invasive species control, and implementation of mitigation requirements.

WS: \$0 – N/A

OTHER INFORMATION: Five of the ten Salt Creek Dams have been assigned a Dam Safety Action Classification of III. A dam with this classification has confirmed and/or unconfirmed safety issues that could potentially pose a combination of significant life or economic risk. Funding supports investigation of dam safety issues.

Division: NWD

District: NWO

Project Name: Salt Creek Projects

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Seattle Harbor, WA

AUTHORIZATION: The Rivers and Harbors Act of March 2, 1919.

LOCATION AND DESCRIPTION: Seattle Harbor is located on the east side of central Puget Sound in Washington State. The project is located on the lower Duwamish River from Elliott Bay upstream approximately five miles along the river to the head of the federal navigation channel. The project consists of the East Waterway, 34 to 51 feet deep; the West Waterway, 34 feet deep; Duwamish Waterway, 30 feet deep for 2.6 miles, 20 feet deep for 0.8 miles, and 15 feet deep for 1.8 miles to the head of navigation.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

PRESIDENT'S BUDGET FOR FY 2011: T: \$951,000

BUDGET FOR FY 2012: M: \$4,240,000 O: \$0 T: \$4,240,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by B/L as needed) FOR FY 2012:

N: \$4,240,000 Funds will be used for the removal of shoaling of unsuitable sediment in the river which has restricted navigation access to the Turning Basin and subsequent upland disposal in a commercial landfill. Funding will allow removal and disposal of shoaled sediment which would greatly increase the capacity of the Turning Basin and downstream reaches which capture the annual flow of clean sediments in the upper reaches of the river in the clean reach of the channel. This action will reduce sedimentation rates of clean material on top of contaminated areas further down this aquatic Superfund site, ultimately reducing CERCLA cleanup costs and reducing O&M routine maintenance costs. Funds will be used for survey of the entire waterway and environmental coordination for future dredging actions.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: N/A

Division: NWD

District: NWS

Project Name: Seattle Harbor, WA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Siuslaw River, OR

AUTHORIZATION: The Rivers and Harbors Act of 1890, as amended, and Section 107 Continuing Authority, 1890 (build jetties), 1925 (12' channel), 1958 (deepen to 16')

LOCATION AND DESCRIPTION: The project is located at the Siuslaw River, Oregon, approximately 130 miles south of the Columbia River. The project provides for navigation access to the Siuslaw River and consists of two high-tides, rubble-mound jetties 750-feet apart at the outer end: the north jetty 8,390-foot long, and the south jetty 4,200-foot long. The project also includes: an entrance channel 18-foot deep and 300-foot wide from the deep water in the ocean to a point 1,500-feet inside the outer end of the existing north jetty; a channel 16-foot deep, 200-foot wide with additional widening at bends, and about 5 miles long, to a turning basin which is 16-foot deep, 400-foot wide, and 600-foot long, opposite the Siuslaw dock at Florence; a channel 12-foot deep, 150-foot wide from Florence to mile 16.5; a turning basin 12-foot deep, 300-foot wide, and 500-foot long at RM 15.5.

RECOVERY ACT ALLOCATIONS TO DATE: \$ 2,969,000

PRESIDENT'S BUDGET FOR FY2011: \$ 708,000

BUDGET FOR FY2012: **M:** \$ 551,000 **O:** \$ 0 **T:** \$ 551,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$ 551,000 - Funding will be used for annual dredging needed for safe transit of commercial and recreational vessels.

FRM: \$ 0 - N/A

REC: \$ 0 - N/A

Hydro: \$ 0 - N/A

ES: \$ 0 - N/A

WS: \$ 0 - N/A

OTHER INFORMATION: N/A

Division: NWD

District: NWP

Project Name: Siuslaw River, OR

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Smithville Lake, MO

AUTHORIZATION: Flood Control Act of 1965 (P.L. 89-298)

LOCATION AND DESCRIPTION: Smithville Lake is about 1 mile northeast of Smithville and about 5 miles north of Kansas City, in Clay and Clinton counties, Missouri. The project provides flood protection, water supply, water quality, and recreation to the surrounding area, and greater metropolitan Kansas City, Missouri.

RECOVERY ACT ALLOCATIONS TO DATE: \$2,370,000

PRESIDENT'S BUDGET FOR FY2011: \$1,160,000

BUDGET FOR FY2012: M: \$226,000 O: \$1,031,000 T: \$1,257,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$0 – NA.

FRM: \$917,000 - Critical routine operations and maintenance for flood risk management and relief well rejuvenation.

Rec: \$123,000 - Activities required to open parks to accommodate visitation.

Hydro: \$0 – NA.

ES: \$213,000 - Provides for basic stewardship of cultural resources at lake projects and compliance with Sections 106 and 110 of the National Historic Preservation Act. Investigations include project review, field investigations, and coordination with various state historical societies. Provide basic stewardship of soil, water, vegetative and wildlife resources on project lands. Monitor soil erosion on lake shore and 40 agricultural leases and implement improvements as necessary by placing rip rap on disturbed areas and planting native grass strips in erosion reduction zones. Mow, spray, edge feather, disk, and plant food plots on 15 quail management areas and public hunting areas. Remove invasive species from administrative and public hunting grounds including lespedeza, multi-flora rose, honey locust, and Russian olives.

WS: \$4,000 - Critical routine operations performed under the Water Supply Agreement.

OTHER INFORMATION: NA.

Division: NWD

District: NWK

Project Name: Smithville Lake, MO

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Stillaguamish River, WA

AUTHORIZATION: Sec 5 of the Flood Control Act of 1936 (Public No. 738) dated 22 June 1936.

LOCATION AND DESCRIPTION: The project is located downstream of Arlington in Snohomish County, in northwestern Washington state. The project provides for works to reduce bank erosion and channel changes on the Stillaguamish River between Arlington and the head of Hat Slough, a distance of 15 miles, and on Cook Slough, 3 miles long, as follows: Revetments at 26 places on the river and Cook Slough; a concrete control weir 275 feet long between steel-sheet pile piers at the head of Cook Slough to limit flow through the slough; and two cut-off channels, each about 900 feet long, to eliminate sharp bends of Cook Slough.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

PRESIDENT'S BUDGET FOR FY 2011: T: \$265,000

BUDGET FOR FY 2012: M: \$0 O: \$271,000 T: \$271,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by B/L as needed) FOR FY 2012:

N: N/A

FRM: \$271,000 Budgeted funds will be used to continue brushing bank revetments, and normal maintenance and repair of bank erosion from winter flows. Further work will entail a design and coordination work for the Cook Slough weir rehabilitation. Brushing will occur in the March/April timeframe.

Rec: N/A.

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Stockton Lake, MO

AUTHORIZATION: Flood Control Act of 1954 (Public Law 83-780)

LOCATION AND DESCRIPTION: Stockton Lake is located in Cedar, Dade, and Polk counties, approximately 1 mile east of Stockton, Missouri. This project provides flood protection, hydropower, water supply, fish and wildlife, and recreation to southwest Missouri.

RECOVERY ACT ALLOCATIONS TO DATE: \$46,555,000

PRESIDENT'S BUDGET FOR FY2011: \$4,153,000

BUDGET FOR FY2012: M: \$1,559,000 **O:** \$2,336,000 **T:** \$3,895,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$0 – NA.

FRM: \$471,000 - Critical routine operating costs necessary to meet minimum operating requirements of the power plant, and generation and transmission equipment. Also, critical remaining routine program joint maintenance and repair costs (i.e. vegetation removal, dam safety inspections, instrumentation, etc.) necessary for the safe operation of the dam, and joint operating costs necessary for water management (water control & quality) activities.

Rec: \$1,424,000 - Activities required to open parks to accommodate visitation.

Hydro: \$1,779,000 - Essential operating costs necessary to meet minimum operating requirements of the power plant funds critical routine operations of generation and transmission equipment. The power plant plays a critical part in producing power for customers within the Southwestern Power Administrations region.

ES: \$214,000 - This is the minimum amount necessary to accomplish essential and critical cultural resource work efforts, which provides for basic stewardship of cultural resources at lake projects and compliance with Sections 106 and 110 of the National Historic Preservation Act. Also included is tree cutting/pruning, seeding, erosion control projects, gate installation and maintenance, controlled burns, detection and control of invasive species, lake wide water sampling, and bald eagle monitoring of eagle nests.

WS: \$7,000 - Critical routine operations performed under the Water Supply Agreement.

OTHER INFORMATION: NA.

Division: NWD

District: NWK

Project Name: Stockton Lake, MO

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Surveillance of Northern Boundary Waters, OR

AUTHORIZATION: Boundary Waters Treaty of 1909 between US and Canada; Columbia River Treaty of 1961 and Exchange of Notes 1964 between US and Canada

LOCATION AND DESCRIPTION: Columbia River Basin. The project provides for Corps participation as a member of the U.S. Entity, along with Bonneville Power Administration (BPA), for implementation of the 1964 Columbia River Treaty (CRT) with Canada. Implementation includes participation in a joint Operating Committee with BPA and British Columbia Hydro and Power Authority (BC Hydro) charged with annual development of plans for the operation of reservoir storage in three Canadian projects to meet the flood control and power objectives of the treaty and for other mutually beneficial purposes.

RECOVERY ACT ALLOCATIONS TO DATE: \$ 0

PRESIDENT'S BUDGET FOR FY2011: \$ 4,100,000

BUDGET FOR FY2012: M: \$ 0 O: \$ 7,400,000 T: \$ 7,400,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$ 0 - N/A

FRM: \$ 7,400,000 – CRT 2014/2024 Review activities will continue with focus on completing technical comprehensive Phase 2a Flood Risk Assessment, including development of hydraulic models, collection of floodplain data, levee assessments and surveys, and economic surveys needed to develop flood stage/damage curves.

REC: \$ 0 - N/A

Hydro: \$ 0 - N/A

ES: \$ 0 – N/A

WS: \$ 0 - N/A

OTHER INFORMATION: N/A

Division: NWD

District: NWP

Project Name: Applegate Lake, OR

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Tacoma-Puyallup River, WA

AUTHORIZATION: Sec 5 of the Flood Control Act of 1936 (Public No. 738) dated 22 June 1936.

LOCATION AND DESCRIPTION: The project is located on the Puyallup River near Tacoma, WA. It provides for a channel with a capacity of 50,000 cubic feet per second between the East 11th Street bridge and the lower end of the inner-county improvement, a distance of about 2.2 miles, by straightening the channel, building levees, (revetted the channel and levees), and making all necessary bridge changes. The Flood Control Act of 28 June 1938 provides for Federal maintenance of the project. The improvement was planned in conjunction with Mud Mountain Dam, and affords protection against floods about 50 percent greater than the maximum discharge of record.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

PRESIDENT'S BUDGET FOR FY 2011: T: \$142,000

BUDGET FOR FY 2012: M:\$0 O: \$145,000 T: \$145,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by B/L as needed) FOR FY 2012:

N: N/A

FRM: \$145,000 The funds will be used to brush excessive vegetation from levee tops and side slopes, grading of levee top, pickup garbage, and control noxious weeds and to manage and coordinate project modifications and real estate actions.

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: The Dalles Lock and Dam, WA & OR

AUTHORIZATION: 1950 Flood Control Act, P.L. 81-516

LOCATION AND DESCRIPTION: On the Columbia River, 90 miles east of Portland, Oregon. Multi-purpose with power; 1 Dam, spillways and fish passage; 1 NavLock, 1 Powerhouse with 24 generating units and Recreation sites.

RECOVERY ACT ALLOCATIONS TO DATE: \$ 1,361,000

PRESIDENT'S BUDGET FOR FY2011: \$ 8,702,000

BUDGET FOR FY2012: **M:** \$ 968,000 **O:** \$2,268,000 **T:** \$ 3,236,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$ 1,794,000 - Critical minimum navigation lock operations & maintenance including periodic navlock inspections. Includes Joint allocation.

FRM: \$ 0 - N/A

REC: \$ 580,000 - Critical routine operation & maintenance of recreational activities and management of all recreational lands and facilities.

Hydro: \$ 0 - Costs have been allocated to the appropriate business line. Routine operation and maintenance of Hydropower plant is Power Marketing Agency direct funded.

ES: \$ 862,000 - Critical routine operation & maintenance to meet mitigation requirements for fish passage facilities & natural resource management and ESA mandates.

WS: \$ 0 - N/A

OTHER INFORMATION: N/A

Division: NWD

District: NWP

Project Name: The Dalles Lock and Dam, WA & OR

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Tuttle Creek Lake, KS

AUTHORIZATION: Flood Control Acts of 1938 (P.L. 75-761), 1941 (P.L. 77-228), 1944 (P.L. 78-645), WRDA 1986 (P.L. 99-662)

LOCATION AND DESCRIPTION: The project is located at mile 10 on the Big Blue River, 6 miles north of Manhattan in Riley County, Kansas. The project provides flood protection, low-flow supplementation to the Kansas and Big Blue Rivers, navigation supplementation on the Missouri River, water quality, and recreation to the State of Kansas and the region.

RECOVERY ACT ALLOCATIONS TO DATE: \$3,881,000

PRESIDENT'S BUDGET FOR FY2011: \$2,644,000

BUDGET FOR FY2012: M: \$508,000 **O:** \$1,731,000 **T:** \$2,239,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$0 – NA.

FRM: \$1,428,000 - Critical routine operations and maintenance for flood risk management and bridge inspection.

Rec: \$556,000 - Activities required to open parks to accommodate visitation.

Hydro: \$0 – NA.

ES: \$248,000 - This is the minimum amount necessary to accomplish essential and critical cultural resource work efforts, which provides for basic stewardship of cultural resources at lake projects and compliance with Sections 106 and 110 of the National Historic Preservation Act. Also included is tree cutting/pruning, seeding, erosion control projects, gate installation and maintenance, controlled burns, detection and control of invasive species, lake wide water sampling, and bald eagle monitoring of eagle nests. The BiOP for the MORiver mainstem master manual recognizes that regulation of flows from the Kansas River for flood control and navigation has adverse impacts on Least tern and piping plover nesting on the Kansas River. This work provides for the monitoring and evaluation of nesting activities and fulfills requirements of the current Biological Opinion.

WS: \$7,000 - Critical routine operations performed under the Water Supply Agreement.

OTHER INFORMATION: NA.

Division: NWD

District: NWK

Project Name: Tuttle Creek Lake, KS

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Willamette River at Willamette Falls, OR

AUTHORIZATION: Rivers and Harbors Act of 1910 (P.L. 61-264)

LOCATION AND DESCRIPTION: Willamette Falls Locks is a multiple-lift navigation lock located on the Willamette River in West Linn, Oregon. The lock is 131 years old and has been operated and maintained by the Corps since 1913.

RECOVERY ACT ALLOCATIONS TO DATE: \$ 2,095,000

PRESIDENT'S BUDGET FOR FY2011: \$ 92,000

BUDGET FOR FY2012: **M:** \$ 0 **O:** \$ 104,000 **T:** \$ 104,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$ 104,000 – Funding will be used to provide critical operation for caretaker status activities.

FRM: \$ 0 - N/A

REC: \$ 0 - N/A

Hydro: \$ 0 - N/A

ES: \$ 0 - N/A

WS: \$ 0 - N/A

OTHER INFORMATION: N/A

Division: NWD

District: NWP

Project Name: Willamette River at Willamette Falls, OR

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Willamette River Bank Protection, OR

AUTHORIZATION: Flood Control Acts; 1936 (bank protection and channel clearing), 1938 PL. 75-685 (added flood protection), 1950 PL. 81-519 (add'l 77 locations)

LOCATION AND DESCRIPTION: Approximately 90 miles of bank protection, drift embankments, drift barriers and channel improvements at 223 locations along the Willamette River and its tributaries from about River Mile 25 to River Mile 225 on the Willamette River Basin.

RECOVERY ACT ALLOCATIONS TO DATE: \$ 345,000

PRESIDENT'S BUDGET FOR FY2011: \$ 85,000

BUDGET FOR FY2012: M: \$ 0 O: \$ 459,000 T: \$ 459,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$ 0 - N/A

FRM: \$ 459,000 – Annual Levee Inspections. Includes labor, travel and contract costs to inspect 134 sites by helicopter, develop reports and letters for public sponsors. Done in conjunction with Willamette River Bank Protection sites and bank protection at other Corps projects.

REC: \$ 0 - N/A

Hydro: \$ 0 - N/A

ES: \$ 0 - N/A

WS: \$ 0 - N/A

OTHER INFORMATION: N/A

Division: NWD District: NWP Project Name: Willamette River Bank Protection, OR

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Willow Creek Lake, OR

AUTHORIZATION: 1965 Flood Control Act, P.L. 89-298

LOCATION AND DESCRIPTION: On Willow Creek at Heppner, Oregon; flood reduction, roller compacted concrete dam, ancillary features include center uncontrolled spillway, minor flow works and diversion works, outlet works & reservoir.

RECOVERY ACT ALLOCATIONS TO DATE: \$ 0

PRESIDENT'S BUDGET FOR FY2011: \$657,000

BUDGET FOR FY2012: **M:** \$ 102,000 **O:** \$ 583,000 **T:** \$ 685,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$ 0 - N/A

FRM: \$ 677,000 – Critical operation & maintenance of flood control dam, reservoir, service facilities, and permanent operating equipment.

REC: \$ 0 - N/A

Hydro: \$ 0 - N/A

ES: \$ 8,000 - Critical routine operation & maintenance to meet mitigation requirements for fish passage facilities & natural resource management and ESA mandates.

WS: \$ 0 - N/A

OTHER INFORMATION: N/A

Division: NWD

District: NWP

Project Name: Willow Creek Lake, OR

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Wilson Lake, KS

AUTHORIZATION: Flood Control Act of 1944 (Public Law 78-534)

LOCATION AND DESCRIPTION: Wilson Lake is located near Russell, in Russell County, Kansas. A small arm of the lake extends into Lincoln County. The Corps of Engineers lake project purposes include flood protection, recreation, navigation (until irrigation is developed), irrigation (when developed), fish and wildlife, and water quality.

RECOVERY ACT ALLOCATIONS TO DATE: \$3,675,000

PRESIDENT'S BUDGET FOR FY2011: \$1,415,000

BUDGET FOR FY2012: M: \$439,000 **O:** \$1,168,000 **T:** \$1,607,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$0 – NA.

FRM: \$928,000 - Critical routine operations and maintenance for flood risk management.

Rec: \$576,000 - Activities required to open parks to accommodate visitation.

Hydro: \$0 – NA.

ES: \$95,000 - This is the minimum amount necessary to accomplish essential and critical cultural resource work efforts, which provides for basic stewardship of cultural resources at lake projects and compliance with Sections 106 and 110 of the National Historic Preservation Act. Also included is tree cutting/pruning, seeding, erosion control projects, gate installation and maintenance, controlled burns, detection and control of invasive species, lake wide water sampling, and bald eagle monitoring of eagle nests. Base effort for the prevention of the direct, immediate degradation of loss of natural resources. Increased effort to return project prairie lands to a sustainable condition through the implementation of prescribed fire and invasive species management.

WS: \$8,000 - Critical routine operations performed under the Water Supply Agreement.

OTHER INFORMATION: NA.

Division: NWD

District: NWK

Project Name: Wilson Lake, KS

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Yaquina Bay and Harbor, OR

AUTHORIZATION: Rivers and Harbors Act of: 14 Jun 1880, 2 Mar 1919 (construct jetties), 1945 (26' channel), 1946 (construct boat basin), 1958 (deepen 40 entrance, 30' river channel) 1960 (boat basin S. shore) P.L. 86-645.

LOCATION AND DESCRIPTION: On the Oregon Coast about 110 miles south of the Columbia River. Deep draft project with two stone jetties; small boat access channel and South Beach Marina.

RECOVERY ACT ALLOCATIONS TO DATE: \$ 0

PRESIDENT'S BUDGET FOR FY2011: \$ 1,786,000

BUDGET FOR FY2012: M: \$ 1,870,000 O: \$ 92,000 T: \$ 1,962,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$ 1,962,000 - Funding will be used for annual dredging needed for safe transit of commercial and recreational vessels.

FRM: \$ 0 - N/A

REC: \$ 0 - N/A

Hydro: \$ 0 - N/A

ES: \$ 0 - N/A

WS: \$ 0 - N/A

OTHER INFORMATION: N/A

Division: NWD

District: NWP

Project Name: Yaquina Bay and Harbor, OR

PACIFIC OCEAN DIVISION

PACIFIC OCEAN DIVISION
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FLOOD AND COASTAL STORM DAMAGE REDUCTION

INVESTIGATIONS

APPROPRIATION TITLE: Investigations, Fiscal Year 2012

Pacific Ocean Division

Study		Total	Allocation		President's	Tentative	Additional	
		Estimated Federal Cost	Prior to FY2009	Allocation FY 2009	Allocation FY 2010	Budget FY 2011	Allocation FY 2012	to Complete After FY 2012
		\$	\$	\$	\$	\$	\$	
Yakutat Flood Risk Management, AK Alaska District	Annual Allocations	3,119,000	1,810,000	669,000	90,000	450,000	100,000	0
	ARRA Allocations			0	0			
	Total Allocations	3,119,000	1,810,000	669,000	90,000	450,000	100,000	0

The study area is located in and near Yakutat. Yakutat is isolated among the lowlands along the Gulf of Alaska, 225 miles northwest of Juneau and 220 miles southeast of Cordova. The reconnaissance study determined that there is a Federal interest in participating in a feasibility study to investigate potential flood damage reduction improvements to protect nearby resources, notably the airport and the world-class fishery resources of the Situk River watershed. Flooding may result from the continued advancement of the nearby Hubbard Glacier, the largest tidewater glacier in North America. Hubbard Glacier, has closed off Russell Fjord twice in the last 20 years, and has continued to reduce the gap to close off Russell Fjord and initiate the sequence leading to a flooding event in recent years. In response to the study authority, the reconnaissance study was initiated in February of 2004. Local interests for this study include the City and Borough of Yakutat and the Alaska Department of Transportation and Public Facilities. Project collaborators include the U. S. Forest Service, the Corps Cold Regions Research and Engineering Laboratory, and glaciologists from the University of Alaska Fairbanks and other academia. The City and Borough of Yakutat is the local sponsor with support from the federally recognized Yakutat Tlingit Tribe. Over 46% of the community is 'Alaska Native'. Subsistence, commercial fishing, and tourism based on the Situk River, are the mainstay of the community.

Prior study work was accomplished at 100% Federal cost under the authority of Section 117, P.L. 108-447, Division C. This law was repealed by Section 117 of the 2009 Omnibus Act. A new scope and agreement are being finalized to continue this work. Existing funds are being used to negotiate a General Investigations Feasibility Cost-Share Agreement and continue the watershed study to a Feasibility Scoping Meeting. The study is being done in collaboration with the U.S. Forest Service and local and state interests. Fiscal Year 2011 funds will be used to develop potential non-structural mitigation measures. The watershed feasibility study will be continued into identification of potential alternatives, and gathering of detailed economic, environmental, engineering and regulatory data for analysis of actions that could reduce the impact of a Hubbard Glacier closure on Yakutat. Glaciological data may be collected to develop a model for predicting the potential for a stable ice dam to develop. If a stable ice dam develops and continues, the lake level of Russell Fjord will rise and overflow into the Situk River, causing major environmental and economic losses to the area. The fisheries of the Situk River are the economic lifeline of the community.

Total Estimated Study Cost	\$4,612,000
Reconnaissance Phase (Federal)	483,000
Feasibility Phase (Federal)	2,636,000
Feasibility Phase (Local)	1,493,000

Completion of the feasibility study is estimated at December 2013 with most efficient funding.

AQUATIC ECOSYSTEM RESTORATION

INVESTIGATIONS

ILLUSTRATION A-2.2
COST-SHARED FEASIBILITY STUDY

APPROPRIATION TITLE: General Investigations, Fiscal Year 2012

Pacific Ocean Division

Study	Total Estimated Federal Cost \$	Allocation Prior to FY2009 \$	Allocation FY 2009 \$	Allocation FY 2010 \$	President's Budget FY 2011 \$	Tentative Allocation FY 2012 \$	Additional to Complete After FY 2012 \$
Ala Wai Canal, HI	4,135,000	2,510,000	167,000	408,000	408,000	400,000	242,000
Honolulu District			0	0			
Annual Allocations	4,135,000	2,510,000	167,000	408,000	408,000	400,000	242,000
ARRA Allocations			0	0			
Total Allocations	4,135,000	2,510,000	167,000	408,000	408,000	400,000	242,000

The Ala Wai watershed encompasses more than 16 square miles. The Ala Wai Canal within the watershed is a two-mile long man-made waterway constructed during the 1920's to create and protect the Waikiki area on the island of Oahu. The carrying capacity of the Canal has been significantly reduced by accumulation of silt and debris from the Manoa, Palolo, and Makiki streams. During the November 1965 and December 1967 storms and passage of Hurricane Iniki in 1992, the Ala Wai Canal was overtopped causing flooding in the Waikiki district. Additionally, the 30 October 2004 storm in Manoa is estimated to have caused over \$100M in damages to property and irreplaceable documents in the University of Hawaii's library, causing the community and agencies to seek the expansion of the Ala Wai Canal project for flood mitigation measures in the upper stream areas. It is estimated that approximately 2,200 properties would be affected by a 100-year storm event in the Ala Wai watershed.

The Ala Wai Watershed supports important habitat for marine, estuarine and freshwater ecosystems. Endemic amphidromous species such as native gobies and shrimp that had once utilized the Ala Wai Watershed as a migratory pathway from the mountains to the sea have experienced significant losses in population due to loss of habitat. A rare native gastropod – the Hapa Wai – only resides in the Manoa-Palolo Canal. The coral reef ecosystems in the Waikiki Marine Line Conservation District is threatened by land based pollutants and other activities. The accumulation of silt and pollutants over the years has resulted in a steady decline in water quality and has affected water flow and circulation. The streams in the Ala Wai watershed support some of the highest levels of contaminants in the nation according to the EPA Section 303(d) listing under Clean Water Act.

The Ala Wai Canal Project, a cooperative effort with Federal, State and local agencies to develop an effective comprehensive management and restoration plan, will need to be implemented to restore aquatic habitat and biological diversity once present in the canal and upstream tributaries. The project goal is to improve the overall quality of the Ala Wai watershed, from the crest of the Ko'olau Mountains to the nearshore waters, while minimizing the risk of flood damages to the public. Objectives of the study include flood risk management, ecosystem restoration, addressing coastal issues, improving water quality, improving water supply, improving recreation opportunities, addressing infrastructure maintenance issues and stakeholder involvement.

The feasibility cost sharing agreement (FCSA) was initially executed in April 2001 with the State Department of Land and Natural Resources and amended in August 2006 to expand the study scope and cost. Fiscal Year 2011 funds are being used to continue feasibility phase studies to include completion of the feasibility scoping meeting package and development of the alternatives formulation briefing package. Fiscal Year 2012 funds will be used to continue the feasibility phase studies to include completion of the alternatives formulation briefing package, conducting the Alternatives Formulation Briefing, conduct the Independent External Peer Review at 100% federal cost, and publication of the Draft EIS. Due to complexities in conducting the hydraulic modeling for this watershed, the lack of existing resources and models for ecosystem valuation and restoration planning in Hawaii, and the complexities of evaluating multi-purpose alternatives in an urbanized watershed, the project budget increased by approximately \$2.5M. The PDT is working on an amendment to the FCSA which is scheduled to be completed in FY11. The total estimated cost of the feasibility phase is \$7.82M, which will be shared on a 50-50 percent basis by Federal and non-

ILLUSTRATION A-2.2
COST-SHARED FEASIBILITY STUDY

APPROPRIATION TITLE: General Investigations, Fiscal Year 2012

Pacific Ocean Division

Federal interests, except for the Independent Peer Review which is funded at 100% federal cost. The completion date of the feasibility study is to be determined. A summary of study cost sharing is as follows:

Total Estimated Study Cost	\$7,945,000
Reconnaissance Phase (Federal)	125,000
Feasibility Phase (Federal)	4,010,000
Feasibility Phase (Non-Federal)	3,810,000

APPROPRIATION TITLE: Investigations, Fiscal Year 2012

Pacific Ocean Division

Study		Total	Allocation	President's			Tentative	Additional
		Estimated Federal Cost	Prior to FY2009	Allocation FY 2009	Allocation FY 2010	Budget FY 2011	Allocation FY 2012	to Complete After FY 2012
		\$	\$	\$	\$	\$	\$	\$
Matanuska Watershed, AK Alaska District	Annual Allocations	2,746,000	701,000	175,000	90,000	100,000	100,000	1,580,000
	ARRA Allocations	468,500	0	372,000	96,500	0	0	0
	Total Allocations	3,214,500	701,000	547,000	186,500	100,000	100,000	1,580,000

The Matanuska-Susitna Watershed is located about 50 miles north of Anchorage in the Matanuska-Susitna Borough. The Matanuska-Susitna Borough has experienced accelerated development in recent years (~4%/year) with resulting concerns about flooding, stream bank erosion, aquatic habitat degradation, and overall health within their watershed. The proposed collaborative study includes partners such as the Matanuska Watershed Coalition, The Native Village of Chickaloon, and the Mat-Su Salmon Partnership, a pilot project under the National Fish Habitat Initiative. The study will investigate water resource related concerns in the Matanuska and Susitna watershed and develop a comprehensive water resources plan and provide the Borough, Federal and State agencies with a planning tool that will assist them in making better decisions related to future development within the watershed. In a collaborative effort with District Regulatory personnel, USEPA, and USFWS, the study will implement a comprehensive approach to managing wetland impacts and evaluating wetland quality so that appropriate mitigation can be applied on a consistent basis throughout the watershed. A Feasibility Cost Sharing Agreement was executed in September, 2007.

The study is being conducted under the Rivers and Harbors in Alaska Resolution, 2 December 1970. FY2010 and FY2011 funds are being used to continue feasibility study activities. Fiscal Year 2012 will be used to continue the feasibility study and gather important data needed to evaluate the water resource needs of the watershed.

Total Estimated Study Cost	\$6,133,700
Reconnaissance Phase (Federal)	295,300
Feasibility Phase (Federal)	2,919,200
Feasibility Phase (Local)	2,919,200

Completion of the feasibility study is scheduled for completion in Fiscal Year 2015.

OPERATION AND MAINTENANCE

Key to Abbreviations:

N = Navigation

FRM = Flood Risk Management

Rec = Recreation

Hydro = Hydropower

ES = Environmental Stewardship

WS = Water Supply

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Anchorage Harbor, AK

AUTHORIZATION: 1) Section 101, Rivers and Harbors Act of 1958 (House Doc. 34, 85th Congress, 1st Session). 2) Section 199 of WRDA 1976. 3) Section 118 of EWDA 2005.

LOCATION AND DESCRIPTION: The Port of Anchorage is located at the northern end of Cook Inlet in south-central Alaska. The project accommodates three dry cargo berths and two petroleum handling facilities. It serves as Alaska's regional and DOD strategic port and provides services to approximately 90% of the total population of Alaska, including five military bases. The Corps of Engineers has been dredging the Port of Anchorage annually at full federal expense to its authorized depth of -35 feet MLLW since the 1960's. Vessels with drafts up to 40 feet dock during high tide and offload their cargo, thus requiring full project depth year around.

RECOVERY ACT ALLOCATIONS TO DATE: \$27,127,400

PRESIDENT'S BUDGET FOR FY2011: \$14,013,000

BUDGET FOR FY2012: M: \$14,000,000 O: \$0.0 T: \$14,000,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$14,000,000 - Funds will be used to perform annual maintenance dredging to remove an estimated 1.4 million cubic yards of glacial silts and sands from the existing and newly expanded project area. The annual dredging period is from 15 May through 1 November. These funds would improve navigation performance by maintaining the availability and reliability of Anchorage Harbor that receives 90% of all goods entering the State of Alaska. Anchorage Harbor has been designated a strategic port and is also used by military vessels.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: The Port of Anchorage is expanding the intermodal facility that will move the dock 400 feet seaward and lengthen it by about 5,000 ft, nearly tripling its length, and doubling the uplands storage capacity. The dock expansion will increase the dredging area maintained by the Corps from approximately 115 acres to 202 acres. An Environmental Assessment and Findings of no Significant Impact was completed in August 2008.

Division: Pacific Ocean District: Alaska

Project Name: Anchorage Harbor, AK

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Barbers Point, Pacific Regional Visitor Center, Oahu, HI

AUTHORIZATION: Work is authorized in accordance with the general requirements of River and Harbor and Flood Control laws and administrative policy.

LOCATION AND DESCRIPTION: The Pacific Regional Visitor Center is located on the second floor of historic Battery Randolph at Fort DeRussy, Waikiki

RECOVERY ACT ALLOCATIONS TO DATE: \$54,800

PRESIDENT'S BUDGET FOR FY2011: \$245,000

BUDGET FOR FY2012: M: \$0 O: \$266,000. T: \$266,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: N/A

FRM: NA

Rec: \$266,000 Funding provides for full operation of the Regional Visitor Center (RVC) and continuation of exhibit upgrades initiated in FY10 at a constrained level. The RVC functions as an informational visitor center designed to educate the public of the Corps work in the Pacific and focuses on the POH's Civil Works Water Resources Development Program. The presentation also reflects the historic and ongoing relationship between the military and civil works in the Pacific. The RVC also participates in outreach activities such as Earth Day, Public Lands Day and Water Monitoring Day.

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Chena River Lakes Flood Control Project, AK

AUTHORIZATION: Flood Control Act of 13 August 1968, Public Law 90-483 (House Doc. 148, 90th Congress, 2nd Session) as adopted, provides for construction of a dam and floodway for the Chena River 17 miles east of Fairbanks.

LOCATION AND DESCRIPTION: The Chena River Lakes Flood Control Project is located in North Pole, Alaska. The 20,000-acre project consists of an 8 mile long zoned rock-filled dam that provides flood protection to Fairbanks, Alaska, and adjacent areas including Fort Wainwright, from recurring flood damage from the Chena River.

RECOVERY ACT ALLOCATIONS TO DATE: \$6,700,800

PRESIDENT'S BUDGET FOR FY2011: \$2,948,000

BUDGET FOR FY2012: M: \$905,000 O: \$2,043,000 T: \$2,948,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$2,341,000 is requested to provide annual project operations and maintenance for flood control. Approximately \$500,000 is required to initiate design to replace 20-year old crane. \$1,841,000 is required for dam operations. Operation of the dam at the minimum level of service prevents downstream flooding on average about once each year with average annual damages prevented of \$9,231,000

Rec: \$255,000 to perform routine management of the non-leased recreational lands and fund the annual law enforcement cooperation agreement with the local police department.. Funding of this increment prevents increased vandalism and prevents exposure of the Government to unwanted safety liabilities related to use of public lands.

Hydro: N/A

ES: \$352,000 to perform routine environmental compliance and stewardship activities relating to the natural resources management program. Funding of this increment will decrease the likelihood of citations and notice of violations for improper storage of hazardous materials, improper or unsafe working conditions, or environmental damage due to poor/insufficient maintenance of project features.

WS: N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Dillingham Harbor, AK

AUTHORIZATION: Rivers and Harbors Act, 3 July 1958 (House Doc. 390, 84th Congress, and 2nd Session) as adopted.

LOCATION AND DESCRIPTION: Dillingham Harbor provides half-tide access and all-tide moorage for about 320 commercial fishing and recreational craft. Commercial salmon fishing is the cornerstone of the community's economy with subsistence hunting and fishing continuing as vital local activities. The harbor is also a harbor of refuge, providing both moorage and an alternate landing area for lighterage vessels. All transportation to the area is by water or air.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

PRESIDENT'S BUDGET FOR FY2011: \$955,000

BUDGET FOR FY2012: M: \$987,000 O: \$0 T: \$987,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$987,000 - Funds will be used to continue annual maintenance dredging of the harbor and entrance channel to the congressionally authorized depth of +2 feet MLLW. This funding would maintain reliability and availability to commercial and subsistence fishing vessels to off-load fish products or re-supply for continued fishing.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Homer Harbor, AK

AUTHORIZATION: 1) Rivers and Harbors Act, 3 July 1958 (House Doc. 34, 85th Congress, 1st. Session) as adopted. 2) Rivers and Harbors Act, 19 August 1964 (P.L. 88-451) authorized as amended by the Chief of Engineers, 21 December 1971.

LOCATION AND DESCRIPTION: Homer Harbor located in Homer, Alaska, provides sheltered moorage for approximately 1,525 vessels. The project extends the fishing season an extra four months each year and is an integral part of Homer's economy.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

PRESIDENT'S BUDGET FOR FY2011: \$513,000

BUDGET FOR FY2012: M: \$453,000 O: \$0.0 T: \$453,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$453,000 - Funds will be used to perform annual maintenance dredging of the harbor entrance channel. This would enable commercial and subsistence fishing vessels harbor to off-load fish products for processing and be able to re-supply for continued operations. These funds would assure the continued availability of this critical harbor of refuge for the Cook Inlet commercial and subsistence fishing fleet.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: The maintenance dredging contract also includes maintenance dredging at the adjacent U. S. Coast Guard mooring basin using contributed funds provided under an interagency agreement. Waterborne commerce in 2008 was 230,068 tons.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Nawiliwili Small Boat Harbor, Kauai, HI

AUTHORIZATION: Work is authorized in accordance with the general requirements of River and Harbor and Flood Control laws and administrative policy.

LOCATION AND DESCRIPTION: The Nawiliwili Small Boat Harbor is located on the southeastern coast of the island of Kauai, state of Hawai'i, two miles southwest of the town of Lihue. The project was authorized in May 1964 under Section 107 of the River and Harbor Acts 1960, as amended. The project consists of an entrance channel 1,035 feet long, 120 feet wide and 12 feet deep; access channel 690 feet long, 80 feet wide, 8-10 feet deep; a revetted dike 1,458 feet long; a stub breakwater 142 feet long; and a breakwater 453 feet long. The project was completed in October 1974. The harbor has 82 berthing spaces and 5 multi-hull moorings.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

PRESIDENT'S BUDGET FOR FY2011: \$0

BUDGET FOR FY2012: M: \$250,000 O: \$0. T: \$250,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$250,000 - Provide funds to init/compl P&S to remove trees/vegetation overgrowth & to replace/reset armor stones on revetted dike, breakwater, & stub breakwater structures. Left unabated trees/vegetation overgrowth will further dislodge/separate/ deteriorate armor stones leading to eventual structural failure.

FRM: N/A

Rec: N/A.

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: The project was rated as marginal during the last inspection in May 2010; fair over the last 5 years. Original construction of the breakwater and revetted dike called for rough and irregular placement of the armor stone layer. The project is in need of maintenance and repair. Portions of the project are not able to be inspected due to the heavy vegetation along the revetted dike, breakwater, and stub. In addition to heavy vegetation, tree growth has dislodged the armor stones. Dislodged or missing armor stones along the breakwater structure need to be replaced to prevent further structural failure. The eroding crest needs to be filled in. The local sponsor is the State of Hawaii, Department of Land and Natural Resources, Division of Boating and Ocean Recreation.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Ninilchik Harbor, AK

AUTHORIZATION: Rivers and Harbors Act, 3 July 1958 (House Doc. 34, 85th Congress, and 1st Session) as adopted.

LOCATION AND DESCRIPTION: The Ninilchik Harbor is located in Ninilchik, Alaska, approximately 100 air miles southwest of Anchorage. The small boat basin provides protected moorage with half-tide access for 32 vessels. The basin and channel also provide access for Cook Inlet commercial fishing boats to unload their catch and take on supplies. The basin is an important harbor-of-refuge for lower Cook Inlet.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

PRESIDENT'S BUDGET FOR FY2011: \$420,000

BUDGET FOR FY2012: M: \$420,000 O: \$0.0 T: \$420,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY2012:

N: \$420,000 - Funds will be used to perform annual maintenance dredging of the basin and entrance channel. Funding will assure access for the commercial and subsistence fishing fleet to this critical harbor of refuge.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Nome Harbor, AK

AUTHORIZATION: Rivers and Harbors Act, 8 August 1917 (House Doc. 1932, 64th Congress, 2nd Session) as adopted by Public Law No. 37; and Section 101(a) (3), Public Law 106-53, WRDA 1999 for project improvements.

LOCATION AND DESCRIPTION: Nome Harbor is located on the southern coast of the Seward Peninsula in western Alaska. The city is approximately 540 miles northwest of Anchorage, and is the transportation and commerce center for Northwest Alaska. The recently completed improvement project consists of a new 3,600 foot-long entrance channel protected by a 3,025-foot long rubblemound breakwater, a new causeway bridge, a 270-foot long rubblemound breakwater extension on the existing causeway, and sediment collection basins. The harbor provides protected moorage for the existing 170 vessels as well as a fleet of 40 barges and transshipment vessels providing cargo and fuel service to the region.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

PRESIDENT'S BUDGET FOR FY2011: \$973,000

BUDGET FOR FY2012: M: \$1,066,000 O: \$0.0 T: \$1,066,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$1,066,000 - Funds will be used to perform annual maintenance dredging. Funding will assure 90% availability for this critical harbor of refuge, subsistence, and major commercial distribution and transfer center for Northwest Alaska and Seward peninsula.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: N/A

SOUTH ATLANTIC DIVISION

SOUTH ATLANTIC DIVISION
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CENTRAL AND SOUTHERN FLORIDA.....SAD-157

CANAVERAL HARBOR, FL.....SAD-158

CAPE FEAR RIVER ABOVE WIL, NC.....SAD-159

CARTERS DAM AND LAKE, GA.....SAD-160

CHARLESTON HARBOR, SCSAD-161

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EAST FORK, TOMBIGBEE RIVER, MS.....SAD-163

FALLS LAKE, NC.....SAD-164

GULF INTRACOASTAL WATERWAY, ALSAD-165

GULFPORT HARBOR, MS.....SAD-166

HARTWELL LAKE, GA&SC.....SAD-167

J STROM THURMOND LAKE, GA & SCSAD-168

JACKSONVILLE HARBOR, FL.....SAD-169

JIM WOODRUFF LOCK AND DAM, FL, AL & GA.....SAD-170

JOHN H KERR LAKE, VA & NCSAD-171

MANTEO (SHALLOWBAG) BAY, NC.....SAD-172

MOBILE HARBOR, AL.....SAD-173

MOREHEAD CITY HARBOR, NC.....SAD-174

OKATIBBEE LAKE, MSSAD-175

OKEECHOBEE WATERWAY, FLSAD-176

PALM BEACH HARBOR, FLSAD-178

PANAMA CITY HARBOR, FLSAD-179

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WEST POINT DAM AND LAKE, GA & AL.....	SAD-195
WILMINGTON HARBOR, NC.....	SAD-196

SOUTH ATLANTIC DIVISION

JUSTIFICATION OF ESTIMATE

FLOOD RISK MANAGEMENT

INVESTIGATIONS

APPROPRIATION TITLE: Investigations, Fiscal Year 2012

Division:

South Atlantic

Study		Total Estimated Federal Cost \$	Allocation Prior to FY 2009 \$	Allocation FY 2009 \$	Allocation FY 2010 \$	President's Budget FY 2011 \$	Tentative Allocation FY 2012 \$	Additional to Complete After FY 2012 \$
Edisto Island, SC	Annual Allocations	1,150,000	590,000	104,000	18,000	32,000	100,000	306,000
Charleston District	ARRA Allocations	0	0	0	0	0	0	0
	Total Allocations	1,150,000	590,000	104,000	18,000	32,000	100,000	306,000

Edisto Island is a barrier island approximately 4.5 miles in length and is located approximately 30 miles southwest of Charleston, South Carolina. The northeastern portion of Edisto Island is a state park, which includes camping sites and cabins, while the remainder of the island is primarily single-family residential. The Town of Edisto Beach has developed as a permanent and seasonal residential community with limited commercial development. One commercial structure and 220 residences have been affected by storm damage. It is estimated that seven structures along the 700 block could fail completely and other residential structures could incur damage from a hurricane. Opportunities exist at Edisto Island to analyze and develop a recommendation that will provide for reduction of hurricane and storm damages to the beachfront structures located within the Town of Edisto Beach. This would be realized through placement of material along the beachfront that would sustain a wider beach profile through this reach of the study area. Additionally, environmental restoration and protection opportunities exist through the entire study area, primarily for protection of the habitat that exists at Edisto Beach State Park and to provide more stable turtle nesting habitat along the entire Edisto Island shoreline. The Town of Edisto Beach is the cost-sharing sponsor and the Feasibility Cost Sharing Agreement was executed on 29 September 2006.

Fiscal Year 2011 funds are being used to continue the feasibility phase of the study. Activities will consist of plan formulation alternatives, environmental assessment and coordination, and coastal engineering and economic modeling. Fiscal Year 2012 funds will be used to continue the feasibility phase of the study. Activities will consist of optimizing alternative designs, determining the NED plan and drafting the feasibility report. The preliminary estimated cost of the feasibility phase is \$1,750,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. The estimated cost of the external peer review is \$175,000 and 100% federally funded. A summary of the study cost sharing is as follows:

Total Estimated Study Cost	\$2,025,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	1,050,000
Feasibility Phase (Non-Federal)	875,000

The reconnaissance phase was completed in September 2006. The feasibility study is scheduled for completion in February 2013.

APPROPRIATION TITLE: Investigations, Fiscal Year 2012

Division: South Atlantic

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2009 \$	Allocation FY 2009 \$	Allocation FY 2010 \$	President's Budget FY 2011 \$	Tentative Allocation FY 2012 \$	Additional to complete After FY 2012 \$
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PRECONSTRUCTION ENGINEERING AND DESIGN (PED) ACTIVITIES – (FRM)

Surf City and North Topsail Beach, NC
Wilmington District

Annual Allocations	1,125,000	0	0	0	300,000	300,000	525,000
ARRA Allocations	0	0	0	0	0	0	0
Total Allocations	1,125,000	0	0	0	300,000	300,000	525,000

The towns of Surf City and North Topsail Beach are located in the central and northern part of Topsail Island in the southeastern part of North Carolina. Topsail Island is a barrier island located about 25 miles northeast of Wilmington, NC between New Topsail Inlet and New River Inlet. From north to south, this island includes the communities of North Topsail Beach, Surf City and Topsail Beach. As a result of Hurricane Fran in 1996 and Hurricane Floyd in 1999, the damage to publicly owned properties exceeded \$5,000,000 and the total losses paid to privately owned property by FEMA was about \$32,000,000. Further, Hurricanes Bertha, also in 1996, and Fran eroded at least 25 feet of coastline leaving 66 percent of the Surf City and North Topsail Beach shoreline without its natural vegetation. This erosion, along with recent hurricanes, has either severely damaged or destroyed the primary dune system along the ocean shoreline leaving the towns vulnerable to damage from future storm events. Average damages without the proposed project are \$19,100,000 per year. The recommended plan includes constructing a sand dune at an elevation of 15 feet above National Geodetic Vertical Datum (NGVD) and a berm with a crown width of 50 feet and a top elevation of 7 feet above NGVD over approximately 10 miles of shoreline. Both sponsors, the towns of Surf City and North Topsail Beach, have expressed their support for this plan as documented in the integrated feasibility report and environmental impact statement dated December 2010. They understand and are ready to sign the Design Agreement in February 2011. PED will ultimately be cost shared at the rate for the project to be constructed but will be financed through the PED period at 25 percent non-Federal. Any adjustment that may be necessary to bring the non-Federal contribution in line with the project cost sharing will be accomplished in the first year of construction.

Total Estimated Preconstruction Engineering and Design Costs	\$1,500,000	Total Estimated Preconstruction Engineering and Design Costs	\$1,500,000
Initial Federal Share	1,125,000	Ultimate Federal Share	975,000
Initial Non-Federal Share	375,000	Ultimate Non-Federal Share	525,000

At this time, the project is not authorized for construction. Once authorized and in accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986 and 1999, the non-Federal sponsor must provide all lands, easements and rights of way, including suitable borrow and spoil disposal areas; pay 35 percent of the first costs allocated to flood damage reduction; pay 50 percent of the periodic nourishment costs; and bear all costs of operation, maintenance, repair, replacement and rehabilitation of constructed facilities. Fiscal Year 2011 funds will be used to initiate PED. Fiscal Year 2012 funds will be used to continue PED. PED is scheduled to be completed in September 2014.

CONSTRUCTION

APPROPRIATION TITLE: Construction - Shore Protection (Flood Risk Management)

PROJECT: Dade County, Florida (Continuing)

LOCATION: Dade County is on the southeast coast of Florida. The project area consists of 9.3 miles of the Atlantic shoreline of the county from Government Cut north to Bakers Haulover Inlet, 1.2 miles at Haulover Beach Park, and the section of beach along 2.5 miles north of Haulover Beach Park at Sunny Isles.

DESCRIPTION: The project provides for a protective and recreational beach with a dune for beach erosion control and hurricane protection along 9.3 miles and a protective and recreational beach along 3.7 miles. The berm width is 50 feet at elevation +9.0 feet MLW for 10.5 miles and 20 feet wide at +9.0 feet MLW for 2.5 miles.

AUTHORIZATION: Flood Control Act of 1968, Water Resources Development Act of 1974, Supplemental Appropriations Act of 1985, and Water Resources Development Act of 1986.

REMAINING BENEFIT-REMAINING COST RATIO: 15.6 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 5.4 to 1 at 3-1/4 percent.

INITIAL BENEFIT-COST RATIO: 5.1 to 1 at 3-1/4 percent (FY 1965).

BASIS OF BENEFIT-COST RATIO: Initial benefits are from the June 1965 Dade County Report at October 1964 price levels. Total benefits are from the April 1985 Dade County, North of Haulover Beach Park, Design Memorandum at October 1984 price levels.

Division: South Atlantic

District: Jacksonville

Dade County, FL

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST	STATUS (1 Jan 2011)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		190,300,000		Breakwaters and Seawalls		
Initial Construction	47,309,000			Jetty Extension	100	Aug 1976
Periodic nourishment	142,991,000			Upgrading N. Jetty at Government Cut	100	Nov 1983
Estimated Non-Federal Cost		178,200,000		Jetty Rehabilitation at Haulover Inlet	100	Nov 1986
Initial Construction	40,647,000			Beach Replenishment Initial Fill	100	Aug 1989
Cash Contributions	38,808,000			Periodic Nourishment		
Other Costs	1,839,000			Sunny Isles (Portion)	0	TBD
Periodic Nourishment		137,553,000		Dade County(Remainder)	10	TBD
Cash Contributions	137,553,000					
Other Costs	0					
Total Estimated Project Cost		368,500,000		Entire Project	40	TBD
Initial Construction	87,956,000					
Periodic Nourishment	280,544,000					
Allocations to 30 September 2008		82,840,900				
Allocation for FY 2009		0				
Allocation for FY 2010		5,000				
Recovery Act Allocation To Date		0				
President's Budget for FY 2011		11,000,000				
Allocation for FY 2011		TBD				
Allocations through FY 2011		93,845,900	49.3%			
Allocation Requested for FY 2012		15,202,000	57.3%			
Programmed Balance to Complete after FY 2012		81,252,100				
Unprogrammed Balance to Complete after FY 2012		0				

Division: South Atlantic

District: Jacksonville

Dade County, FL

PHYSICAL DATA

Jetty Extension		
Initial Beach Fill	15,597,000	Cy
Advance Nourishment	450,000	Cy
Periodic Nourishment	3,540,000	Cy/10 years

JUSTIFICATION: The Dade County shore, occupied by Miami Beach and a number of smaller communities, is highly developed and probably represents the most densely concentrated resort area in the world. The area is heavily visited by tourists throughout the year. The estimated current attendance for the project shore exceeds 15 million annually. Prior to the initial beach fill, recession of the shore caused loss of valuable beaches and property and placed seawalls and other structures under direct wave attack. At a number of locations, erosion undermined or threatened to undermine shorefront structures. Dade County lies in a zone of relatively high hurricane frequency, and many of the most intense hurricanes of record have passed over or near the area. Storm surge and waves generated in the ocean and in Biscayne Bay by past hurricanes have caused major tidal flooding in the project area. A severe hurricane crossing the area on a critical path could cause a major flood disaster. The September 1926 hurricane devastated Miami and took 100 lives. Hurricane Andrew impacted the shorefront in Dade County in August 1992. The project prevented an estimated \$20 million in damages to shorefront development, with a loss of only 2 percent of the beach fill. The beach fill loss due to Hurricane Andrew was restored under the authority of PL 84-99 during the overall renourishment of the project during FY97 and FY99. The beaches of Dade County are of prime importance as tourist attractions. It is essential to the economy of the area that the beaches be maintained and preserved. Average annual benefits are as follows:

Annual Benefits	Amount
Beach Erosion Control	3,795,000
Recreation	22,181,000
Storm Damage Prevention	1,879,000
Land Enhancement	125,000
Total	27,980,000

FISCAL YEAR 2011: Fiscal Year 2011 funds are being used to award a nourishment contract.

FISCAL YEAR 2012: The requested amount will be applied as follows:

Continue Periodic Nourishment	\$ 13,332,000
Planning, Engineering and Design	880,000
Construction management	990,000
Total	\$ 15,202,000

NON-FEDERAL COST: In accordance with the cost-sharing and financing concepts reflected in the authorizing legislation, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, and rights-of-way	1,839,000	
Pay 49.8% of the separable costs for FY 03 and beyond, allocated to recreation, including periodic nourishment, and bear all costs of operation, maintenance, repair, rehabilitation, and replacement of breakwater features.	176,361,000	
Total Non-Federal Cost	178,200,000	0

STATUS OF LOCAL COOPERATION: The Dade County Board of County Commissioners, Miami, Florida, is the local sponsor. A Local Cooperation Agreement pursuant to Section 221 of the River and Harbor and Flood Control Act of 1970 (PL 91-611) was accepted by the Secretary of the Army on 16 January 1973. An agreement for the section north of Haulover Beach Park was signed on 20 June 1986.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal (Corps) cost estimate of \$190,300,000 is a decrease of \$2,600,000 from the latest estimate (\$192,900,000) presented to Congress (FY 2011). This change includes the following item:

Item	Amount
Price level and Other Estimating Adjustments	-2,600,000
Total	-2,600,000

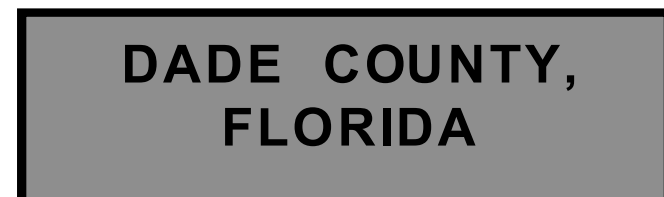
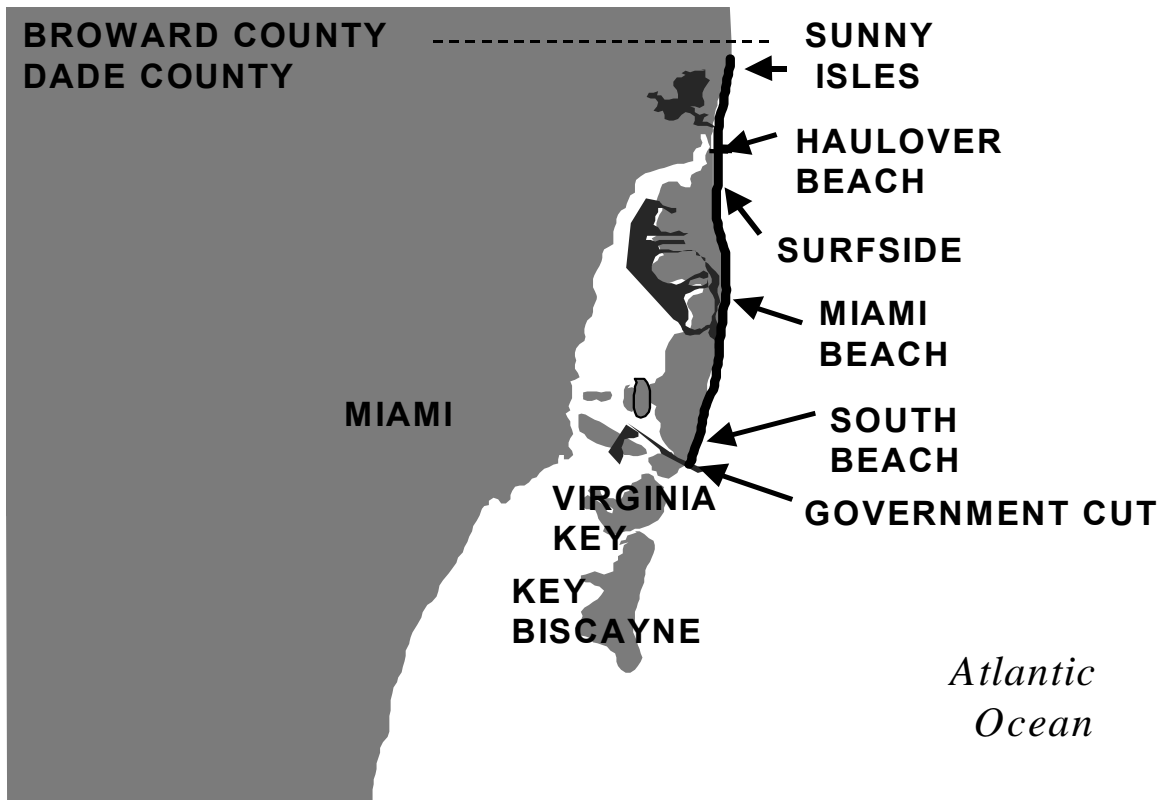
STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final EIS was filed with CEQ on 27 August 1976. The provisions of Section 404 of the Clean Water Act were met by a Section 404(b)(1) Evaluation in June 1984. A supplement to the EIS was filed with EPA on 18 March 1983. An EIS was completed for the modification of the project at Sunny Isles.

OTHER INFORMATION: Funds to initiate preconstruction planning were appropriated in FY 1973 and initial construction funds were appropriated in FY 1977. Funds to initiate construction of the Sunny Isles (North of Haulover Beach Park) segment were appropriated in FY 1985. Section 69 of the Water Resources Development Act of 1974 authorized initial construction by non-Federal interests of the 0.85-mile segment immediately south of Bakers Haulover Inlet (Bal Harbour). Local interests have accomplished the work and reimbursement was provided by funds included in the 1976 Appropriations Act. Section 501(a) of the Water Resources Development Act of 1986 authorized the extension of Federal participation in beach nourishment from 10 years to the life of the project; however, a period of 50 years was used for economic analysis of the project. Offshore sources of sand for renourishment of the project have been almost exhausted along Dade County. Section 935 of WRDA 86 and a Congressional directive from 1999 indicated that only domestic sources of sand are to be utilized for renourishment of this project, unless domestic sources are not available for environmental or economic reasons. A Letter Report was provided to address the lack of remaining offshore sand sources for the sustainability of renourishment in 2007. The ASA(CW) memo dated December 10, 2007, regarding the Letter Report, indicated a three tiered approach for; conducting the next renourishment from domestic sources, evaluating the use of non-domestic sources and conducting a regional sediment management evaluation for the southeast coast of Florida. Preparation of a regional sediment evaluation, that includes the remaining sand sources along the southeast coast of Florida and evaluation of the viability for use of non-domestic sources, is also underway.

Division: South Atlantic

District: Jacksonville

Dade County, FL



Division: South Atlantic

District: Jacksonville

Dade County, FL

APPROPRIATION TITLE: Construction - Shore Protection (Flood Risk Management)

PROJECT: Duval County, Florida (Continuing)

LOCATION: Duval County is located on the upper east coast of Florida at Jacksonville within 20 miles of the Florida-Georgia state line. The project area extends along the Atlantic Ocean shoreline for about 10 miles south from the south side of the St. Johns River to the St. Johns County line.

DESCRIPTION: The plan of improvement for the Duval County beaches provides for a 60-foot-wide berm extension seaward from the state-established Erosion Control Line. This includes restoration of the protective beach along the 10-mile shoreline and future periodic nourishment at 4-year intervals. The last renourishment was partially completed in January 2003. All work is programmed.

AUTHORIZATION: River and Harbor Act of 1965 and Water Resources Development Act of 1986.

REMAINING BENEFIT-REMAINING COST RATIO: 3.0 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 3.0 to 1 at 7 percent.

INITIAL BENEFIT-COST RATIO: 2.2 to 1 at 3-1/4 percent (FY 1976).

BASIS OF BENEFIT-COST RATIO: Benefits are from the 2005 Project Information Report.

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST	STATUS (1 Jan 2011)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		79,800,000		Beach Replenishment		
Initial Construction	6,785,000			Initial Fill	100	Oct 1980
Periodic nourishment	73,015,000			Periodic Nourishment	30	TBD
Estimated Non-Federal Cost		53,400,000				
Initial Construction	7,167,000			Entire Project	36	TBD
Cash Contributions	4,833,000					
Other Costs	2,334,000					
Periodic Nourishment	46,233,000					
Cash Contributions	46,233,000					
Other Costs	0					
Total Estimated Project Cost		133,200,000				
Initial Construction	13,952,000					
Periodic Nourishment	119,248,000					
Allocations to 30 September 2008		27,144,100				
Allocation for FY 2009		0				
Allocation for FY 2010		5,000				
Recovery Act Allocation To Date		0				
President's Budget for FY 2011		7,500,000				
Allocation for FY 2011		TBD				
Allocations through FY 2011		34,649,100	43.4%			
Allocations Requested for FY 2012		100,000	43.5%			
Programmed Balance to Complete after FY 2012		45,050,900				
Un-programmed Balance to Complete after FY 2012		0				

Division: South Atlantic

District: Jacksonville

Duval County, FL

PHYSICAL DATA

Initial Beach Fill	2,486,000 cubic yards
Periodic Nourishment for FY 1995-1996	1,240,000 cubic yards
Future Periodic Nourishment	960,000 cubic yards every 4 years

JUSTIFICATION: The majority of the project shore is a popular resort area with substantial summer influxes of seasonal residents and visitors. The consolidated City of Jacksonville developed a 450-acre full-facility park, Kathryn Abbey Hanna Park, along the 7,800 feet of ocean shore south of and adjacent to Mayport Naval Station. The park has a native plant and wildlife environment fronted by dune formations that is protected by the project. Atlantic Beach, Neptune Beach, and Jacksonville Beach are highly developed with homes, apartment houses, resort motels and condominiums, and concession facilities throughout. The current estimate of this shorefront development is \$155 million. In 1964, storm damage to the Duval oceanfront amounted to about \$4,000,000. A 1962 northeast storm caused \$2,580,000 in damages. Neptune and Jacksonville Beaches both experienced over \$1,000,000 in damages. Federal costs for temporary emergency protection and restoration of storm damage at Jacksonville and Neptune Beaches totaled \$1,076,000 in March 1963. At these two beaches and Atlantic Beach, additional emergency work costs totaled \$1,391,000 in September 1964 and \$309,000 at Atlantic Beach in October 1964. Emergency costs to State, county, cities, and private individuals during the storms were substantial. Since completion of initial construction, there have been over 12 northeasters and, in September 1979, Hurricane David caused water levels that exceeded design criteria. Two northeasters during the Fall of 1981 and the Fall of 1982 occurred during the highest peak tides of the year. These storms and the severe northeasters in September and October 1992 caused accelerated erosion and recession to the extent that renourishment was required in 1995. The authorized project has performed well and has prevented damage to shorefront development. The annual reduction of damages to development based on current shorefront development is estimated to be \$3.7 million. Average annual benefits for the project are as follows:

Annual Benefits	Amount
Storm Damage Prevention	3,670,000
Recreation Benefits	2,108,500
Total	5,778,500

FISCAL YEAR 2011: Fiscal Year 2011 funds are being used to award a nourishment contract.

FISCAL YEAR 2012: The requested amount will be applied as follows:

Post Construction Monitoring	100,000
Total	\$ 100,000

Division: South Atlantic

District: Jacksonville

Duval County, FL

NON-FEDERAL COST: In accordance with the cost-sharing concepts reflected in the authorizing legislation, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, rights-of-way, relocations, and dredged material disposal areas	2,334,000	
Pay 41.6 percent of the costs allocated to initial fill	4,833,000	
Pay 38.4 percent of the costs allocated to periodic renourishment of the project shoreline	46,233,000	
 Total Non-Federal Cost	 53,400,000	

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: By letter of 18 May 1988, the local sponsor (City of Jacksonville) expressed their interests in continuing an agreement with the Federal government to extend the beach nourishment of the project. A new Project Cooperation Agreement was executed in July 1994 to allow Federal participation in cost sharing from 10 to 50 years based upon the Section 934 Report that was approved by ASA(CW) in February 1992.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal (Corps) cost estimate of \$79,800,000 is an increase of \$300,000 from the latest estimate (\$79,500,000) presented to Congress (FY 2011). This change includes the following item:

Item	Amount
Price Level and Other Estimating Adjustments	300,000
Total	300,000

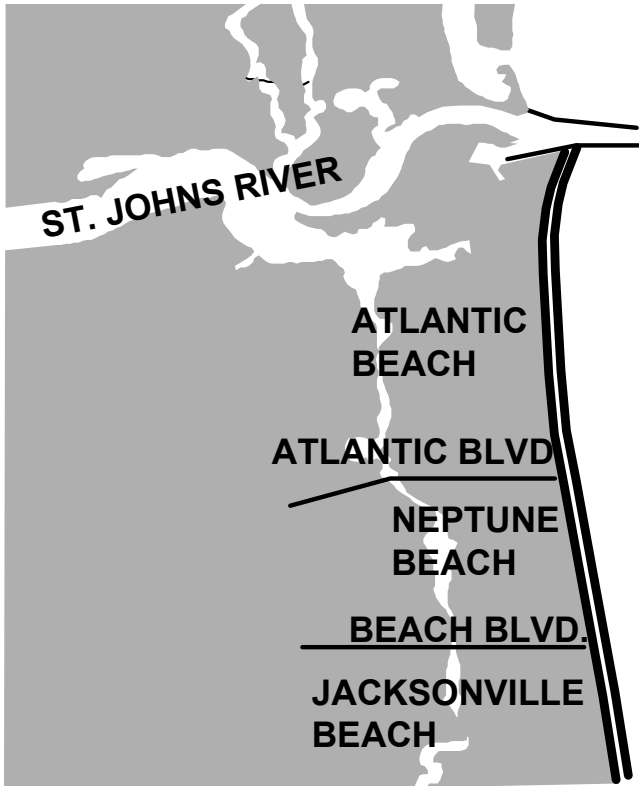
STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final EIS for the previously authorized project was filed with CEQ on 10 September 1975. Prior to the nourishment of any segment of the project, appropriate NEPA documentation will be prepared.

OTHER INFORMATION: Initial construction began in 1978 and was completed in October 1980. The first renourishment was completed in 1987. The second overall renourishment (second renourishment south segment and third renourishment north of Atlantic) was completed in November 1995.

Division: South Atlantic

District: Jacksonville

Duval County, FL



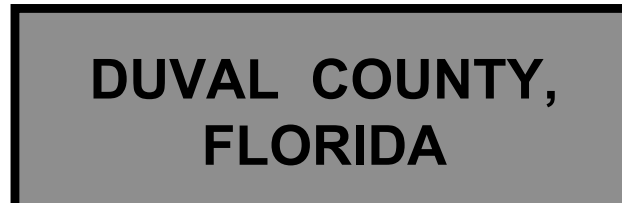
*Atlantic
Ocean*



Division: South Atlantic



District: Jacksonville



Duval County, FL

APPROPRIATION TITLE: Construction – (Replacement)

PROJECT: Herbert Hoover Dike, FL (Continuing)

LOCATION: The Herbert Hoover Dike (HHD) system encircles Lake Okeechobee entirely, except in the vicinity of Fisheating Creek on the western shore. The existing embankments total about 143 miles in length with typical crest elevations rising about 25 feet above adjacent land elevations.

DESCRIPTION: The Major Rehabilitation Report (MRR), approved in November 2000, divided the dike into 8 Reaches and included a detailed analysis of alternatives in the 1st Reach. The MRR proposed construction of a seepage/drainage berm along the landside toe of the dike for Reach 1. Following input from a variety of expert sources, the Corps convened an independent technical review panel to further evaluate the design of the proposed repairs, which were underway. After reviewing the findings of this panel, the Corps decided to fundamentally alter its plans for strengthening the HHD. The new design concept includes toe-ditch fill, cut-off wall at the center of the dike, and seepage berm. Implementation will utilize a risk reduction strategy addressing the culverts as the first order of work and measures to address seepage and piping within LD-2 and LD-9 between the cities of Port Mayaca and Belle Glade, FL. The project is currently being implemented as an entire system for risk reduction.

AUTHORIZATION: Herbert Hoover Dike is a component of the Central and Southern Florida (C&SF) Project for Flood Control and Other Purposes. The C&SF Project was authorized in the Flood Control Act of 1948, 1954, 1958, 1960, 1965 and 1968; Authorization in 1970 under Section 201 of the Flood Control Act of 1965, the Water Resources Development Acts of 1986, 1988, 1990, 1992, 1996, 2007 and the Rivers and Harbors Act of 1930.

REMAINING BENEFIT - REMAINING COST RATIO for the project as a whole: Not available.

TOTAL BENEFIT - COST RATIO for the project as a whole: Not available.

BASIS OF BENEFIT - COST RATIO: The latest economic analysis performed is in the November 2000 MRR, which estimated that the benefit-cost ratio for the project as a whole would be 0.94 to 1 at a 6 1/8 percent discount rate, using October 2000 price levels. This is the equivalent of a benefit-cost ratio of 0.96 to 1 at a 7 percent discount rate. Since that time, in response to the views of external peer reviewers and the findings of the independent technical review panel, the Corps made revisions to the project plan. The resulting plan would cost roughly three times as much as the plan proposed in the 2000 report.

These benefit-cost ratios do not, however, reflect the benefits of reduced risk of loss of life, which cannot be quantified in economic terms. The Corps has classified the Herbert Hoover Dike as a Dam Safety Action Class I (DSAC I). Structures in this class are critically near failure or extremely high risk under normal operations without intervention. In this case, there is a concern even at a relatively low pool level due to the limitations of current outlet structures. As an interim measure, the Corps has changed the operating regime for Lake Okeechobee to lower the probability of failure from seepage. However, it is also proceeding to repair the dike as quickly as is practical in order to further mitigate the risk.

Division: South Atlantic

District: Jacksonville

Herbert Hoover Dike, FL

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST	STATUS (1 Jan 2011)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	2,041,176,000		Levees (Formerly Reach 1) Culverts	35 0	Sep 2014 Apr 2017
Estimated Non-Federal Cost	32,194,000				
Cash Contributions	0		Remaining Levees	0	Unscheduled
Other Costs	32,194,000				
Total Estimated Project Cost	2,073,370,000		Entire Project	0	Unscheduled
Allocation to 30 September 2008	116,771,000				
Allocations for 2009	78,369,000				
Allocations for 2010	122,819,000				
Recovery Act Allocations to Date	0				
President's Budget for FY 2011	104,800,000				
Allocations for 2011	TBD				
Allocations through 2011	422,759,000	21%			
Allocation Requested for 2012	85,000,000	26%			
Programmed Balance to Complete after 2011	1,533,417,000				
Unprogrammed Balance to Complete after 2011	0				

Division: South Atlantic

District: Jacksonville

Herbert Hoover Dike, FL

PHYSICAL DATA

Levees - Miles

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JUSTIFICATION: The work on Reach 1 involved the construction of a cutoff wall, landside construction features such as partial seepage berms, relief wells, relief trenches and structural solutions for removing or replacing existing culverts and other penetrations through HHD. Currently, the probability of catastrophic dike failure due to piping is unacceptably high. Such an event would produce flooding, which could (depending on its location) lead to the loss of life and/or significant economic damage. The Corps is proceeding first with work in the areas of the dike where the potential risk is the greatest. Any such failure would also adversely affect the ecosystem of Lake Okeechobee (directly) and the estuaries of the Indian River Lagoon and the Caloosahatchee River (indirectly). It would also reduce the ability to store water in the lake for release in dry years for consumptive uses and to benefit the ecosystem of the Everglades.

FISCAL YEAR 2011: Fiscal Year 2011 funds are being used to award additional contracts for the removal or replacement of federal culverts within the HHD system while continuing construction and installation of cut-off wall. FY 2011 efforts include continued construction of cut-off wall, award of a contract to remove one culvert and replace up to six culverts, and the award of a pilot test on a seepage collection/filtering system. Detailed design activities ongoing include: culvert removal and replacements; and preparation of conceptual design layouts for the implementation of a seepage collection/filtering system. Major Rehabilitation Report (MRR) activities include: continuation of HHD system-wide alternatives analysis on the entire dike, loss of life risk assessment analysis for southern areas of the dike and associated field work data collection. National Environmental Policy Act (NEPA) activities include: preparation of required Environmental Assessment (EA) for the removal and replacement of the federal culverts within the HHD system will be completed using FY 2011 funds.

FISCAL YEAR 2012: The requested amount of \$85,000,000 will be applied to continue work as follows:

Continue Construction of Culverts	\$ 62,300,000
Engineering During Construction	2,000,000
Design/Field Investigation	11,200,000
HHD Systems Analysis Report/Field Investigation	4,000,000
Construction Management	5,500,000
Total	\$ 85,000,000

Division: South Atlantic

District: Jacksonville

Herbert Hoover Dike, FL

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the original, 1930's-era authorizing legislation, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, and rights of way	32,194,000	
Total Non-Federal Costs	32,194,000	

STATUS OF LOCAL COOPERATION: A Partnership Agreement (PA) is not required for the Herbert Hoover Dike Project. There are resolutions through which the sponsor, South Florida Water Management District (SFWMD), commits to items of local cooperation. This consists of Resolutions 12 (1948) and 398 (1949). The repairs to the Herbert Hoover Dike are being 100% federally funded. Any additional real estate or easements required for the repairs are the responsibility of the local sponsor.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal (Corps) cost estimate of \$2,041,176,000 is an increase of \$152,721,000 from the latest estimate (\$1,888,455,000) submitted to Congress (FY2011).

Item	Amount
Price Escalation on Construction Features	\$ 56,731,000
Updated Cost Estimate for Construction of Cut-Off Wall and Landside Rehabilitation	10,221,000
Schedule Changes	85,769,000
 Total	 \$152,721,000

COMPARISON OF FEDERAL COST ESTIMATES CONT:

The FY 2009 Federal cost estimate was based on the rough cost estimate developed for the 2000 Major Rehabilitation Report (MRR), escalated yearly. Since the 2000 MRR, additional detailed information has been compiled and developed regarding the cut-off wall and the landside rehabilitation features. In 2008 and 2009 the project schedule, activities and cost were reviewed and overhauled based on award of the 11 miles of cut-off wall, utilizing four contractors. The actual cost of construction was used as a basis to update the remaining costs associated with the project.

The land side rehabilitation features of relief wells, relief trenches and seepage berm have also been developed and refined since the 2000 MRR and reviewed by the agency technical review team. In March/April 2009 rough costs were developed both by Corps in-house and by Architectural-Engineer firms for Reach 1 for the geotechnical solutions for these land side rehabilitation features. These estimates were reviewed by the Agency Technical Review team and were extrapolated through the balance of Reaches 1, 2 and 3. In February 2010 a cost risk analysis was completed by the Walla Walla District Corps of Engineers Cost Engineering Center of expertise on initial cut-off wall and land side rehabilitation for Reaches 2 and 3. Because of the cost increases in the redesign recommended by the independent technical review panel alternative designs are also being evaluated to assess cost and feasibility.

The project schedule is based on maximum capability for reduction of risk for the entire system. The project is scheduled with the last rehabilitation construction contract in Reach 8 being awarded in FY 2021. The subsequent project estimate increased due to substantial cost information based on actual construction and more definitive land side rehabilitation cost estimates. The rehabilitation will be analyzed for risk and risk reduction and there may come a point in time where the risk is decreased to a point that rehabilitation features will either no longer be needed or reduced below the costs of rehabilitation.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The draft EIS for the project was completed December 1998. A Supplemental EIS was prepared and completed in January 2005 and the Record of Decision was signed in September 2005.

The preparation of a required Environmental Assessment (EA) for the removal and replacement of the federal culverts within the HHD system is currently underway.

OTHER INFORMATION: Funding for the major rehabilitation was first appropriated in FY 2002. All funding prior to FY 2002 was appropriated through dam safety.

A value engineering (VE) study was done on design for Reach 1 described in the 2000 MRR. The VE recommendation was a modified plan of the recommended plan in the MRR. Subsequently, a Detailed Design Report (DDR) analyzed the VE plan and determined that it permitted too much seepage flow through the section and impacted local flood control. Following input from a variety of expert sources, the Corps convened an independent technical review panel to further evaluate the design of the proposed repairs, which were underway. After reviewing the findings of this panel, the Corps fundamentally altered its design for strengthening the HHD. Preliminary analyses indicated that construction of a cut-off wall in conjunction with landside repairs would be required within a 27-mile stretch in the southwestern portion of the dike, which when complete would increase reliability of the portion of the dike at greatest risk of failure to authorized levels of protection. The most recent approved MCASES is contained in the 2000 MRR. A HHD System Analysis Report will be prepared for the area outside the first reach of the dike identified in the 2000 MRR, which will also evaluate the feasibility of alternative designs for their feasibility and potential to reduce the project cost.

Division: South Atlantic

District: Jacksonville

Herbert Hoover Dike, FL

OTHER INFORMATION CONT:

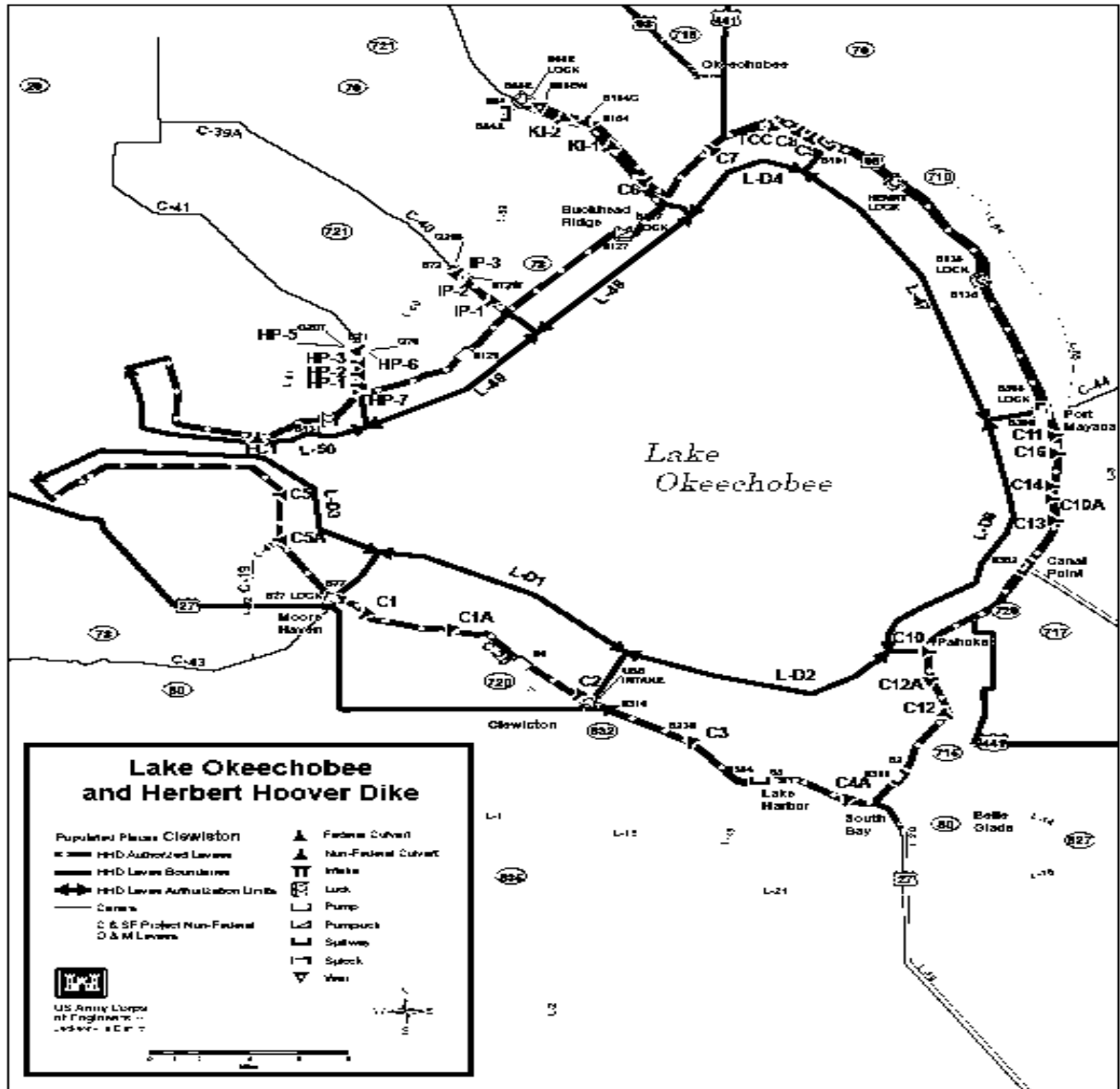
The Herbert Hoover Dike Project is a multi-purpose project authorized for flood control, water supply, and navigation. The Comprehensive Everglades Restoration Plan (CERP) assumed the dike was fully functional. A fully functional dike will support the authorized ecosystem restoration benefits of the CERP. The current effort to strengthen the dike, when completed, will allow the Corps to hold more water safely in the lake. This will enable the Corps to release excess water to the estuaries of the Indian River Lagoon and the Caloosahatchee River in a more controlled, less damaging, fashion. In the long-term, it will also enable the Corps to release more water during dry periods to benefit the ecosystem of the Everglades.

SUMMARIZED FINANCIAL DATA:

Estimated Federal Cost	2,041,176,000
Estimated Non-Federal Cost	32,194,000
Cash Contributions	0
Other Costs	32,194,000
Total Estimated Project Cost	2,073,370,000

REMAINING BENEFIT-REMAINING COST RATIO: Not available. The latest economic analysis is based on a different, less expensive design.

TOTAL BENEFIT-COST RATIO: Not available. The latest economic analysis is based on a different, less expensive design.



Division: South Atlantic

District: Jacksonville

Herbert Hoover Dike, FL

APPROPRIATION TITLE: Construction – Shore Protection (Flood Risk Management)

PROJECT: Manatee County, Florida (Continuing)

LOCATION: The project is located along the west central coast of Florida, immediately south of the entrance to Tampa Bay.

DESCRIPTION: The plan of improvement provides for the placement of fill to form a protective and recreational beach for about 4.7 miles of shore along the Gulf shore of Anna Maria Key, together with periodic nourishment of the entire 7.5 miles of shorefront as needed and justified. The project provides a minimum 75-foot berm at an elevation of 5 feet above the national geodetic vertical datum. Offshore slopes would be about 1 on 11 from the berm crest to mean low water, thence 1 on 27 to existing bottom. Initial construction was completed in March 1993. The sponsor completed an LRR and plans and specifications for the first renourishment in November 2000. The sponsor completed renourishment of the project under the authority of Section 206 of WRDA 92 in May 2002. All work is programmed.

AUTHORIZATION: Section 201 of the Flood Control Act of 1965, Section 206 of WRDA 92.

REMAINING BENEFIT-REMAINING COST RATIO: 16.4 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 13.1 to 1 at 7 percent.

INITIAL BENEFIT-COST RATIO: 2.8 to 1 at 8-5/8 percent (FY 1990).

BASIS OF BENEFIT-COST RATIO: Benefits are from the latest available evaluation included in the General Design Memorandum approved February 1991 at May 1989 price levels. Remaining benefits-cost ratio is from 2000 Manatee County, FL First Renourishment Limited Reevaluation Report w/ EA at 1998 price levels.

Division: South Atlantic

District: Jacksonville

Manatee County, FL

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST	STATUS (1 Jan 2011)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		42,100,000	Beach	Replenishment		
Initial Construction	5,178,000			Initial Fill	100	Mar 1993
Periodic Nourishment	36,922,000			Periodic Nourishments 1-5	20	TBD
Estimated Non-Federal Cost		35,100,000		Entire Project	23	TBD
Initial Construction		4,025,000				
Cash Contribution	3,978,000					
Other Costs	47,000					
Periodic Nourishment		31,075,000				
Cash Contributions	30,975,000					
Other Costs	100,000					
Total Estimated Project Cost		77,200,000				
Initial Construction	9,203,000					
Periodic Nourishment	67,997,000					
Allocations to 30 September 2008		7,280,000				
Allocation for FY 2009		0				
Allocation for FY 2010		100,000				
Recovery Act Allocations To Date		0				
President's Budget for FY 2011		100,000				
Allocation for FY 2011		TBD				
Allocations through FY 2011		7,480,000	17.8%			
Allocation Requested for FY 2012		100,000	18.0%			
Programmed Balance to Complete after FY 2012		34,520,000				
Un-programmed Balance to Complete after FY 2012		0				

Division: South Atlantic

District: Jacksonville

Manatee County, FL

JUSTIFICATION: The primary purpose of the Manatee County shore protection project is to mitigate physical damages from storms affecting the project shorefront at Anna Maria Key. The project provides protection to over \$66 million in private and commercial upland development, as well as infrastructure such as roads and utilities. Two of the evacuation routes from the island to the mainland would be protected by the project. Physical loss of land would be prevented, and the value of the land enhanced by project construction. Incidental recreation benefits would be generated by increased recreational usage of the project beach. The project increased usable nesting beach for the endangered and threatened turtle species from 5.1 to 35 acres. The project protected upland development from damage immediately following construction in March 1993 when the “storm of the century” impacted the project area. Average annual benefits are:

Annual Benefits	Amount
Storm Damage Reduction	3,938,500
Prevention of Land Loss	96,600
Recreation 321,000	
Total 4,356,100	

FISCAL YEAR 2011: Fiscal Year 2011 funds are being used for environment monitoring activities.

FISCAL YEAR 2012: The requested amount will be applied as follows:

Engineering & Design for next renourishment	100,000
Total	\$ 100,000

NON-FEDERAL COST: In accordance with the cost share and financing concepts reflected in the Water Resources Development Act of 1986, as amended, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, repair, Rehabilitation, and Replacement Costs
Provide lands, easements, rights-of-way, relocations, and dredged material disposal areas	47,000	
Pay 45.71 percent of the costs associated with the initial nourishment of the project	3,978,000	
Pay 45.71 percent of the costs associated with the periodic renourishment of the project	31,075,000	
Total Non-Federal Costs	35,100,000	

Division: South Atlantic

District: Jacksonville

Manatee County, FL

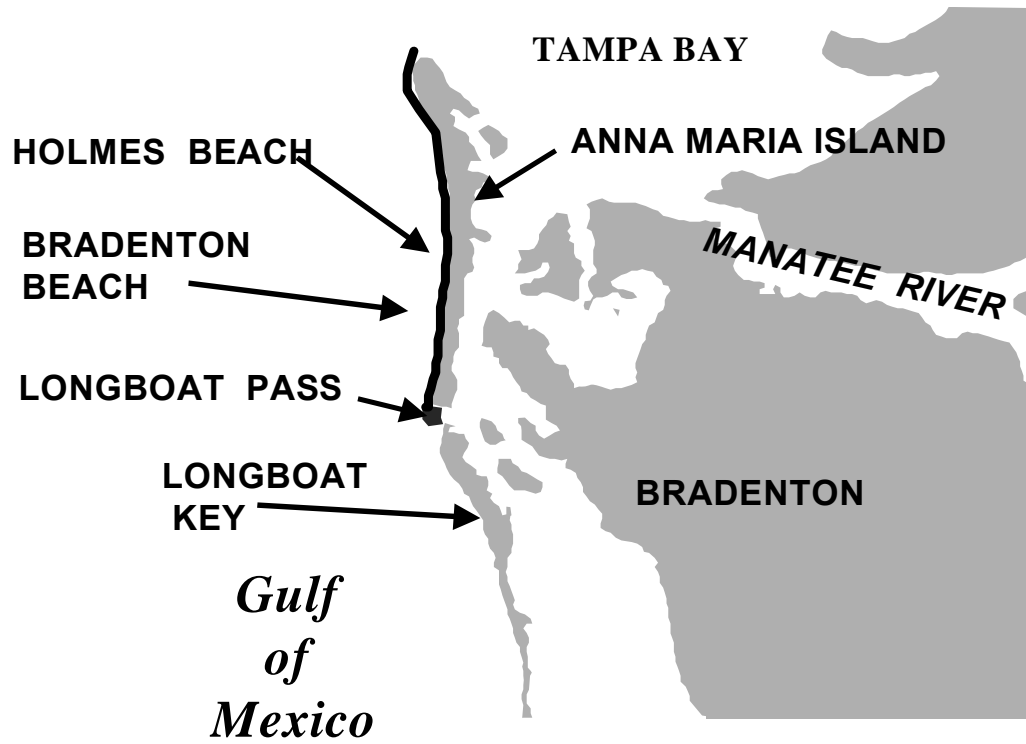
The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: The Manatee County Board of County Commissioners is the local sponsor. A Local Cooperation Agreement reflecting the cost sharing requirements of the Water Resources Development Act of 1986 was executed in August 1992. In December 1997, the ASA(CW) approved the use of Section 206 (of WRDA 1992) authority for Manatee County to conduct E&D for the first periodic renourishment. An amendment to the existing PCA to allow use of Section 206 authority was executed in September 2000.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal (Corps) cost estimate of \$42,100,000 is unchanged from the last estimate presented to Congress (FY 2011).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final EIS was prepared in August 1973 and a first supplement to the final EIS was filed with EPA in June 1979. A Final Supplement 2 to the Final Environmental Impact Statement was filed with EPA in November 1991. An EA is being prepared to accompany the LRR prepared by the sponsor for the first renourishment in 2001.

OTHER INFORMATION: The local sponsor conducted the E&D and awarded the renourishment contract for Anna Maria Island in December 2001 and completed renourishment in May 2002.



**MANATEE COUNTY,
FLORIDA**

Division: South Atlantic

District: Jacksonville

Manatee County, FL

APPROPRIATION TITLE: Construction – Shore Protection (Flood Risk Management)

PROJECT: Nassau County, Florida (Continuing)

LOCATION: Nassau County is the northernmost county on the east coast of Florida. Amelia Island forms the eastern border, stretching 13 miles south from the St. Marys River to the Nassau River.

DESCRIPTION: The recommended plan is comprised of 4.3 miles of Nassau County shoreline located between FDEP monuments R-10 through R-33. The design template berm elevation is +13.0 feet MLW and would result in a pre-project mean high water extension of 40 feet. The design slopes have changed to reflect the natural existing conditions of 1V on 15H to MLW and, thence, 1V on 25H to existing ground.

AUTHORIZATION: Water Resource Development Act of 1988.

REMAINING BENEFIT-REMAINING COST RATIO: 6.3 to 1.0 at 7 percent

TOTAL BENEFIT-COST RATIO: 3.9 to 1.0 at 7 percent

INITIAL BENEFIT-COST RATIO: 3.9 to 1.0 at 7 percent (FY 2006)

BASIS OF BENEFIT-COST RATIO: Benefit-cost ratios from 2006 Nassau County, Florida, Shore Protection Project, General Reevaluation Report at 2006 price levels.

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST	STATUS (1 Jan 2011)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		149,700,000		Beach Replenishment		
Initial Construction	15,185,000			Initial Fill	100	Sep 2007
Periodic Nourishment	134,515,000			Periodic Nourishment 1 – 9	0	TBD
Estimated Non-Federal Cost		40,200,000				
Initial Construction	4,092,000			Entire Project	10	TBD
Cash Contribution	4,037,000					
Other Costs	55,000					
Periodic Nourishment	36,108,000					
Cash Contributions	35,755,000					
Other Costs	353,000					
Total Estimated Project Cost		189,900,000				
Initial Construction	19,277,000					
Periodic Nourishment	170,623,000					
Allocations to 30 September 2008		14,610,000				
Allocation for FY 2009		0				
Allocation for FY 2010		5,000				
Recovery Act Allocation To Date		0				
President's Budget for FY 2011		350,000				
Allocation for FY 2011		TBD				
Allocations through FY 2011		14,965,000	10.0%			
Allocation Requested for FY 2012		700,000	10.5%			
Programmed Balance to Complete after FY2012		134,035,000				
Un-programmed Balance to Complete after FY 2012		0				

Division: South Atlantic

District: Jacksonville

Nassau County, FL

PHYSICAL DATA

Initial Beach Fill	2,535,000	Cubic yards
Future Periodic Nourishment	1,634,000	Cubic yards every 5 years

JUSTIFICATION: A restored beach would provide hurricane and storm damage protection for residential and commercial structures, assist in the protection and recovery of Federal or state listed threatened or endangered species, and provide additional opportunities for public use of the beach. The project includes environmental monitoring activities due to impacts from the Federal navigation project at Fernandina Harbor.

The annual storm damage prevention benefits, based on current shorefront development, are estimated to be \$3,505,000. Average annual benefits for the recommended plan are as follows:

Annual Benefits	Amount
Storm Damage Prevention	3,505,000
Recreation Benefits (not included in Economic analysis)	349,400
Total	3,854,400

FISCAL YEAR 2011: Fiscal Year 2011 funding will be used for environment monitoring activities due to impacts from the Federal navigation project.

FISCAL YEAR 2012: Fiscal Year 2012 funding will be used for environment monitoring activities due to impacts from the Federal navigation project and coordination of the PMP and initiation of plans and specifications scheduled for the construction contract scheduled for award during FY 2013. The requested amount will be applied as follows:

Environmental Monitoring	350,000
Engineering & Design for Next Nourishment	350,000
Total	\$ 700,000

Division: South Atlantic

District: Jacksonville

Nassau County, FL

NON-FEDERAL COST: The non-Federal cost-sharing reflected in the Nassau County, Florida, Shore Protection Project, General Reevaluation Report with final Environmental Assessment dated December 2006 is 24.34%.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, right-of-ways, relocations, and dredged material disposal sites	408,000	
Pay 24.34 percent of costs allocated to initial fill	4,037,000	
Pay 24.34 percent of costs allocated to periodic renourishment of the project shoreline	35,755,000	
Total Non-Federal Costs	40,200,000	

STATUS OF LOCAL COOPERATION: A Project Cooperation Agreement was executed 28 September 2007.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal (Corps) cost estimate of \$149,700,000 reflects a decrease of \$100,000 from the latest estimate (\$149,800,000) presented to Congress (FY 2011).

Item	Amount
Price Level and Other Estimating Adjustments	-100,000
Total	-100,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An EA and a FONSI were prepared and included in the General Reevaluation Report dated March 17, 1999.



Division: South Atlantic

District: Jacksonville

Nassau County, FL

APPROPRIATION TITLE: Construction - Local Protection (Flood Risk Management)

PROJECT: Portugues and Bucana Rivers, Puerto Rico (Continuing)

LOCATION: The project is located in the vicinity of Ponce, Puerto Rico, on the south coast.

DESCRIPTION: The Standard Project Flood (SPF) flood protection project involves construction of 9.1 miles of channel improvements, two multi-purpose dams with uncontrolled emergency spillways, a dependable water supply for the Ponce area, and recreational facilities on the lakes and channels. The Cerrillos Dam is located on the Cerrillos (Upper Bucana) River 9.5 miles above its mouth. The Cerrillos Dam is 323 feet high and its reservoir will provide 47,900 acre-feet of flood control and water supply storage. The estimated water supply yield of Cerrillos is 22 m.g.d. The Portugués Dam flood control structure will be located on the Portugués River 8.3 miles above its mouth. The Portugués Roller Compacted Concrete (RCC) Dam will be 219 feet high. The final reservoir will provide a total storage of 12,325 acre-feet. The Portugues Dam will be awarded as one contract with five phases of construction. Phase I will include mobilization, clearing and grubbing, quarry overburden excavation, and powerline relocation. Phase II will include foundation excavation, aggregate production and dental concrete. Phase III will include aggregate production, placement of one half of the Roller Compacted Concrete (RCC). Phase IV will include final RCC placement, spillway and intake structure. Phase V will include the valve house, access road and all mechanical and electrical items for valve house.

AUTHORIZATION: Flood Control Act of 1970 and Water Resources Development Act of 1986.

REMAINING BENEFIT - REMAINING COST RATIO: 10.6 to 1 at 7 percent.

TOTAL BENEFIT - COST RATIO: 2.5 to 1 at 7 percent.

INITIAL BENEFIT - COST RATIO: 2.0 to 1 at 5-5/8 percent (FY1974).

BASIS OF BENEFIT - COST RATIO: Benefits are from the July 1973 Design Memorandum Phase 1, Plan Formulation and Site Selection Report at July 1973 prices levels except for Portugues Dam where benefits are from the Post Authorization change report dated April 2004.

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST	STATUS (1 Jan 2011)	PERCENT COMP	PHYSICAL COMPLETION SCHEDULE
Estimated Total Appropriation Requirement	\$ 619,600,000		Channels and Canals		
Future Non-Federal Reimbursement	213,974,000		Lower Channels	100	Aug 1978
			Upper Bucana Channel	100	Jun 1983
			Upper Portugues Channel	100	Jun 1994
Estimated Federal Cost (Ultimate)	402,626,000		Bucana River Debris Basin	100	Jun 1987
			Portugues Debris Basin	100	Mar 1987
Estimated Non-Federal Cost	390,974,000		Dams		
Cash Contributions	72,447,000		Cerrillos	100	Sep 1994
Other Costs	104,553,000		Portugues (Flood Control)	50	TBD
Reimbursements	213,974,000				
Water Supply	213,974,000		Recreation		
			Channels	60	TBD
Total Estimated Project Cost	\$ 796,600,000		Cerrillos	100	Sep 2008
			Portuguese	0	TBD
Allocations to 30 September 2008	\$ 451,682,000				
Allocation for FY 2009	40,987,000		Entire Project	94	TBD
Allocation for FY 2010	39,680,000				
Recovery Act Allocation To Date	0				
President's Budget for FY 2011	39,539,000				
Allocation for FY 2011	TBD				
Allocations through FY 2011	571,888,000	92.3%			
Allocation Requested for FY 2012	45,000,000	99.6%			
Programmed Balance to Complete After FY 2012	2,712,000				
Unprogrammed Balance to Complete After FY 2012	0				

Dam	PHYSICAL DATA	
	Portugues	Cerrillos
Type	Roller Compacted Concrete	Earth and rock-fill
Height	220 feet	323 feet
Crest Length	1,317 feet	1,555 feet
Spillway Type	Ungated concrete 150 feet wide	Ungated rock cut 400 feet wide
Reservoir Capacity (Acre-Feet)		
Flood Control	9,484	17,065
Water Supply	12,858	25,200
Sediment	2,841	5,635
Total	25,183	47,900
Portugues River Channel Enlargement		2.1 miles
Bucana River Channel Enlargement		5.7 miles
Diversion Channel Connecting Portugues River to the Lower Bucana River		1.3 miles

JUSTIFICATION: The completed components of the project (lower channels of Cerrillos Dam) provided over 100 year flood event level of protection to the eastern urban side of the city but less than 25 years to the city's main residential, commercial, public and industrial areas. Only with completion of the Portugues Dam will these areas receive the SPF level of protection as designed and authorized. There are over 15,000 families and several billion dollars worth of property subject to flooding because the dam, which was designed as an integrated system, has not been completed thereby exacerbating flood risk for some areas. This component is an integral part of the entire Portugues and Bucana project, and without it, the lower channels will not perform effectively. This project, in addition to preventing damages to property, is effective in reducing a high risk to life for the populations in the project area. That risk must be considered in evaluating the project justification in addition to economic analyses. Risk is created by both hydrologic factors (flash flooding and thus short warning time) and cultural factors (few available routes of egress from the flood plain.) Average annual benefits for the total project are as follows:

Annual Benefits	Amount
Flood Control	43,387,000
Water Supply	13,968,000
Recreation	2,418,000
Area Redevelopment	1,116,000
Total	60,889,000

FISCAL YEAR 2011: Fiscal Year 2011 funds are being used to continue construction of the roller compacted concrete dam and associated engineering during construction and construction management.

FISCAL YEAR 2012: The requested amount will be applied as follows:

Continue Portuges Dam Construction Contract	\$38,696,000
Engineering During Construction	2,162,000
Construction Management	4,142,000
Total	\$45,000,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Flood Control Act of 1970 and the Water Resources Act of 1986, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, and Replacement Costs
Provide lands, easements, and rights-of-way.	\$83,165,000	
Modify or relocate buildings, utilities, roads, bridges, and other facilities, where necessary in the construction of the project.	21,388,000	
Pay additional cash required to bring the total Non-Federal share of the flood control costs to 25 percent and bear all costs of operation, maintenance, and replacement of flood control facilities.	56,705,000	249,900
Pay one-half of the separable costs allocated to recreation and bear all costs of operation, maintenance, and replacement of recreation facilities.	15,742,000	258,300
Reimbursement for water supply on Cerrillos Dam	213,974,000	
Total Non-Federal Costs	\$390,974,000	508,200

STATUS OF LOCAL COOPERATION: The Commonwealth of Puerto Rico Department of Natural and Environmental Resources is the local sponsor. The following contract agreements are required pursuant to Section 221 of the River and Harbor and Flood Control Act of 1970 and the Water Resources Development Act of 1986:

Contract	Actual or Anticipated Execution Date
Section 221 – Cerrillos Reservoir Channels	15 Mar 1982 22 Jul 1974
Water Supply – Cerrillos Reservoir	15 Mar 1982
Recreation – Cerrillos Reservoir Channels	15 Mar 1982 24 Jun 1987
Project Cooperation Agreement – Portugues Reservoir	9 Aug 1993

Portugues Dam is a roller compacted concrete dam. The dam is designed as a multi-purpose dam to be constructed in two phases. The Commonwealth of Puerto Rico has requested that the dam be constructed as soon as possible for flood control and recreation, but to defer the water supply feature to a later date. By letter dated May 2003, the Commonwealth restated their commitment to the full and complete multi-purpose Portugues Dam, and agreed to pay the additional costs required for the phased construction.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal (Corps) cost estimates of \$619,600,000 is an increase of \$3,000,000 from the previous estimate (\$616,600,000) last presented to Congress (FY 2011). This change includes the following item:

Item	Amount
Price level and Other Estimating Adjustments	3,000,000
Total	3,000,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final EIS was filed with CEQ on 25 February 1974. A Supplemental EIS for the Portugues Dam was submitted in November 1992.

OTHER INFORMATION: Funds to initiate preconstruction planning were appropriated in Fiscal Year 1972. Funds to initiate construction were appropriated in Fiscal Year 1975.

SUMMARIZED FINANCIAL DATA FOR PROGRAMMED SEPARABLE ELEMENTS

Channels and Canals

Estimated Federal Cost		\$116,901,000
Estimated Non-Federal Cost		62,112,000
Cash Contribution	3,731,000	
Other Costs	58,381,000	
Total Estimated Project Cost		\$179,013,000

REMAINING BENEFIT - COST RATIO: Not applicable because construction is substantially complete.

Cerrillos Dam

Estimated Total Appropriation Requirement		\$232,799,000
Future Non-Federal Reimbursement (Water Supply)		213,974,000
Estimated Federal Cost Ultimate		18,825,000
Estimated Non-Federal Cost Ultimate		247,562,000
Cash Contributions	9,708,000	
Other Costs	23,880,000	
Reimbursement:		
Water Supply	213,974,000	
Total Estimated Project Cost		\$266,387,000

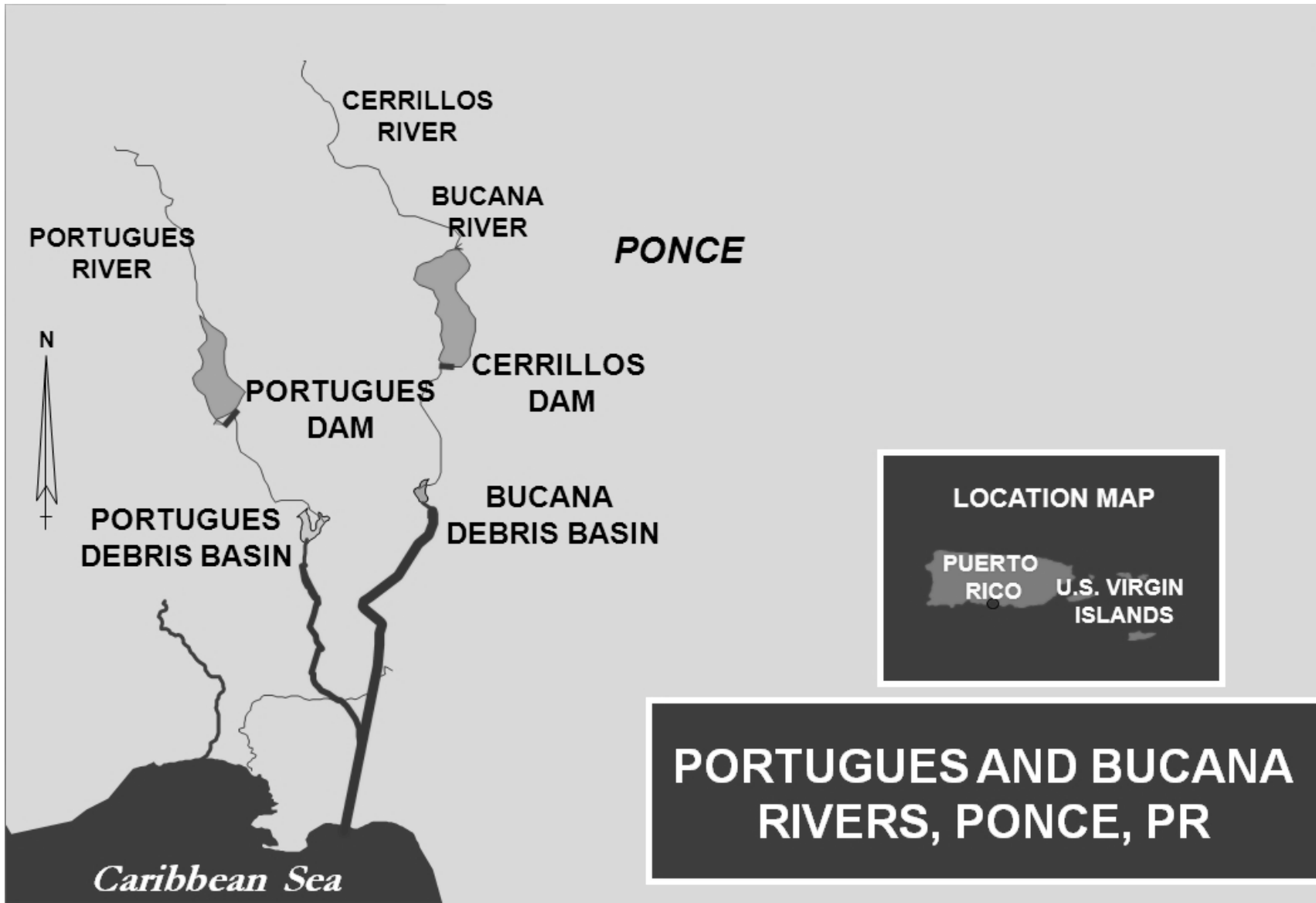
REMAINING BENEFIT-REMAINING COST RATIO: Not applicable because construction is substantially complete.

Portugues Dam

Estimated Federal Cost		\$269,900,000
Estimated Non-Federal Cost		81,300,000
Cash Contribution	59,449,000	
Other Costs	21,851,000	
Total Estimated Project Cost		\$351,200,000

REMAINING BENEFIT-REMAINING COST RATIO: 10.6 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 2.5 to 1 at 7 percent.



APPROPRIATION TITLE: Construction - Local Protection Project (Flood Risk Management)

PROJECT: Rio Puerto Nuevo, Puerto Rico (Continuing)

LOCATION: The Rio Puerto Nuevo drainage basin is located within the San Juan Metropolitan Area along the northern coast of Puerto Rico. The basin joins the southeast side of San Juan Harbor and extends south and up into the foothills of the central mountains of Puerto Rico. The Rio Piedras, Rio Puerto Nuevo, Quebrada Margarita, Quebrada Josefina, Quebrada Dona Ana, Quebrada Buena Vista, and Quebrada Guaracanal traverse the basin. The Río Puerto Nuevo Basin drains 24 square miles, 75 percent of which is highly developed with a population of 250,000 persons.

DESCRIPTION: The plan of improvement protects against the 100-year flood by the construction in the Puerto Nuevo River and its tributaries of 1.7 miles of earth lined channel, 9.5 miles of concrete lined channels (of which 5.1 miles are high velocity) and two debris basins. The plan will also require the construction of five new bridges, the replacement of 17 bridges, and the modification of eight existing bridges.

AUTHORIZATION: Water Resources Development Act of 1986.

REMAINING BENEFIT - REMAINING COST RATIO: 5.8 to 1 at 7 percent.

TOTAL BENEFIT - COST RATIO: 2.3 to 1 at 7 percent.

INITIAL BENEFIT - COST RATIO: 4.5 to 1 at 8 percent (FY1994).

BASIS OF BENEFIT - COST RATIO: Benefits are from the economic analyses performed for the revised General Design Memorandum dated June 1991 at October 1989 price levels.

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST	STATUS (1 Jan 2011)	PCT CMP L	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	414,900,000		Relocations	40	TBD
			Roads, Railroads, Bridges	48	TBD
Estimated Non-Federal Cost	151,700,000		Channels and Canals	63	TBD
Cash Contribution	63,534,000		Recreation	0	TBD
Other Costs	88,166,000				
		Entire	Project	59	TBD
Total Estimated Project Costs	566,600,000				
Allocations to 30 September 2008	184,641,000				
Allocation for FY 2009	11,171,000				
Allocation for FY 2010	4,239,000				
Recovery Act Allocation To Date	55,335,156				
President's Budget for FY 2011	12,000,000				
Allocation for FY 2011	TBD				
Allocations through FY 2011	267,386,155	64.4%			
Allocation Requested for FY 2012	7,000,000	66.1%			
Programmed Balance to Complete after FY 2012	140,513,844				
Un-programmed Balance to Complete after FY 2012	0				

PHYSICAL DATA	
Relocations - Bridges (Replacement)	17
Relocations - Bridges (Modification)	8
Relocations - Bridges (Construction)	5
Canals - Miles	11.2
Debris Basins	2
Stilling Areas	2

Division: South Atlantic

District: Jacksonville

Rio Puerto Nuevo, PR

JUSTIFICATION: The Rio Puerto Nuevo flows thru the middle of the San Juan Metropolitan area. The intense development in the basin has altered the natural discharge patterns, significantly increased the runoff rates and restricted the flows in the floodplain. In very short time, discharges reach over 30,000 cfs with stages of over 4 ft and velocities approaching 12 – 15 ft per second. There are over 250,000 people living in the 25 square mile drainage basin and over a quarter of a million people commute every day to work, study and visit the area. The area is 100% developed. About 125,000 persons are directly or indirectly affected by the 100-year flood. Property subject to flooding includes over 8,000 housing structures, several hospitals, police stations, dozens of schools and higher education colleges, San Juan Harbor ports facilities, electric power plants, wastewater treatment plant, main highways and bridges, the financial district and several regional shopping centers valued at over \$10 billion. Overflow of Rio Puerto Nuevo, even from very small floods resulting from frequent rainfalls of 2 inches or more in a few hours, bring the San Juan area to a stand still situation for hours several times per year. This results in millions of dollars of damages. San Juan is always part of Presidential Disaster Declarations for Puerto Rico associated with floods. There have been 8 of these during the last 20 years. Recently, Tropical Storm Jeanne, in 2004, resulted in FEMA expending over \$350 million in damage relief over the island. Average annual inundation damage in the Rio Puerto Nuevo area is estimated at over \$75 million. Over 89% of these damages will be reduced by the proposed flood control measures. This project, in addition to preventing damages to property, is effective in reducing a high risk to life for the populations in the project area. That risk must be considered in evaluating the project justification in addition to economic analyses. Risk is created by both hydrologic factors (deep and fast flood waters; critical infrastructure; possible bridge failure) and cultural factors (large population). Average annual benefits are as follows:

Annual Benefits	Amount
Flood Control	66,750,000
Total	66,750,000

FISCAL YEAR 2011: Fiscal Year 2011 funds are being used to initiate the Bechara Middle Section contract, continue the De Diego Bridge contract and complete the Bechara Channel contract, engineering during construction and construction management activities for the three construction contracts.

FISCAL YEAR 2012: The requested amount will be applied as follows:

Continue de Diego Bridge contract	\$ 2,067,000
Continue Bechara Middle Section	3,543,000
Planning, Engineering, and Design	460,000
Supervision and Administration	930,000
Total \$	7,000,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the authorizing legislation, the non-Federal sponsor must comply with the requirements listed below for programmed work.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, right-of-way, and dredged material disposal areas.	35,020,000	0
Modify or relocate buildings, utilities, roads, bridges (except railroad bridges), and other facilities, where necessary in the construction of the project.	53,146,000	0
Pay one-half of the separable costs allocated to recreation and bear all costs of operation, maintenance, and replacement of recreation facilities.	424,000	0
Pay 12.37 percent of the first costs allocated to flood control, and bear all cost of operation, maintenance, repair, rehabilitation, and replacement of flood control structures.	63,110,000	0
Total Non-Federal Costs	151,700,000	0

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: The Commonwealth of Puerto Rico Department of Natural and Environmental Resources is the local sponsor. A Project Cooperation Agreement for the project was executed in March 1994.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal (Corps) cost estimate of \$414,900,000 reflects an increase of \$42,500,000 from the latest estimate (\$372,400,000) presented to Congress (FY 2011). This change includes the following items:

Item	Amount
Price Escalation on Construction Features	\$ 4,000,000
Additional Roads, Railroads, and Bridges	6,770,000
Additional Channels and Canals	27,991,000
Additional Engineering and Design	1,431,000
Additional Construction Management	2,308,000
Total \$	42,500,000

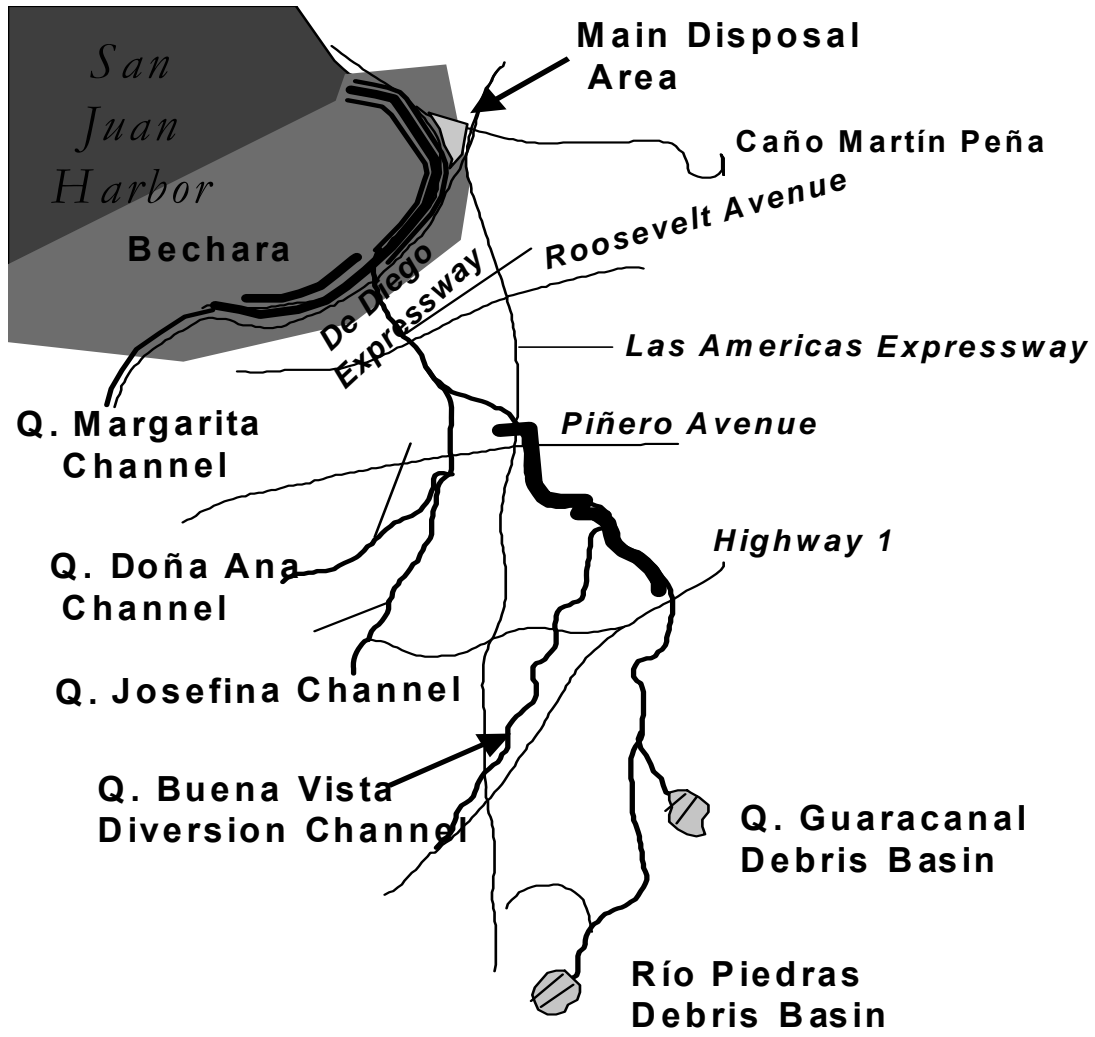
STATUS OF ENVIRONMENTAL IMPACT STATEMENT: Environmental Impact Statement for the project was filed on 6 December 1985. The Finding of No Significant Impact (FONSI) was approved in July 1992.

OTHER INFORMATION: Funds to initiate preconstruction, engineering and design were appropriated in Fiscal Year 1987. Funds to initiate construction were appropriated in Fiscal Year 1994.






Division: South Atlantic

District: Jacksonville


Rio Puerto Nuevo, PR



LEGEND

-  MAIN DISPOSAL AREA
-  CONCRETE CHANNELS
-  EARTH CHANNEL
-  VERTICAL WALLS
-  RECREATION FEATURE
-  MITIGATION AREA
-  LEVEE

N



**RIO PUERTO NUEVO
PUERTO RICO**

APPROPRIATION TITLE: Construction - Flood Risk Management

PROJECT: Roanoke River Upper Basin, Virginia, Headwaters Area (Continuing)

LOCATION: The project is located on the Roanoke River in the City of Roanoke, Virginia.

DESCRIPTION: The project includes about 6.2 miles of channel widening along the 10 miles of river through the city of Roanoke, Virginia. Channel widening will be accomplished with the construction of a benched channel above the elevation of the average stream flow. Other flood risk management features include flood proofing at two locations, training walls to prevent floodwater intrusion into low areas along the river, and a flood warning system. Recreation facilities consist of a 9.5-mile recreation trail along the project reach and access and parking areas.

AUTHORIZATION: Water Resources Development Act of 1986, Energy and Water Development Appropriations Act of 1990 and Energy and Water Development Appropriations Act of 2004.

REMAINING BENEFIT - REMAINING COST RATIO: 2.2 to 1 at 7 percent.

TOTAL BENEFIT - COST RATIO: 1.6 to 1 at 7 percent.

INITIAL BENEFIT - COST RATIO: 1.1 to 1 at 8-7/8 percent (FY 1990).

BASIS OF BENEFIT - COST RATIO: Benefits are from the General Design Memorandum approved in January 1990 at 1988 price levels.

Division: South Atlantic

District: Wilmington

Roanoke River Upper Basin, VA, Headwaters Area

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST	STATUS (1 Jan 2011)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		\$48,300,000	Entire Project	87	Sep 2014
Estimated Non-Federal Cost		\$24,200,000			
Cash Contributions	12,852,000				
Other Costs	11,348,000				
 Total Estimated Project Cost		 \$72,500,000			
 Allocations to 30 September 2008		 \$38,224,000			
Allocation for FY 2009		1,029,000			
Allocation for FY 2010		1,016,000			
Recovery Act Allocation to Date		914,000			
President's Budget for FY 2011		1,075,000			
Allocation for FY 2011		TBD			
Allocations through FY 2011		42,258,000	87		
Allocation Requested for 2012		1,075,000	90		
Programmed Balance to Complete after FY 2012		4,967,000			
Unprogrammed Balance to Complete after FY 2012		0			

PHYSICAL DATA

Project Features:

Channel Excavation 27,000 linear feet
Training Wall 6,300 linear feet
Paved Recreation Trail 50,160 linear feet
Parking/Access Areas 3 each
Riprap 28,000 tons

Relocations:

Utility 3,880 linear feet
Roads 2,000 linear feet
Overhead Line 6,350 linear feet
Buildings 13 each

Division: South Atlantic

District: Wilmington

Roanoke River Upper Basin, VA, Headwaters Area

PHYSICAL DATA - Continued

Land Acquisition (acres):	
Total Rights of Way Requirement	195
Flood Control Rights of Way	185
Disposal Areas (Temporary)	40
Recreation Rights of Way (Separable)	20
Right of Way Underwater	110

JUSTIFICATION: The project provides improvements for flood risk management and recreation. Most of the property that would receive flood damage reduction serve industrial and commercial uses with a value of \$680,000,000. The average annual damages in the project area are estimated at \$5,777,000 at October 1988 price levels and 1988 level of development over the next 50 years if no flood risk management facilities were provided. The project would reduce these damages by \$2,374,000. The maximum flood of record, November 1985, caused damages estimated at \$112,424,000 under 1985 conditions of development and price levels. Damages at 1988 levels of development and October 1988 price levels would be \$119,997,000. Floodplain development is not promoted by the project. Return on investments by local businesses is adversely affected by the flooding problem. Industrial and commercial property owners have to use their resources to repair and attempt flood proofing that could be used for expansion and modernization. In this respect, return on investment is suppressed. The project has a beneficial effect on a variety of businesses and increases return on investment throughout the flood plain. Average annual benefits are as follows:

Annual Benefits	Amount
Flood Damage Reduction	\$3,403,000
Recreation	1,230,000
Total	\$4,633,000

FISCAL YEAR 2011: The allocated amount of \$1,075,000 is being used to continue monitoring of endangered species, planning, engineering and design and construction management of flood risk management (FRM) and recreational features awarded in FY 2010.

FISCAL YEAR 2012: The requested amount of \$1,075,000 will be applied as follows with construction management continuing of flood risk management (FRM) and recreational features awarded in FY 2010:

Continue Monitoring of Endangered Species	\$ 350,000
Planning, Engineering and Design	180,000
Construction Management	545,000
Total	\$1,075,000

Division: South Atlantic

District: Wilmington

Roanoke River Upper Basin, VA, Headwaters Area

NON-FEDERAL COSTS: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below:

Requirements of local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide all lands, easements, and rights of way including suitable spoil disposal areas	\$ 6,206,000	
Modify or relocate buildings, utilities, roads and other facilities except railroad bridges, where necessary for construction of the project.	5,142,000	
Pay 25 percent of the cost of the flood warning system (partially offset by a credit for lands, easements, rights of way, and relocations).	10,000	
Pay 5 percent of the total cost allocated to flood damage reduction in cash in addition to all lands, easements, rights of way and relocations, and bear all costs of operation, maintenance, and replacement of flood damage reduction facilities.	5,664,000	\$101,000
Pay one-half of the separable cost allocated to recreation (partially offset by a credit for land, easements, rights of way and relocations) and bear all costs of operation, maintenance and replacement of recreation facilities	6,811,000	9,000
Pay 25 percent of the cost of the non-structural flood proofing (partially offset by a credit for lands, easements, rights of way and relocations).	367,000	
Total Non-Federal Costs	\$24,200,000	\$110,000

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

Division: South Atlantic

District: Wilmington

Roanoke River Upper Basin, VA, Headwaters Area

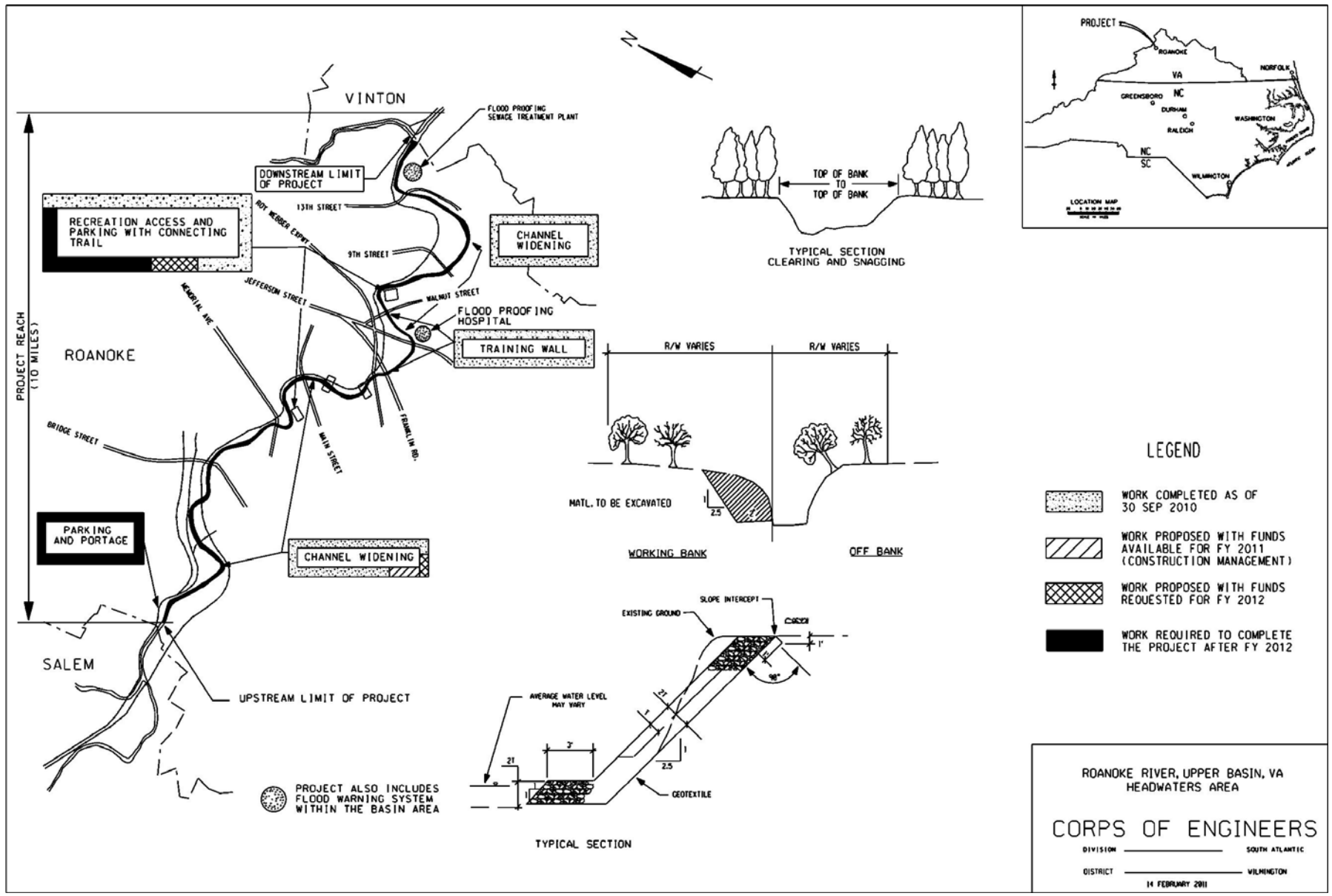
STATUS OF LOCAL COOPERATION: The City of Roanoke is the project sponsor. On 11 April 1989, the voters of the city of Roanoke approved the sale of \$7.5 million worth of bonds to pay Roanoke's required cash contribution, acquire lands that are not currently owned and pay for relocation of bridges and utilities. The Local Cooperation Agreement was executed on 25 June 1990. A supplement to the Local Cooperation Agreement, executed in January 1993, addressed the reimbursement for the flood proofing of the hospital. Design and construction of the project is now underway, which was deferred for eight years due to concerns the sponsor had over assuming liability for potential hazardous, toxic, and radioactive waste issues that might arise during project construction. The city in conjunction with the Corps of Engineers, Environmental Protection Agency and the Virginia Department of Environmental Quality conducted an extensive investigation and review of the project right of way to alleviate these concerns. Hazardous material was found at two sites. The landowner has cleaned these sites. Soil contamination was found at 14 other sites. A project action plan for the screening and disposal of this material has been prepared and reviewed by the sponsor and the Virginia Department of Environmental Quality.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$48,300,000 is an increase of \$1,600,000 from the latest estimate (\$46,700,000) presented to Congress (FY 2011).

Item	Amount
Price Escalation on Construction Features	\$ 870,000
Post Contract Award and Other Estimating Adjustments (including contingency adjustments)	730,000
Total	\$1,600,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final environmental impact statement was filed with the Environmental Protection Agency in February 1985. A Finding of No Significant Impact for design changes was signed on 30 June 1989.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1986 and funds to initiate construction were appropriated in FY 1990. The project authorization was last modified by the Energy and Water Development Appropriations Act of 2004 to increase the total estimated project cost to \$61,700,000 (October 2004 price levels). The Roanoke Logperch, which is located in the project area, was listed as an endangered species effective 18 September 1989 and is being monitored during project construction. Reimbursement for the Federal share of the flood proofing of Roanoke Hospital, as authorized by Section 102(cc) of the Water Resources Development Act of 1990, in the amount of \$501,000, was completed in February 1993.



Division: South Atlantic

District: Wilmington

Roanoke River Upper Basin, VA, Headwaters Area

APPROPRIATION TITLE: Construction – Shore Protection (Flood Risk Management)

PROJECT: St. Johns County, Florida (Continuing)

LOCATION: St. Johns County is located about 100 miles south of the Florida/Georgia border. The beach erosion control project itself is located at the City of St. Augustine Beach. The project area lies along a 2.5-mile stretch of shoreline, beginning approximately 14,500 feet south of the St. Augustine Inlet.

DESCRIPTION: The project as authorized provides for initial restoration of a protective beach to a width of 60 feet. Since the time of its authorization in 1986, the St. Johns County Beach Erosion Control Project shoreline has continued to deteriorate. At the north project limits, a revetment along Anastasia State Park has been flanked and is currently underwater during the majority of the tidal cycle. The city of St. Augustine Beach has found it necessary to construct a return wall along approximately 800 feet of shoreline fronting its government offices to relieve flooding due to overtopping during storm events. There is essentially no dry beach fronting the rock and rubble revetments along the majority of the project shoreline. Along the south portion of the project area, flanking of the revetment has been accompanied by near vertical scarp of the shoreline which has receded landward to within approximately 30 feet of some of the upland development. The project as designed would mitigate for impacts resulting from the Federal navigation project at St. Augustine Inlet and provide storm damage prevention benefits to the upland development.

AUTHORIZATION: Water Resources Development Act of 1986, Section 501(A), and 1999.

REMAINING BENEFIT-REMAINING COST RATIO: 3.5 to 1 at 7 percent

TOTAL BENEFIT-COST RATIO: 1.9 to 1 at 7 percent

INITIAL BENEFIT-COST RATIO: 1.9 to 1 at 7 percent

BASIS OF BENEFIT-COST RATIO: Benefits are from the March 1998 St. Johns County, Florida, Shore Protection Project General Reevaluation Report with Final EA approved 18 November 1998.

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST	STATUS (1 Jan 2011)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		137,300,000		Beach Replenishment		
Initial Construction	17,271,000			Initial Fill	100	Dec 2003
Periodic Nourishment	120,029,000			Periodic Nourishment	15	TBD
Estimated Non-Federal Cost		33,300,000		Entire Project	27	TBD
Initial Construction	4,184,000					
Periodic Nourishment	29,116,000					
Total Estimated Project Cost		170,600,000				
Initial Construction	21,455,000					
Periodic Nourishment	149,145,000					
Allocations to 30 September 2008		23,941,500				
Allocation for FY 2009		7,000,000				
Allocation for FY 2010		339,000				
Recovery Act Allocations To Date		0				
President's Budget for FY 2011		350,000				
Allocation for FY 2011		TBD				
Allocations through FY 2011		31,630,500	23.0%			
Allocation Requested for FY 2012		350,000	23.3%			
Programmed Balance to Complete after FY 2012		105,319,500				
Un-programmed Balance to Complete after FY 2012		0				

Division: South Atlantic

District: Jacksonville

St. Johns County, FL

JUSTIFICATION: The project, as identified in the General Reevaluation Report (GRR), provides total annual reduction of damages to development of \$4,585,000. Incidental recreation benefits amount to \$216,000. The annual cost is \$2,552,000. The benefit-to-cost ratio is 1.9 to 1.0. Also, the City of St. Augustine Beach allocated \$300,000 for the repair of the existing seawall fronting city-owned property. Highway A1A traverses the project area and is designated as a hurricane evacuation route. Past northeasters have caused considerable flooding and damage to the road, rendering it impassible. A portion of the highway at the north end of the study area was relocated landward due to the severity of the erosion problems. In addition, the construction and subsequent maintenance of the navigation works at St. Augustine Harbor by the Federal government have altered the littoral processes in the vicinity of the inlet. As a result, erosion of the 2.5-mile project area was doubled. Congress, in recognition of the need to mitigate the erosion attributed to the Federal navigation works, authorized increased Federal cost sharing in the shore protection project. Cost sharing for this project is 80.5 percent Federal and 19.5 percent non-Federal. Average annual benefits for the NED plan identified in the GRR are as follows:

Annual Benefits	Amount
Storm Damage Prevention	4,585,000
Recreation Benefits	216,000
Total	4,801,000

FISCAL YEAR 2011: Fiscal Year 2011 funds are being used for environment monitoring activities due to impacts from the Federal navigation project.

FISCAL YEAR 2012: The requested amount will be applied as follows:

Environmental Monitoring	350,000
Total	\$ 350,000

NON-FEDERAL COST: In accordance with the cost-sharing financing concepts reflected in the General Reevaluation Report with Environmental Assessment for the St. Johns County, Florida Shore Protection Project dated March 1998, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Pay 19.5 percent of the costs allocated to initial fill	4,184,000	0
Pay 19.5 percent of the separable costs allocated to recreation, including periodic nourishment, and bear all costs of operation, maintenance, repair, rehabilitation, and replacement of breakwater features.	29,116,000	0
Total Non-Federal Costs	33,300,000	0

Division: South Atlantic

District: Jacksonville

St. Johns County, FL

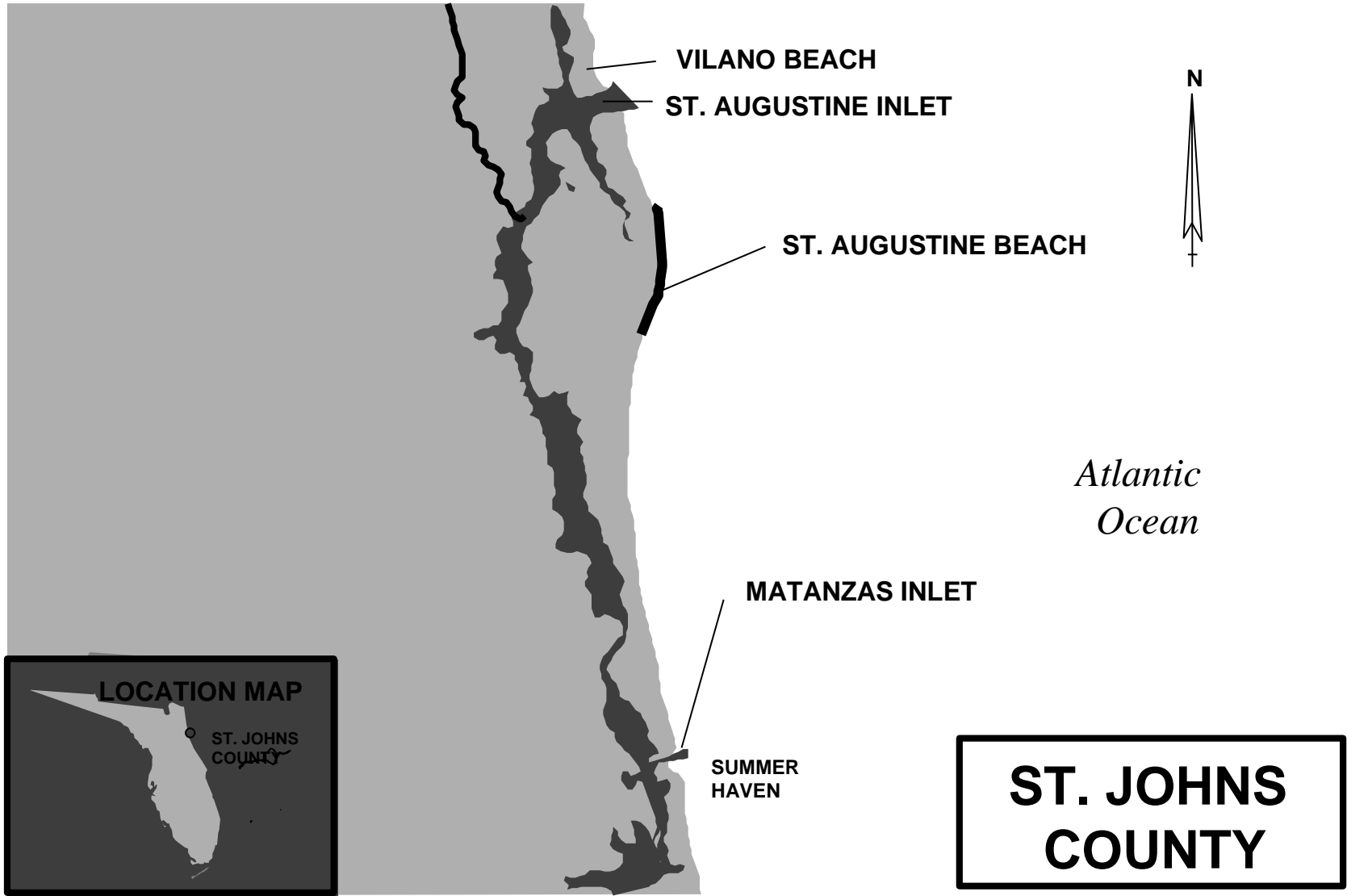
STATUS OF LOCAL COOPERATION: A Project Cooperation Agreement was executed 24 August 2000 between the St. Johns County Board of Commissioners and the Federal Government.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$137,300,000 is a decrease of \$600,000 from the latest estimate (\$137,900,000) submitted to Congress (FY 2011). This decrease includes the following:

Item	Amount
Price Level and Other Estimating Adjustments	-600,000
Total	-600,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT (EIS): A final EIS was prepared and included in the Feasibility Report for the St. Johns County Beach Erosion Control Project, which was subsequently authorized in the Water Resource Development Act of 1986. An Environmental Assessment and a FONSI (Finding-of-No-Significant-Impact) is included in the GRR approved by ASA (CW), 15 December 1998.

OTHER INFORMATION: Initial Construction, General funding was provided in FY 1995. Congress appropriated funding in Fiscal Year 1994 to prepare an economic update of the project. A favorable Economic Update Report for the St. Johns County, Florida Beach Erosion Control Project was approved 24 March 1995. Following the Economic Update, a General Reevaluation Report (GRR) was prepared in March 1998 and approved by HQUSACE 18 November 1998 and by ASA (CW) 15 December 1998.



Division: South Atlantic

District: Jacksonville

St. Johns County, FL

14 February 2011

SAD - 62

NAVIGATION

INVESTIGATIONS

APPROPRIATION TITLE: Investigations, Fiscal Year 2012

Division: South Atlantic

Study	Total Estimated Federal Cost	Allocation Prior to FY 2009	Allocation FY 2009	Allocation FY 2010	President's Budget FY 2011	Tentative Allocation FY 2012	Additional to Complete After FY 2012
	\$	\$	\$	\$	\$	\$	\$
Lake Worth Inlet, FL Annual Allocations	1,454,000	240,000	191,000	139,900	340,000	293,000	250,100
Jacksonville District ARRA Allocations	0	0	0	0	0	0	0
Total Allocations	1,454,000	240,000	191,000	139,900	340,000	293,000	250,100

The project is located in Palm Beach County on the lower east coast of Florida. Palm Beach Harbor provides an entrance channel 35 feet deep, 400 feet wide, and 0.8 miles long, merging with an inner channel 33 feet deep, 300 feet wide, and 0.3 miles long, then flaring into a turning basin with a 1,200 foot turning diameter, and jetties on the north and south sides of the inlet. Length of project is about 1.6 miles. The U.S. Coast Guard completed a study in 1998 recommending widening the interior channel. The feasibility study is investigating the deepening and widening the Federal project at Palm Beach Harbor. The local sponsor is the Port of Palm Beach.

Fiscal Year 2011 funds are being used to continue the feasibility phase of the study including engineering ship simulation studies and hydrodynamic modeling efforts, plan formulation, economic analyses of the Port, and NEPA coordination efforts. The funds requested for Fiscal Year 2012 will be used to continue the feasibility phase of the study. The estimated cost of the feasibility phase is \$2,700,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal sponsor. Up to 100% of the non-Federal share may be in-kind services. The estimated cost of the external peer review was added to the feasibility phase for \$250,000, which is 100 percent Federal funding. Sponsor has contributed \$428,000 to date. A summary of study cost sharing follows:

Total Estimated Study Cost	\$2,554,000
Reconnaissance Phase (Federal)	104,000
Feasibility Phase (Federal)	1,350,000
Feasibility Phase (Non-Federal)	1,100,000

The reconnaissance study was completed in February 2001. Lack of funding and interest by the Sponsor delayed the execution of the FCSA. The Feasibility Phase of the study was initiated July 2007. Initial NEPA Scoping meeting held January 2008. Economic, Environmental, and Engineering efforts are all underway. The feasibility phase could be completed in FY 2014 contingent upon funding.

APPROPRIATION TITLE: Investigations, Fiscal Year 2012

Division: South Atlantic

Study		Total Estimated Federal Cost	Allocation Prior to FY 2009	Allocation FY 2009	Allocation FY 2010	President's Budget FY 2011	Tentative Allocation FY 2012	Additional to Complete After FY 2012
		\$	\$	\$	\$	\$	\$	\$
Mile Point, FL	Annual Allocations	1,549,000	897,000	167,000	90,000	0	50,000	345,000
Jacksonville District	ARRA Allocations	144,832	0	144,832	0	0	0	0
	Total Allocations	1,693,832	897,000	311,832	90,000	0	50,000	345,000

Mile Point is located on the north bank of the St. Johns River in Duval County. The shoreline in the Mile Point area has experienced severe erosion, including a number of sinkholes, within the last few years. These sinkholes have engulfed hundreds of feet of property. Local interests have documented these occurrences and maintain that Corps of Engineers dredging of the federal navigation channel at Jacksonville Harbor has resulted in this erosion problem. Non-Federal efforts to stabilize the banks have proven to be useless. Regular and continued loss of significant amounts of property in the area warrants investigation of the cause of the shoreline and bank erosion. The Study would also address high velocities in the area, which restrict deep draft ship traffic. The study was authorized by Resolution adopted March 24, 1998 by the Committee on Transportation and Infrastructure of the United States House of Representatives. The sponsor for the study is Jacksonville Harbor Port Authority and understands the requirements for study cost sharing. A Feasibility Cost Sharing Agreement was executed on 12 March 2003.

This study is not included in the FY 2011 Presidential budget. The funds requested for Fiscal Year 2012 will be used to continue the feasibility phase of the study. The estimated cost of the feasibility phase is \$2,973,632 which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Up to 100% of the non-Federal share may be in-kind services. The estimated cost of the external peer review was added to the feasibility phase for \$175,632, which is 100 percent Federal funding. A summary of study cost sharing is as follows:

Total Estimated Study Cost	\$3,092,832
Reconnaissance Phase (Federal)	119,200
Feasibility Phase (Federal)	1,574,632
Feasibility Phase (Non-Federal)	1,399,000

The reconnaissance phase was completed in March 2003. The feasibility phase could be completed in FY 2013 contingent upon funding.

APPROPRIATION TITLE: Investigations, Fiscal Year 2012

Division: South Atlantic

Study		Total Estimated Federal Cost \$	Allocation Prior to FY 2009 \$	Allocation FY 2009 \$	Allocation FY 2010 \$	President's Budget FY 2011 \$	Tentative Allocation FY 2012 \$	Additional to Complete After FY 2012 \$
Savannah Harbor Expansion	Annual Allocations	16,845,500	5,941,500	1,275,000	3,029,000	600,000	600,000	5,400,000
Savannah District	ARRA Allocations	1,364,970	0	1,094,994	269,976	0	0	0
	Total Allocations	*18,210,470	5,941,500	2,369,994	3,298,976	600,000	600,000	5,400,000

* Includes \$5,751,980 in Construction funds (\$4,387,010 Regular and \$1,364,970 ARRA)

PRECONSTRUCTION ENGINEERING AND DESIGN (PED) ACTIVITIES – (NAV)

The Savannah Harbor area includes the lower 21.3 miles of the Savannah River, which is the principal boundary between the states of Georgia and South Carolina. The City of Savannah is located 15 miles from the river mouth. Savannah Harbor has been the fastest growing US container port since 1995, with an average annual growth rate (1995-2006) of 12.5%. The Harbor's Garden City Terminal is the second largest container port on the US East Coast by container volume, and the fourth largest in the nation. Savannah's share of twenty-foot equivalent units (TEUs) among the four largest US East Coast ports has grown from 13.1% in 1995 to 19.1% in 2005. Between 1987 and 2007, total TEU volume increased by more than seven fold. Loaded import TEU volume increased by more than 830% and export volume by 580%. According to the Georgia Ports Authority, over 82% of ships currently calling upon the Savannah Harbor are constrained in some way by the project's current depth.

The non-Federal interest, Georgia Ports Authority (GPA), conducted the initial Tier I feasibility study under the authority of Section 203 of the Water Resources Development Act of 1986 (WRDA 86) and was responsible for funding the associated study costs. The Feasibility Report was submitted to the Secretary of the Army in August 1998. The project was initially estimated to cost \$230,174,000 (1999 price levels), with an estimated Federal cost of \$145,160,000 and an estimated non-Federal cost of \$85,014,000. The work includes deepening the harbor channel from -42 feet to as deep as -48 feet. The average annual benefits at the time of authorization amounted to \$35.2M, all for commercial navigation. The benefit-cost ratio was calculated at 3.0 to 1 at 7-1/8 percent based on the economic analysis dated August 1998. Updated economic data, which include the benefits of an expanded Panama Canal, and updated cost estimates have been completed in July 2010 and are currently undergoing Agency Technical Reviews and Independent External Peer Reviews. The sponsor, Georgia Department of Transportation (GDOT), is aware of project cost sharing requirements. Upon completion of construction, credit may be given to the local sponsor for the Federal share of the PED cost. Costs for the General Reevaluation Report (GRR) and Tier II Environmental Impact Statement (EIS) have increased as a result of the additional work required to develop an improved economic analysis procedure for deep draft navigation projects with extensive benefits being derived from containerized cargo and cooperating agency approval. Additional hydrodynamic modeling, mitigation alternative analyses and required agency coordination have also increased the cost of report preparation.

Savannah Harbor Expansion
 Savannah District
 (continued)

Total Estimated Preconstruction		Total Estimated Preconstruction	
Engineering and Design Costs	\$41,000,000	Engineering and Design Costs	\$41,000,000
Initial Federal Share	\$18,210,470	Ultimate Federal Share	\$30,750,000
Initial Non-Federal Share	\$22,789,530	Ultimate Non-Federal Share	\$10,250,000

The project was conditionally authorized in WRDA 99, with final approval contingent upon completion of a positive Chief's Report by the end of CY 1999. The Chief's Report gave approval to the project, with construction contingent upon the approval of a GRR and Tier II EIS by the EPA, the Department of the Interior, the Department of Commerce and the US Army Corps of Engineers. Fiscal Year 2011 funds will be used to continue coordination of the GRR and the Tier II EIS to include public, peer and cooperating agency reviews and comment resolution of the draft and final reports. The final Tier II EIS and GRR are scheduled for completion of a Record of Decision in early Fiscal Year 2012. Fiscal Year 2012 funds will be used to develop and coordinate the Project Partnership Agreement and initiate the first sets of plans and specifications.

APPROPRIATION TITLE: Investigations, Fiscal Year 2012

Division: South Atlantic

Study		Total Estimated Federal Cost	Allocation Prior to FY 2009	Allocation FY 2009	Allocation FY 2010	President's Budget FY 2011	Tentative Allocation FY 2012	Additional to Complete After FY 2012
		\$	\$	\$	\$	\$	\$	\$
Tybee Island Channel	Annual Allocations	1,676,900	260,000	239,000	163,000	200,000	200,000	614,900
Impacts	ARRA Allocations	0	0	0	0	0	0	0
Savannah District	Total Allocations	1,676,900	260,000	239,000	163,000	200,000	200,000	614,900

Tybee Island is a 3.5-mile long barrier island, located 18 miles east of Savannah at the mouth of the Savannah River on the Atlantic Ocean. The mostly developed island is bordered on the north by the South Channel of the Savannah River, on the east by the Atlantic Ocean, and on the south and west by the Back River and other tidal creeks. Tybee Island has an average width of 0.5 miles and the ground elevation varies from 10 to 18 feet above mean low water and slopes westward to the salt marshes. Two potential project purposes have been identified: (1) Determine if the Savannah Harbor Federal Navigation Project is adversely impacting the shores of Tybee Island, Georgia and evaluate alternatives to mitigate for any adverse affects to Tybee Island's shelf and shoreline resulting from the Savannah Harbor Federal Navigation Project, and (2) Determine if the existing Tybee Island Shoreline Protection Project should be modified to include shore protection for the north end of Tybee Island from the North Terminal Groin to the mouth of Lazaretto Creek. The City of Tybee Island, Georgia is the non-Federal sponsor and they understand the requirements for cost sharing in the feasibility phase. The Feasibility Cost Share Agreement (FCSA) was signed on 11 January 2007 for preparation of the Initial Channel Impact Report subsequently published by the Engineer Research and Design Center (ERDC) in April 2008. The Report documented the impacts to Tybee's shoreline and shelf from the Federal Navigation Channel. The feasibility cost share agreement will be amended to reflect \$3.1M based on the scope of work and schedule developed with the non-Federal sponsor.

FY 2011 funds will be used to identify and evaluate mitigation alternatives for the Savannah Harbor Federal navigation channel's impact on Tybee's shelf and shoreline. The funds requested for FY 2012 will be used to continue the engineering and environmental analyses of the identified mitigation alternatives and prepare a draft decision document. The estimated cost of the feasibility phase is \$3,046,201 which is to be shared 50 percent Federal and 50 percent non-Federal. The estimated cost of the external peer review is included in the feasibility phase at \$200,000 and is 100% federally funded..

Total Estimated Study Cost	\$3,100,000
Reconnaissance Phase (Federal)	53,799
Feasibility Phase (Federal)	1,623,101
Feasibility Phase (Non-Federal)	1,423,100

The reconnaissance phase was completed in January 2007 with the execution of the Feasibility Cost Share Agreement. The scheduled completion for feasibility study is August 2014.

CONSTRUCTION

APPROPRIATION TITLE: Construction - Shore Protection (Flood Risk Management)

PROJECT: Brevard County Shore Protection Project (Continuing)

LOCATION: Brevard County is located on the east coast of Florida at the approximate midpoint of the peninsula. The project area is comprised of the 24 miles of Brevard County Atlantic ocean shoreline.

DESCRIPTION: The plan of improvement for the Brevard County beaches consists of restoration of 9.4 miles of shoreline for the north reach and 3.4 miles for the south reach. The north reach would extend from the south jetty at Canaveral Harbor to the northern limit of Patrick Air Force Base (PAFB), and the south reach would extend from FDEP monument R-119 to the Spessard Holland Park. This section was originally 10.5 miles long, but 7.1 miles were excluded because of nearshore hardgrounds. Also, 4.5 miles of PAFB shoreline has been excluded upon their request.

The design berm elevation is +10.0 feet (ft) mean low water (MLW) extending from the shoreward intersection of the existing profile seaward to the location of the pre-project mean high water (MHW) shoreline. At the location of the MHW shoreline, the design template slopes 1 vertical (V) to 15 horizontal (H) seaward to the location of MLW thence 1 V to 50 H out to the intersection with the existing profile.

AUTHORIZATION: Water Resources Development Act of 1996.

REMAINING BENEFIT-REMAINING COST RATIO: 1.9 to 1.0 at 7 percent

TOTAL BENEFIT-COST RATIO: 1.2 to 1.0 at 7 percent

INITIAL BENEFIT-COST RATIO: 1.9 to 1.0 at 7 5/8 percent (FY 1996)

BASIS OF BENEFIT-COST RATIO: Benefits are from the economic analysis performed for the September 1996 Final Feasibility Report and Environmental Impact Statement, updated at October 1996 price levels.

Division: South Atlantic

District: Jacksonville

Brevard County, FL

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST	STATUS (1 Jan 2011)	PCT Cmpl	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		105,400,000	Beach	Replenishment		
Initial Construction	23,796,000			Initial Fill	100	May 2003
Periodic Nourishment	81,604,000			Periodic Nourishment	14	TBD
Estimated Non-Federal Cost		72,900,000		Entire Project	25	TBD
Initial Construction	15,974,000					
Cash Contribution	15,950,000					
Other Costs	24,000					
Periodic Nourishment	56,926,000					
Cash Contributions	56,925,000					
Other Costs	1,000					
Total Estimated Project Cost		178,300,000				
Initial Construction	39,770,000					
Periodic Nourishment	138,530,000					
Allocations to 30 September 2008		28,257,355				
Allocation for FY 2009		478,000				
Allocation for FY 2010		521,000				
Recovery Act Allocation To Date		0				
President's Budget for FY 2011		350,000				
Allocation for FY 2011		TBD				
Allocations through FY 2011		29,606,355	28.1%			
Allocation Requested for FY 2012		350,000	28.4%			
Programmed Balance to Complete after FY 2012		75,443,645				
Un-programmed Balance to Complete after FY 2012		0				

Division: South Atlantic

District: Jacksonville

Brevard County, FL

PHYSICAL DATA

Initial Beach Fill	4,145,000 cubic yards
Future Periodic Nourishment	1,117,000 cubic yards every 6 years

JUSTIFICATION: The primary purpose of the Brevard County Shore Protection Project would be reduction of storm damage to upland development. The project for the north reach would provide protection to over \$457,000,000 in private and commercial upland development, as well as infrastructure such as roads and utilities. It is estimated that \$3,132,000 annual storm damage prevention benefits exist in the north reach. This value includes the cost of damage to upland development, coastal armor, backfill, and the value of land lost. Annual incidental recreation benefits of \$984,000 are also claimed for the north reach. The average annual equivalent cost for the north reach is \$2,576,000. The project for the south reach would provide protection to approximately \$77,000,000 in private and commercial upland development, as well as infrastructure such as roads and utilities. Annual storm damage prevention benefits of \$3,179,000 and annual incidental recreation benefits of \$122,000 are claimed for the 3.4-mile south reach. The average annual equivalent cost of the south reach is \$1,823,000.

Annual Benefits	Amount
North Reach:	
Storm Damage Prevention	3,132,000
Recreation Benefits	984,000
South Reach:	
Storm Damage Prevention	3,179,000
Recreation Benefits	122,000
Total	7,417,000

FISCAL YEAR 2011: Fiscal Year 2011 funds are being used for environment monitoring activities due to impacts from the Federal navigation project.

FISCAL YEAR 2012: The requested amount will be applied as follows:

Environmental Monitoring	350,000
Total	\$ 350,000

Division: South Atlantic

District: Jacksonville

Brevard County, FL

NON-FEDERAL COST: In accordance with the cost-sharing and financing concepts reflected in the authorizing legislation, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, right-of-ways, and relocations	25,000	
Pay 37.9 percent of costs allocated to initial fill North Reach	9,271,000	
Pay 43.7 percent of costs allocated to initial fill South Reach	6,679,000	
Pay 37.9% of all the North Reach separable costs for FY04 and beyond allocated to recreation, including periodic nourishment, and bear all costs of operation, maintenance, repair, rehabilitation, and replacement of breakwater features.		
Pay 43.7% of all the South Reach separable costs for FY04 and beyond allocated to recreation, including periodic nourishment, and bear all costs of operation, maintenance, repair, rehabilitation, and replacement of breakwater features.	23,704,000	
		33,221,000
Total	72,900,000	

STATUS OF LOCAL COOPERATION: The Brevard County Board of County Commissioners is the local sponsor. A PCA amendment will be executed during FY 2011 to revise the local cooperation requirements in accordance with changed cost sharing requirements for periodic nourishment due to the impacts from the Federal navigation project.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal (Corps) cost estimate of \$105,400,000 reflects an increase of \$4,500,000 from the latest estimate (\$100,900,000) presented to Congress (FY 2011).

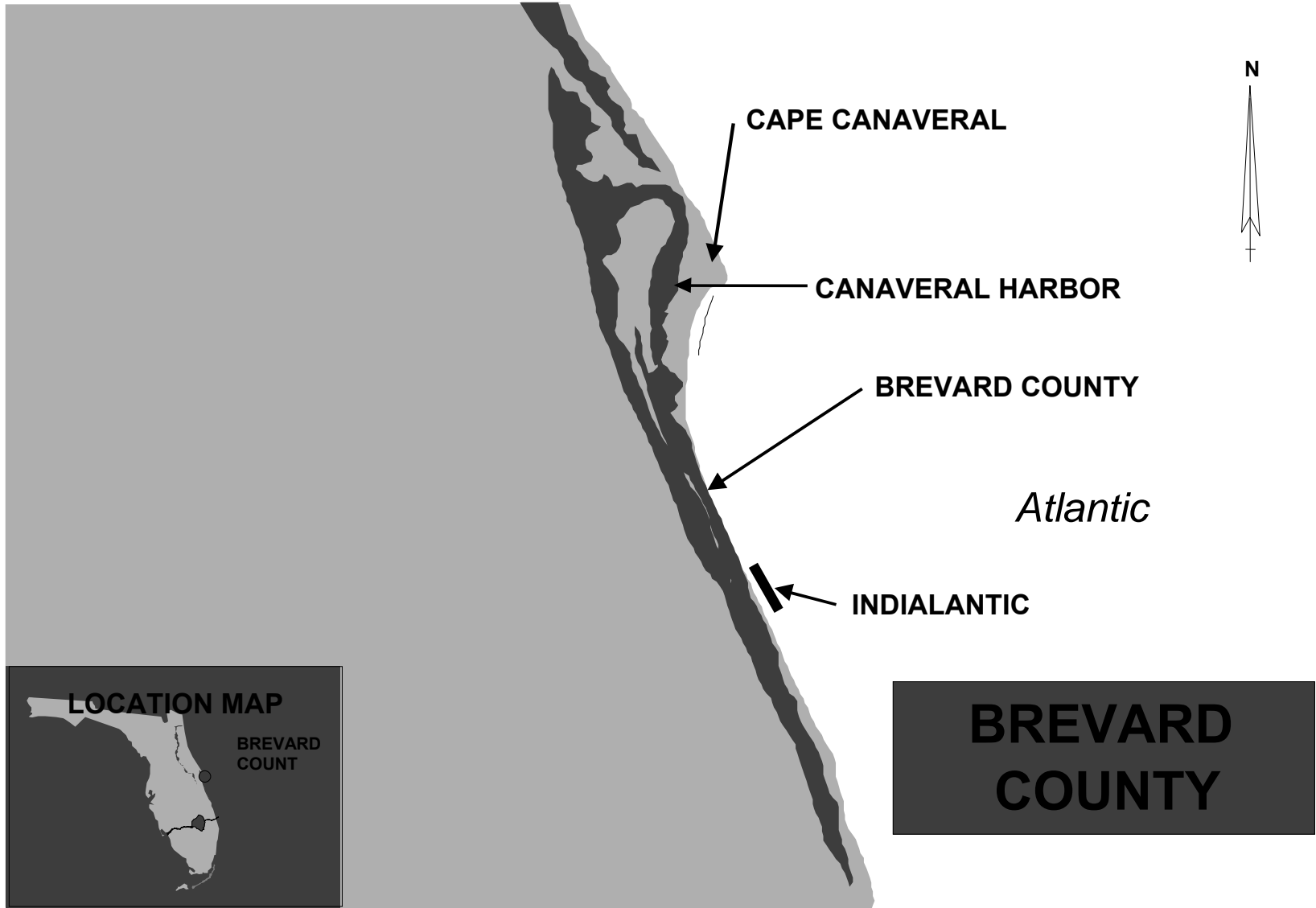
Item	Amount
Price Level and Other Estimating Adjustments	4,500,000
Total	4,500,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Final EIS was filed with the feasibility report on September 1996. Approximately 32 acres of nearshore rock outcrops composed of lithified coquina limestone and scattered patches of sabellariid worm rock exist along the northern two thirds of the south reach. The project plan for the south reach has been modified to avoid impacts to the hardgrounds.

Division: South Atlantic

District: Jacksonville

Brevard County, FL



Division: South Atlantic

District: Jacksonville

Brevard County, FL

14 February 2011

SAD - 75

APPROPRIATION TITLE: Construction - Shore Protection (Flood Risk Management)

PROJECT: Ft. Pierce Beach, Florida (Continuing)

LOCATION: Ft. Pierce Beach is located on Hutchinson Island in St. Lucie County on the east coast of Florida. Ft. Pierce Beach is about 120 miles north of Miami and about 225 miles south of Jacksonville. The authorized project extends south beginning at the south jetty of the entrance to the Ft. Pierce Harbor Federal navigation project for a distance of 1.3 miles to include Surfside Park at its southern limit.

DESCRIPTION: Restoration and periodic nourishment of the 1.3 miles of shoreline for the Fort Pierce Beach Shore Protection Project (Ft. Pierce, Florida) was authorized as a Federal project in 1965. Under the original authority, a Mean High Water (MHW) extension of 50 feet was recommended with a berm elevation of +10 feet Mean Low Water (MLW) chosen to tie in with the existing berm elevation. Initial construction of the project occurred in 1971 with the placement of 718,000 cubic yards of material. First renourishment of the project was in 1980 with 346,000 cubic yards. Second renourishment was completed May 1999. In addition, a GRR was prepared that recommends extending the 1.3-mile project an additional 1.0-mile south.

AUTHORIZATION: River and Harbor Act of 1965, as amended by Section 102 of the River and Harbor Act of 1968. Beach Erosion Control Study for St. Lucie County (Fort Pierce Beach), Florida was authorized by the River and Harbor Act of 1965 in accordance with the Recommendations of the Chief of Engineers in House Document No. 84, 89th Congress. The project authorization was modified by Section 102 of the 1968 River and Harbor Act (PL 90-483) to provide for construction of the project and periodic nourishment for 10 years by the Secretary of the Army. Although Federal participation was initially limited to 10 years, it was extended to 15 years by the Assistant Secretary of the Army for Civil Works (ASA(CW)) in October 1978 under the authority of Section 156 of Public Law 94-587. Federal participation expired in 1985. A Section 934 report was approved by ASA(CW) June 1995, extending Federal participation an additional 35 years. The Water Resources Development Act (WRDA) 1996 authorized extension of Federal participation an additional 35 years. A Project Cooperation Agreement was executed with the sponsor 3 September 1998, extending Federal participation to the year 2020. WRDA 1996 also authorized preparation of a General Reevaluation Report (GRR) to evaluate the feasibility of extending the 1.3-mile project an additional mile south. WRDA 1999 authorized the 1.0-mile extension described in the GRR.

REMAINING BENEFIT-REMAINING COST RATIO: 4.21 to 1 at 7 percent

TOTAL BENEFIT-COST RATIO: 1.9 to 1 at 7-1/8 percent

INITIAL BENEFIT-COST RATIO: 1.9 to 1 at 7-1/8 percent

BASIS OF BENEFIT-COST RATIO: Benefit-to-cost ratios are from the Fort Pierce, Florida Shore Protection Project, St. Lucie County, Florida, General Reevaluation Report with Environmental Assessment dated September 1998. Remaining Benefit-Cost Ratio is from 2007 Fort Pierce SPP Limited Reevaluation Report at 2006 price levels.

Division: South Atlantic

District: Jacksonville

Ft. Pierce Beach, Florida

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST	STATUS (1 Jan 2011)	PCT CM PL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		36,800,000		Beach Replenishment		
Initial Construction	1,677,000			Initial Fill	100	Apr-71
Periodic Nourishment	35,123,000			1 st – 6 th Renourishment	100	Jun-07
Estimated Non-Federal Cost		20,400,000		Initial Fill Addl (1.0-mile)	100	May-03
Initial Construction	2,024,000			7 th Renourishment (2.3-mile)	0	TBD
Cash Contribution	2,024,000			8 th Renourishment (2.3-mile)	0	TBD
Other Costs	0			9 th Renourishment (2.3-mile)	0	TBD
Periodic Nourishment	18,376,000			10 th Renourishment (2.3-mile)	0	TBD
Cash Contributions	18,191,000			11 th Renourishment (2.3-mile)	0	TBD
Other Costs	185,000			12 th Renourishment (2.3-mile)	0	TBD
Total Estimated Project Cost		57,200,000		Entire Project	54	TBD
Initial Construction	3,701,000					
Periodic Nourishment	53,499,000					
Allocations to 30 September 2008		16,426,222				
Allocation for FY 2009		0				
Allocation for FY 2010		0				
Recovery Act Allocation To Date		0				
President's Budget for FY 2011		350,000				
Allocation for FY 2011		TBD				
Allocations through FY 2011		16,776,222	45.6%			
Allocation Requested for FY 2012		350,000	46.5%			
Programmed Balance to Complete after FY 2012		19,673,778				
Un-programmed Balance to Complete after FY 2012		0				

Division: South Atlantic

District: Jacksonville

Ft. Pierce Beach, Florida

PHYSICAL DATA

Initial Fill 1.3-mile	718,000 Cubic yards
Initial Fill of Additional 1.0-mile	652,000 Cubic yards
Future Renourishments	599,000 Cubic yards every 6 years

JUSTIFICATION: The Fort Pierce Beach shore protection project consists of 2.3 miles of shoreline extending southward from Fort Pierce Inlet. Economic justification for this project is based on the protection of structural improvements located along the front row of development of the shoreline, prevention of land losses, and prevention of repair and replacement of coastal armor. Shorefront development within the project limits is a mix of single family, multi-family, commercial, and park improvements. Justification for the authorized project is based on the remaining 20 years of the project economic life. Total annual benefits for the project are \$2,587,000 while the total annual costs were determined to be \$1,382,500, yielding a benefit-to-cost ratio of 1.9 to 1.0. Average annual benefits for the authorized project as stated in Fort Pierce, Florida Shore Protection Project, St. Lucie County, Florida, General Reevaluation Report with Environmental Assessment dated September 1998, are as follows:

Annual Benefits	Amount
Storm Damage Prevention	2,587,000
Recreation	98,600
Total	2,685,600

FISCAL YEAR 2011: Fiscal Year 2011 funds are being used for environment monitoring activities due to impacts from the Federal navigation project.

FISCAL YEAR 2012: The requested amount will be applied as follows:

Environmental Monitoring	350,000
Total	\$ 350,000

NON-FEDERAL COST: In accordance with the cost-sharing concepts reflected in the Fort Pierce, Florida Shore Protection Project, St. Lucie County, Florida, General Reevaluation Report with Environmental Assessment dated September 1998.

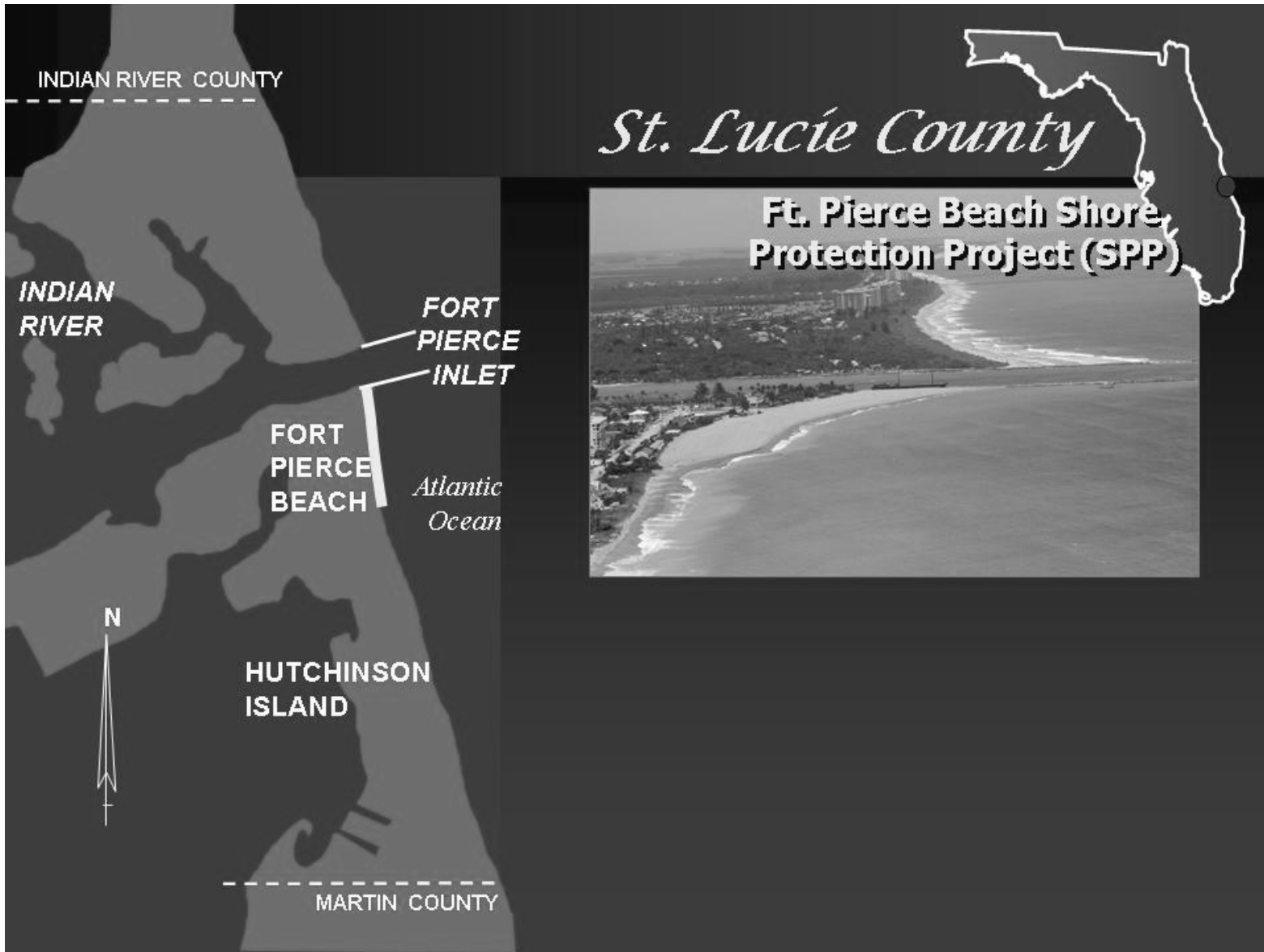
Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, rights-of-way, relocations, and dredged material disposal areas	185,000	
Pay 22.5 percent of the costs allocated to initial fill	2,024,000	
Pay 22.5 percent of the costs allocated to periodic renourishment of the project shoreline	18,191,000	
Total Non-Federal Cost	20,400,000	

STATUS OF LOCAL COOPERATION: A Project Cooperation Agreement was executed 3 September 1998 to extend Federal participation to the year 2020 for the 1.3-mile authorized project.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal (Corps) cost estimate of \$36,800,000 is an increase of \$1,900,000 from the latest estimate (\$34,900,000) presented to Congress in FY 2011. This increase includes the following:

Item	Amount
Price Level and Other Estimating Adjustments	1,900,000
Total	1,900,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: A final EIS was prepared in 1978. An Environmental Assessment and a FONSI (Finding-of-No-Significant-Impact) are included in the Fort Pierce, Florida Shore Protection Project, Reevaluation Report, Section 934 Study with Environmental Assessment dated August 1993 (Revised May 1995). The FONSI was signed 16 May 1995. As part of the GRR dated September 1998, a new Environmental Assessment was prepared and a FONSI was signed 25 September 1998.



Division: South Atlantic

District: Jacksonville

Ft. Pierce Beach, Florida

APPROPRIATION TITLE: Construction - Channels and Harbors (Navigation)

PROJECT: Jacksonville Harbor, Florida (Continuing)

LOCATION: The project area is located at the mouth of the St. Johns River where it empties into the Atlantic Ocean in Duval County on the east coast of Florida.

DESCRIPTION: The project consists of deepening the main channel to a project depth of 40 feet from the 40-foot contour in the Atlantic Ocean to about mile 14.7; realignment of Cuts 39-41 of the main channel; deepening the West Blount Island Channel along Cuts F and G to 38-foot depth over the existing project width of 300 feet from the main channel to the Jacksonville Electric Authority/Jacksonville Port Authority (JEA/JPA) petroleum terminal; raising the existing dikes on the east end of Bartram Island to accommodate the material from deepening of the West Blount Island Channel; and extension of the main channel to a project depth of 40 feet from river mile 14.7 to mile 20.0.

AUTHORIZATION: Water Resources Development Act of 1999 and Energy and Water Development Appropriations Act of 2006 (Public Law 109-103).

REMAINING BENEFIT - REMAINING COST RATIO: N/A (DMDf Portion)

TOTAL BENEFIT - COST RATIO: N/A (DMDf Portion)

INITIAL BENEFIT-COST RATIO: N/A (DMDf Portion)

BASIS OF BENEFIT-COST RATIO: Benefits are included in the Jacksonville Harbor Final Feasibility Report completed in September 1998 at October 1998 price levels and the Jacksonville Harbor General Reevaluation Report approved in July 2003 at October 2002 price levels.

Division: South Atlantic

District: Jacksonville

Jacksonville Harbor, FL

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST	STATUS (1 Jan 2011)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Total Appropriation Requirement	81,600,000		Channels & Canals		
Future Non-Federal Reimbursement	9,967,000		Main Channel	100	Jun 2010
Estimated Federal Cost (Ultimate)	71,633,000		Disposal Facilities	0	TBD
Estimated Non-Federal Cost	55,127,000		Entire Project	90	TBD
Cash Contributions	24,912,000				
Other	20,248,000				
Reimbursement Navigation	9,967,000				
Total Estimated Project Cost	126,760,000				
Allocations through 30 September 2008	28,642,700				
Allocation for FY 2009	3,349,000				
Allocation for FY 2010	1,922,000				
Recovery Act Allocation To Date	34,355,000				
President's Budget for FY 2011	6,000,000				
Allocation for FY 2011	TBD				
Allocations through FY 2011	74,268,700	91.0%			
Allocation Requested for FY 2012	7,000,000	99.6%			
Programmed Balance to Complete after FY 2012	331,300				
Un-programmed Balance to Complete after FY 2012	0				

Division: South Atlantic

District: Jacksonville

Jacksonville Harbor, FL

JUSTIFICATION: Jacksonville Harbor in 1988 and 1989 averaged about 15.4 million tons of cargo per year, 53 percent of which is bulk petroleum and coal. The total amount of cargo shipped through JAXPORT has increased 18% in the last 5 years. Port Authority representatives would like the channel deepened to accommodate larger vessels now being utilized by the world's commercial fleet. Various types of vessels carrying containers, coal, and fuel must light load instead of using full cargo carrying capacity. Average annual benefits amount to \$3,027,000, all for commercial navigation. The Port also supports military activities such as the deployment of equipment and materials to Iraq. It is designated as a strategic port.

Annual Benefits	Amount
Deep Draft Navigation	3,027,000
Total	3,027,000

FISCAL YEAR 2011: Fiscal Year 2011 funds are being used to award the DMDF construction contract, engineering during construction, and construction management.

FISCAL YEAR 2012: The requested amount will be applied as follows:

DMDF Construction	\$ 5,600,000
Engineering During Construction	462,000
Supervision and Administration	938,000
Total	\$ 7,000,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, and rights-of-way	31,000	
Pay 25 percent of the costs allocated to deep draft navigation during construction	24,881,000	0
Reimburse an additional 10 percent of the costs of general navigation features allocated to commercial navigation within a period of 30 years following completion of construction as reduced by a credit allowed for the value of lands, easements, rights of way, relocations, and dredged or excavated material disposal areas provided for commercial navigation.	9,967,000	0
Pay 100% of the costs associated with additional 1' deepening, dredging berthing areas and bulkhead modifications.	20,248,000	0
Total Non-Federal Cost	55,127,000	0

STATUS OF LOCAL COOPERATION: The Jacksonville Harbor Port Authority strongly supports this project. The Project Cooperation Agreement for the 40-foot channel to Mile 14.7 was executed in March 2001. A Cost Sharing Agreement for the second GRR (to study additional deepening to 45 feet to Mile 20.0) was executed in May 2004. A Cost Sharing Agreement and a PED Agreement for the extension of the 40-foot project from Mile 14.7 to Mile 20.0 were executed in July 2005. A PCA for the extension of the 40-foot project from Mile 14.7 to Mile 20.0 was executed in September 2006.

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal (Corps) cost estimate of \$81,600,000 is a \$4,500,000 increase over the estimate (\$77,100,000) last presented to Congress (FY 2011). This change includes the following items:

Item	Amount
Price Level and Other Estimating Adjustments	\$ 4,500,000
Total \$	4,500,000

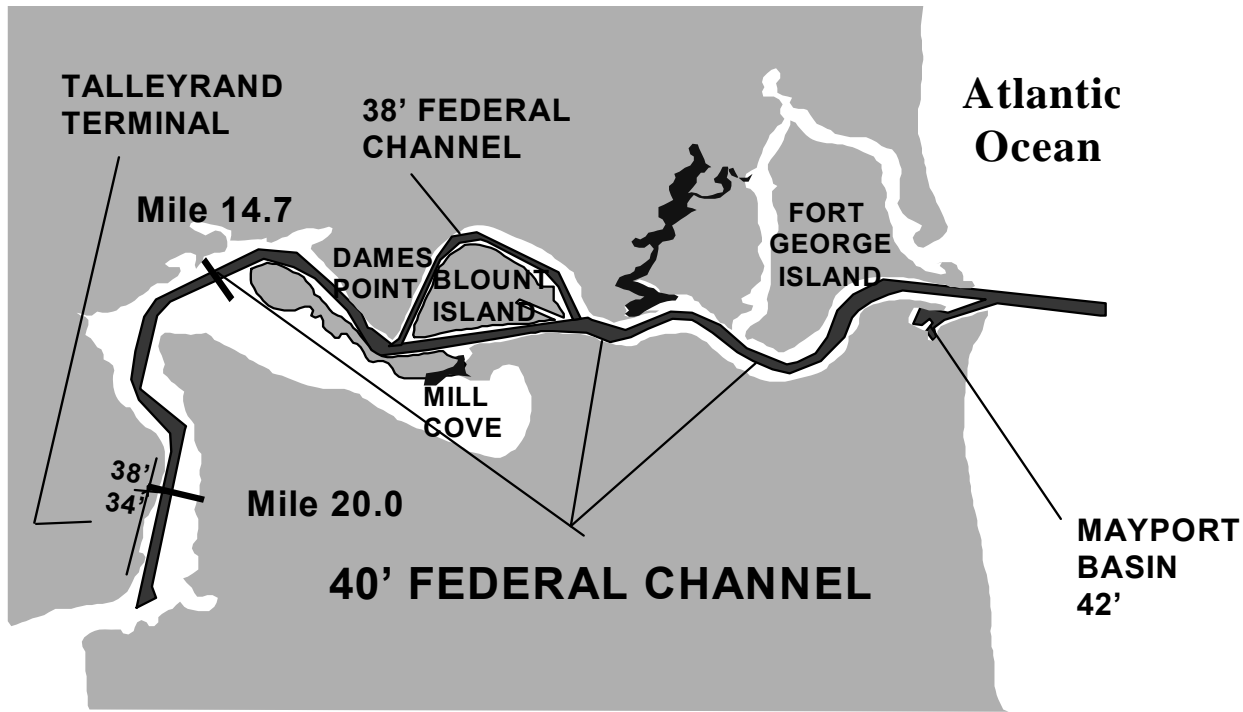
STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Final Environmental Impact Statement for Contract I and II was completed in September 1998 and the Final Environmental Assessment for the GRR to extend the 40-foot project from Mile 14.7 to Mile 20.0 was completed in October 2002.

OTHER INFORMATION: The GRR to extend the 40-foot project from Mile 14.7 to Mile 20.0 was approved by Chief of Engineer's Report issued on 22 July 2003 and was authorized by Public Law 109-103.

Division: South Atlantic

District: Jacksonville

Jacksonville Harbor, FL



**JACKSONVILLE HARBOR,
FLORIDA**

Division: South Atlantic

District: Jacksonville

Jacksonville Harbor, FL

APPROPRIATION TITLE: Construction – Channels and Harbors (Navigation)

PROJECT: Savannah Harbor Dredge Material Disposal Facilities, Georgia and South Carolina (Continuing)

LOCATION: The Savannah Harbor Dredge Material Disposal Facilities (DMDFs) are located in Jasper County, SC adjacent to the Savannah Harbor Federal Navigation project. The DMDFs are integral to the continued operations and maintenance of the Savannah Harbor Federal Navigation project area which includes the lower 21.3 miles of the Savannah River and is the principal boundary between the states of Georgia and South Carolina.

DESCRIPTION: The DMDFs project provides for incrementally raising each of the dikes within the Federal project's seven DMDFs at a cycle of one disposal area per year to increase their capacity as required to support the Savannah Harbor 42' Federal Navigation project authorized in WRDA 1992. The increase in DMDF capacity is cost-shared with the State of Georgia under the authority provided in the Water Resources Development Act of 1996. The Project Cooperation Agreement was executed with the Georgia Department of Transportation in January 2005 for project costs through FY 2026.

AUTHORIZATION: The DMDFs are included as a part of the Savannah Harbor Federal Navigation Project authorized in the Water Resources Development Act of 1992 (P.L. 102-580). Section 201 (P.L. 104-303) of the Water Resources Development Act of 1996 addressed cost sharing for dredged material disposal facilities.

REMAINING BENEFIT-REMAINING COST RATIO: N/A

TOTAL BENEFIT-COST RATIO: N/A

INITIAL BENEFIT-COST RATIO: Benefits are related to the on-going operation and maintenance of the Savannah Harbor 42' Federal Navigation project. A benefit-cost ratio for just this portion of the Savannah Harbor Navigation project was not developed.

BASIS OF BENEFIT-COST RATIO: N/A

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST	STATUS (1 Jan 2011)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Total Appropriation Requirement 1/	\$39,000,000		Entire Project	41%	N/A
Future Non-Federal Reimbursement					
Estimated Federal Cost (Ultimate)	\$39,000,000				
Estimated Non-Federal Cost	\$21,438,400				
Cash Contributions	\$21,438,400				
Reimbursements					
Total Estimated Project Cost	\$60,438,400				
Allocations to 30 September 2008	8,821,000				
Allocation for FY 2009	5,048,000				
Allocation for FY 2010	(400,000)				
Recovery Act Allocation To Date	2,275,000				
President's Budget for FY 2011	400,000				
Allocation for FY 2011	TBD				
Allocations thru FY 2011	16,144,000	41%			
Budget for FY 2012	5,040,000	54%			
Programmed Balance to Complete after FY 2012	17,816,000				
Un-programmed Balance to Complete after FY 2012					
1/ Total Federal Cost of Dike raisings through FY2026					

Division: South Atlantic

District: Savannah

Savannah Harbor Disposal Areas, GA & SC

PHYSICAL DATA

Lands (Acres)	Total
Type: 7 Active upland disposal sites confined by earthen dikes	5,250 acres

JUSTIFICATION: The Savannah Harbor has 61 piers and wharves that serve existing waterborne commerce. The Georgia Ports Authority is currently the second largest container port on the U.S. East Coast, with over 2 million Twenty-foot Equivalent Units (TEUs) passing through the GPA Garden City port facility annually. The Long Term Management Strategy (LTMS) for the Savannah Harbor, dated August 1996, described the least cost plan to continue maintenance of the existing project. The sequential raising of dikes in each of the DMDF is critical to the ability of the U.S. Army Corps of Engineers to maintain the 42' Savannah Harbor Federal Navigation project. The LTMS, as well as the annual Dredge Material Management Plan (DMMP), forecasts the dredge disposal requirements for the next 20 years.

Annual Benefits	Amount
Total	N/A

FISCAL YEAR 2011: Fiscal Year 2011 funds are being used to initiate the Jones Oyster-Bed Island Dike Raising contract.

FISCAL YEAR 2012: Fiscal year 2012 funds will be used to award the next option on Jones Oyster-Bed Dike Raising contract to increase capacity of dredged material containment area to allow continued operation of the Savannah Harbor Federal Navigation Project.

D MDF	\$5,040,000
Total	\$5,040,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below:

Requirements of local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas.	0	0
Pay 35 percent of the costs allocated to navigation during construction.	\$21,000,000	0
Pay 100 percent of the costs associated with dredging berthing areas and mitigation provisions.	\$438,400	0
Total Non-Federal Costs	\$21,438,400	0

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: The Georgia Department of Transportation (GaDOT) is the non-Federal project sponsor. A Project Cooperation Agreement (PCA) was executed with the GaDOT in January 2005 under the authority Water Resources Development Act of 1996. The WRDA 96 Authority (Section 201) allows for the cost-sharing of the creation of new disposal area capacity and the adoption of the new capacity into the Corps O&M requirements.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal (Corps) cost estimate of \$39,000,000 is an increase of \$17,285,060 from the latest estimate presented to Congress (FY 2011)

Item	Amount
Other Estimating Adjustments	\$17,285,060
Total	\$17,285,060

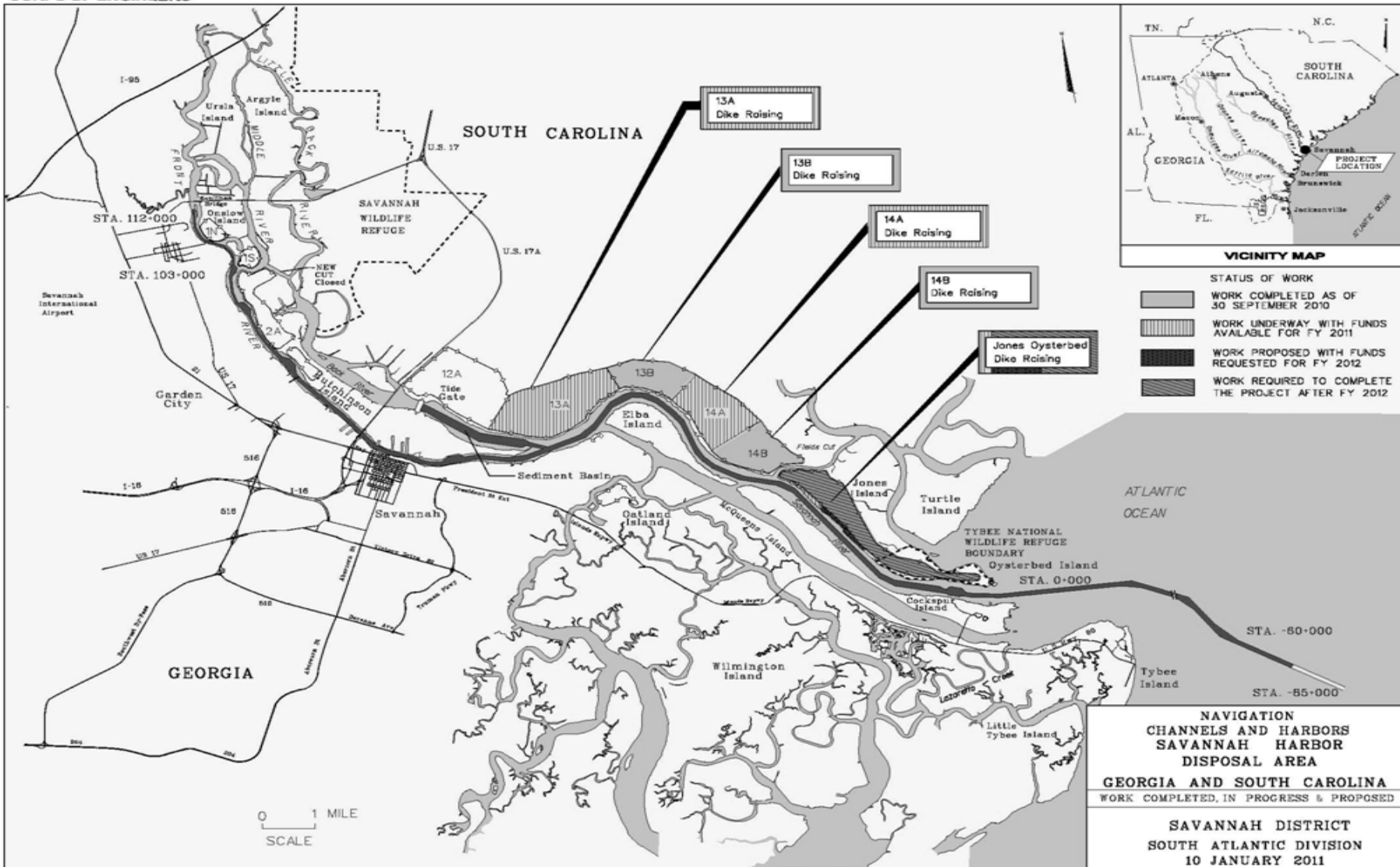
Division: South Atlantic

District: Savannah

Savannah Harbor Disposal Areas, GA & SC

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Savannah Harbor Long Term Management Strategy (LTMS) was completed in 1996. The Record of Decision (ROD) was signed February 3, 1997. A revised Dredge Material Management Plan approved in September 2003 recommends no changes to the LTMS Environmental recommendations.

OTHER INFORMATION: Federal cost of the project erroneously recorded on the Justification Sheet dated 1 Feb 10, only included the dike raising cost at FY2002 price levels which did not include hired labor, contingencies or inflation to the midpoint of construction.



Division: South Atlantic

District: Savannah

Savannah Harbor Disposal Areas, GA & SC

APPROPRIATION TITLE: Construction - Channels and Harbors (Navigation)

PROJECT: Tampa Harbor, Main Channel, Florida (Continuing)

LOCATION: Tampa Harbor is located about midway along the Gulf coast of Florida in Tampa and Hillsboro Bays.

DESCRIPTION: The total project consists of a channel from the Gulf of Mexico to Port Tampa and Tampa. Project features include the entrance channel from the Gulf of Mexico to Hillsborough Bay. At Hillsborough Bay, the channel splits into two legs, with one continuing west to Port Tampa and the other east to Gadsden Point. The west channel continues to Port Tampa and ends in a turning basin. The east channel to Gadsden Point includes the Alafia River, Port Sutton, East Bay, and Seddon Channels. The project depth varies from 45 feet in the entrance channel at the Egmont Bar Channel to 30 feet in the Alafia River. Length of project is about 67 miles including 3.6 miles in the Alafia River.

AUTHORIZATION: River and Harbor Act of 1970.

REMAINING BENEFIT-REMAINING COST RATIO: N/A (DMDF Portion)

TOTAL BENEFIT-COST RATIO: N/A (DMDF Portion)

INITIAL BENEFIT-COST RATIO: N/A (DMDF Portion)

BASIS OF BENEFIT-COST RATIO: The benefit-cost ratio for the fiscal year for which Congress appropriated initial construction funds (FY 1975) was 1.7 to 1.

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST	STATUS (1 Jan 2011)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Appropriation Requirement (COE)	179,767,400		Channels & Canals		
Estimated Appropriation Requirement (USCG)	1,708,000		Main Channels	100	Aug 88
Estimated Non-Federal Cost	6,700,000		Disposal Area Raising	93	TBD
Cash Contributions	2,727,000				
Other	3,973,000		Entire Project	99	TBD
Total Estimated Project Cost	188,175,400				
Allocations to 30 September 2008	173,767,400				
Allocation for FY 2009	0				
Allocation for FY 2010	0				
Recovery Act Allocation To Date	0				
President's Budget for FY 2011	1,000,000				
Allocation for FY 2011	TBD				
Allocations through FY 2011	174,767,400	97.2%			
Allocation Requested for FY 2012	3,000,000	98.9%			
Programmed Balance to Complete after FY 2012	2,000,000				
Un-programmed Balance to Complete After FY 2012	0				

JUSTIFICATION: Tampa Harbor is among the nation's leading exporters of phosphate rock and chemicals. Average annual benefits, for all navigation features, are \$31,400,000 at October 1984 price levels.

Annual Benefits	Amount
Deep Draft Navigation	31,400,000
Total	31,400,000

Division: South Atlantic

District: Jacksonville

Tampa Harbor, Main Channel, FL

FISCAL YEAR 2011: Fiscal Year 2011 funds are being used to award the DMDF construction contract, engineering during construction, and construction management.

FISCAL YEAR 2012: The requested amount will be applied as follows:

Continue DMDF construction	\$ 2,400,000
Planning, Engineering and Design	210,000
Construction management	390,000
Total	\$ 3,000,000

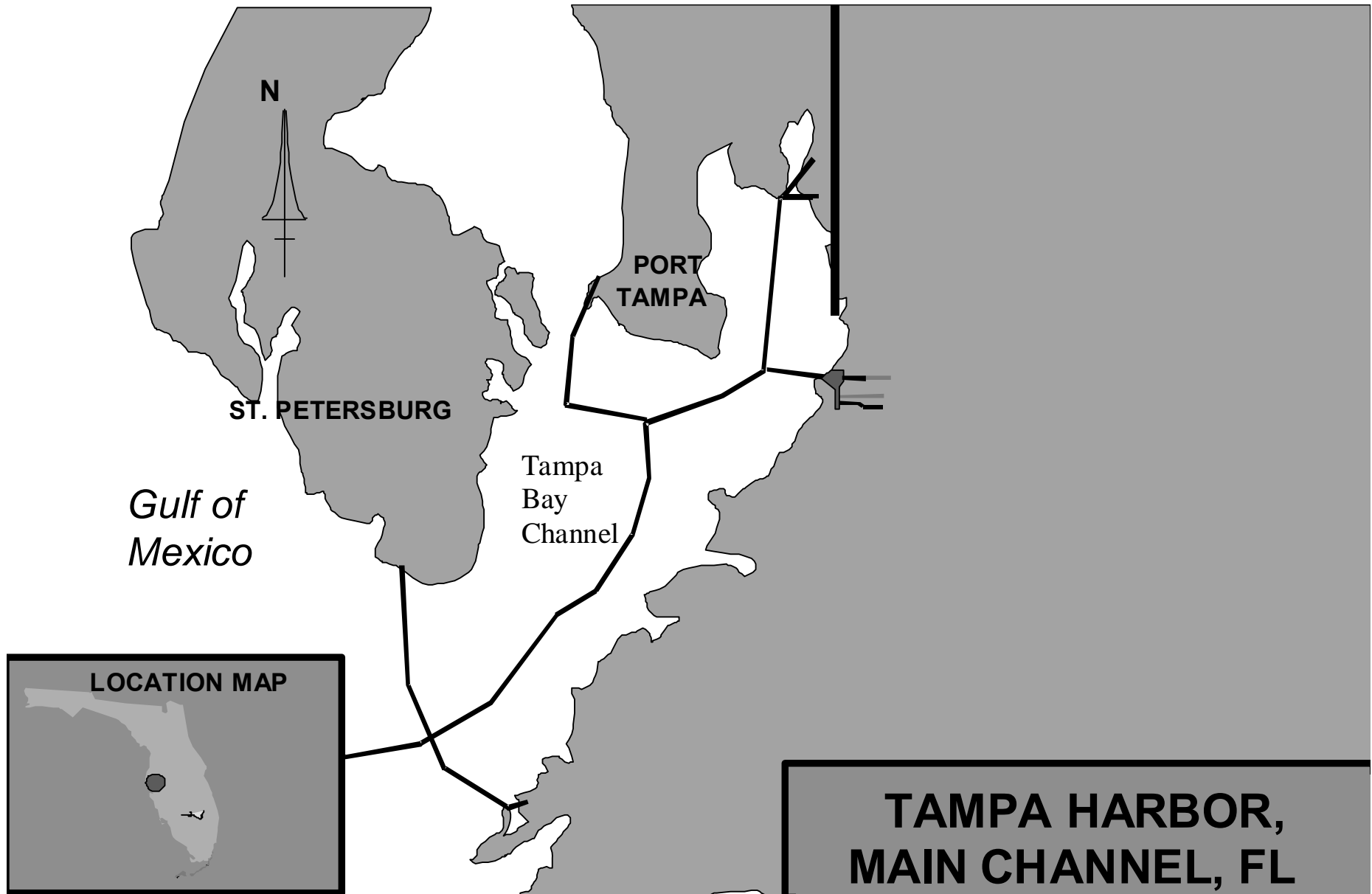
NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Pay 0.6 percent of the costs allocated to deep draft navigation during construction.	2,727,000	0
Diking.	3,973,000	0
Total Non-Federal Cost	6,700,000	0

STATUS OF LOCAL COOPERATION: The Tampa Port Authority strongly supports this project.

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal (Corps) cost estimate of \$179,767,440 is an increase of \$3,000,000 over the last estimate (\$176,767,440) presented to Congress (FY 2011). This change includes the following items:

Item	Amount
Post contract award and other estimating adjustments	\$ 3,000,000
Total	\$ 3,000,000



+

Division: South Atlantic

District: Jacksonville

Tampa Harbor, Main Channel, FL

14 February 2011

SAD - 95

AQUATIC ECOSYSTEM RESTORATION

INVESTIGATIONS

Study		Total Estimated Federal Cost	Allocation Prior to FY 2009	Allocation FY 2009	Allocation FY 2010	President's Budget FY 2011	Tentative Allocation FY 2012	Additional to Complete After FY 2012
		\$	\$	\$	\$	\$	\$	\$
Cano Martin Peña, PR	Annual Allocations	196,900	96,900	0	0	0	100,000	0
Jacksonville District	ARRA Allocations	0	0	0	0	0	0	0
	Total Allocations	196,900	96,900	0	0	0	100,000	0

The Cano Martin Peña Canal is a tidal canal approximately 3.8 miles long connecting San Juan Bay and the San Jose Lagoon in metropolitan San Juan. The drainage area of the canal is about 2,500 acres. In 1988 the first 2.0 miles from San Juan Bay eastward to Munoz Rivera Avenue was dredged to 200 feet wide by 10 feet deep to provide a navigation channel for an intermodal passenger transport service. Vertical king pile walls line both sides of the channel. Urban development has encroached into the remaining unimproved portion of the canal and untreated discharge of local household and industrial wastes have left the canal in very poor condition. Under the authority of a Memorandum of Agreement (MOA) executed in February 1996 between the Jacksonville District U.S. Army Corps of Engineers and the Puerto Rico Department of Natural and Environmental Resources (DNER); the DNER contracted the Jacksonville Corps of Engineers to prepare a Design Memorandum (DM) to continue the dredging of the Cano Martin Peña 1.8 miles to the San Jose Lagoon. Three preliminary alternatives were initially investigated, a shallow existing channel clean out, an earth trapezoidal channel which would maximize the conveyance through proposed new 200-foot wide bridges, and a vertical sheet pile wall rectangular channel similar to the channel constructed for the Agua Guagua. The latter plan was selected by DNER and was developed in the Design Memorandum in sufficient detail, including identification of suitable disposal areas, environmental impacts, and real estate requirements.

Total Estimated Study Cost	\$1,696,900
Reconnaissance Phase (Federal)	96,900
Feasibility Phase (Federal)	100,000
Feasibility Phase (Non-Federal)	1,500,000

The reconnaissance report (Section 905 (b)) was completed and approved in July 2004 after which the non-Federal sponsor issued a \$1,400,000 contract for feasibility assessment. Upon receipt of federal funding, a cost sharing agreement will be executed which will fund the Corps of Engineer's review of the non-Federal feasibility report. At the present time, the District is working with the non-Federal sponsor as per the new project authorization in Section 5127 of WRDA 2007.

APPROPRIATION TITLE: Investigations, Fiscal Year 2012

Division: South Atlantic

Study		Total Estimated Federal Cost \$	Allocation Prior to FY 2009 \$	Allocation FY 2009 \$	Allocation FY 2010 \$	President's Budget FY 2011 \$	Tentative Allocation FY 2012 \$	Additional to Complete After FY 2012 \$
Currituck Sound, NC	Annual Allocations	2,250,000	923,000	143,000	126,000	300,000	400,000	358,000
Wilmington District	ARRA Allocations	0	0	0	0	0	0	0
	Total Allocations	2,250,000	923,000	143,000	126,000	300,000	400,000	358,000

The study area, comprised of Currituck Sound and Back Bay, is located in Currituck and Dare Counties in northeastern North Carolina, and in Chesapeake and Virginia Beach Counties in southeastern Virginia. Currituck Sound, Back Bay and their watersheds comprise one of the most unique brackish water estuaries and wildlife habitats in the United States. Together, they are the beginning of North Carolina's legendary Outer Banks, and the northern end of the Albemarle-Pamlico National Estuarine System comprising an area of over 190 square miles. Currituck Sound and Back Bay are renowned for prolific waterfowl and fish populations. Local interests are concerned about significant declines in these populations in recent years. Based on the Currituck Sound study of mid-winter waterfowl surveys conducted from 1961 through 2006, the waterfowl population peaked in 1976, with 305,000 birds. Since then, the waterfowl population declined well below 50,000 birds, with an estimated average of 25,000 birds per year. Of the 21 fish species identified in 1961, only fifteen were identified in 2003. The declines in the fish and waterfowl populations are attributed to significant loss of submerged aquatic vegetation (SAV), a major food source for water bird and marine mammals, and critical habitat for a host of vertebrate and invertebrate organisms. SAV once grew in abundance, covering most of the shallow waters of Currituck Sound and Back Bay. Today, these areas retain only 35% and 5%, respectively, of the SAV distributions of 25 years ago. SAV loss has been attributed to water quality degradation and development pressures in the region. Potential alternative actions could include marsh creation, development of bird rookery, and creation of submerged aquatic vegetation. The feasibility cost sharing agreement was signed on 5 February 2004 with the state of North Carolina. Non-Corps study participants include Elizabeth City State University, the U.S. Geological Survey, the N.C. Estuarine Research Reserve, the U.S. Fish and Wildlife Service, and the N.C. Department of Environment and Natural Resources, Division of Water Resources, and the Albemarle-Pamlico National Estuary Program.

Fiscal Year 2011 funds are being used to continue the feasibility phase, complete hydrodynamic and water quality modeling and initiate site selection and sediment modeling. Fiscal Year 2012 funds will be used to continue the feasibility phase, complete the draft report, and conduct public review of National Environmental Policy Act documents. The estimated cost of the feasibility phase is \$4,000,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests except for the independent external peer review which will be fully federally funded and is currently estimated at \$250,000. A summary of study cost sharing is as follows:

Total Estimated Study Cost	\$4,125,000
Reconnaissance Phase (Federal)	125,000
Feasibility Phase (Federal)	2,125,000
Feasibility Phase (Non-Federal)	1,875,000

The reconnaissance phase was completed in February 2004. The feasibility study is scheduled for completion in August 2013.

APPROPRIATION TITLE: Investigations, Fiscal Year 2012

Division: South Atlantic

Study		Total Estimated Federal Cost \$	Allocation Prior to FY 2009 \$	Allocation FY 2009 \$	Allocation FY 2010 \$	President's Budget FY 2011 \$	Tentative Allocation FY 2012 \$	Additional to Complete After FY 2012 \$
John H. Kerr Dam, NC & VA	Annual Allocations	2,915,000	1,682,000	287,000	251,000	300,000	365,000	30,000
	ARRA Allocations	0	0	0	0	0	0	0
Wilmington District	Total Allocations	2,915,000	1,682,000	287,000	251,000	300,000	365,000	30,000

The John H. Kerr Dam and Reservoir is located in the Roanoke River basin, which extends into north-central North Carolina and south-central Virginia. The project was completed in 1952 and provides hydropower, flood risk management, water supply, and recreation. Two downstream non-Federal hydropower reservoirs operated by Dominion North Carolina Power, Gaston and Roanoke Rapids, have minimal active storage for daily hydropower peaking. The Kerr, Gaston and Roanoke Rapids projects operate cooperatively to generate power, reduce flood damage, and ensure appropriate downstream flows. The lower Roanoke River basin is one of the finest remaining river swamp forest ecosystems in the eastern United States, and is designated as one of The Nature Conservancy's Sustainable Rivers Projects. These bottomland hardwood forests, wetlands, uplands, and streams provide a high quality habitat for fish and wildlife, including waterfowl. Federal and state agencies have expressed concern that there is a correlation between operation of Kerr Reservoir and fish kills in the lower Roanoke River due to low dissolved oxygen. Resource concerns for the lower Roanoke River include the need for restoration and enhancement of extensive swamp and flood plain forest habitat and fisheries through improvements to the hydrologic regime. The feasibility cost sharing agreement was signed on 17 June 2003 by the state of North Carolina and the commonwealth of Virginia, who are fully committed to the requirements for the feasibility study.

Fiscal Year 2011 funds are being used to continue plan formulation and evaluation, conduct the feasibility scoping meeting and complete stage two technical studies, data collection and modeling. Fiscal Year 2012 funds would be used to conduct the alternative formulation briefing, complete plan formulation and evaluation, prepare the draft feasibility report, initiate Corps of Engineers review of the draft report, and initiate independent external peer review. The estimated cost of the feasibility phase is \$5,280,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests except for the independent external peer review which is fully federally funded and is currently estimated at \$200,000. A summary of study cost sharing is as follows:

Total Estimated Study Cost	\$5,455,000
Reconnaissance Phase (Federal)	175,000
Feasibility Phase (Federal)	2,740,000
Feasibility Phase (Non-Federal)	2,540,000

The reconnaissance phase was completed in June 2003. The feasibility phase is scheduled to be completed in August 2013.

APPROPRIATION TITLE: Investigations, Fiscal Year 2012

Division: South Atlantic

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2009 \$	Allocation FY 2009 \$	Allocation FY 2010 \$	President's Budget FY 2011 \$	Tentative Allocation FY 2012 \$	Additional to complete After FY 2012 \$
PRECONSTRUCTION ENGINEERING AND DESIGN (PED) ACTIVITIES – (ENR)							
Neuse River Basin, NC Wilmington District							
Annual Allocation	900,000	0	0	0	*200,000	**450,000	800,000
ARRA Allocations	0	0	0	0	0	0	0
Total Allocations	900,000	0	0	0	*200,000	**450,000	800,000

*FY11 funds of \$ 200,000 will be used to continue Feasibility phase.

** FY12 funds of \$ 350,000 will be used to complete Feasibility phase.

The Neuse River basin is located in the eastern part of North Carolina and encompasses approximately 11 percent of the state of North Carolina's physical size and consists of all or portions of 19 counties. The basin is roughly oblong in shape, approximately 180 miles long, with a maximum width of about 46 miles. The Neuse River is formed by the confluence of the Eno and Flat Rivers, about 8 miles north of Durham, and has a drainage area of approximately 5,710 square miles. The basin is primarily agricultural, but contains many small towns and cities, which are important commercial centers. At the City of New Bern, the Neuse River system changes from a free-flowing river to a tidal estuary. There have been considerable problems in the basin due to increased urbanization in the Raleigh-Durham area, sediment and nutrient loading from agricultural areas in the lower half of the basin, and over-harvesting of certain fisheries in the Neuse Estuary, all of which have had adverse impacts on wetlands and submerged aquatic vegetation (SAV). Estuarine bottom is lost annually due to low dissolved oxygen. Environmental restoration alternatives are expected to include construction of up to 2,000 acres of oyster reefs in the Neuse River estuary, part of Albemarle-Pamlico National Estuary, and restoration of 4 streams including removal and/or modification of 5 dams. A secondary focus of this project is flood damage reduction. A number of flood prone structures have been removed by the Federal Emergency Management Agency, which has reduced the occurrence of future flood damages within the flood plain. The sponsor, NC Department of Environment and Natural Resources, supports the project as evidenced by their execution of the feasibility cost sharing agreement in May 2002, understands and is ready to sign the PED cost sharing agreement. PED will ultimately be cost shared at the rate for the project to be constructed but will be financed through PED at 25% non-Federal. Any adjustment that may be necessary to bring the non-Federal contribution in line with the project cost sharing will be accomplished in the first year of construction.

Total Estimated Preconstruction Engineering and Design Costs	\$1,200,000	Total Estimated Preconstruction Engineering and Design Costs	\$1,200,000
Initial Federal Share	900,000	Ultimate Federal Share	780,000
Initial Non-Federal Share	300,000	Ultimate Non-Federal Share	420,000

The project is not yet authorized for construction. Once authorized, the non-Federal sponsor must provide all lands, easements and rights of way, including suitable borrow and spoil disposal areas; pay 35 percent of the first costs allocated to environmental restoration and flood damage reduction; and bear all costs of operation, maintenance, repair, replacement and rehabilitation of constructed facilities. Fiscal year 2011 funds are being utilized to continue the feasibility phase. Fiscal year 2012 funds would be used to complete the feasibility study (\$350,000) and initiate PED (\$100,000). The feasibility phase is scheduled for completion in August 2012. PED is scheduled to be completed in December 2015.

CONSTRUCTION

APPROPRIATION TITLE: Construction – Environmental Restoration

PROJECT: Lower Savannah River Basin, Georgia and South Carolina (Continuing)

LOCATION: The project is located on the Savannah River between river mile 40.9 and river mile 42.0, approximately 20 river miles above the city of Savannah, Georgia. The project area itself is located within Effingham County, Georgia and Jasper County, South Carolina. A portion of the project is within the US Fish and Wildlife Service's Savannah National Wildlife Refuge.

DESCRIPTION: This environmental restoration project was authorized by a resolution passed on August 1, 1990, by the U.S. House of Representatives Committee on Public Works and Transportation. The approved project cost is \$4,343,464. The project plan included a large partial diversion structure at cut #3; a plug in bend #3 below the mouth of Bear Creek and realignment and restoration of the mouths of Bear and Mill Creeks, which provides improved flows into both creeks. Five years post construction monitoring is required per the EA and FONSI, however only one year has been performed. Upon completion of the fifth year of monitoring, an environmental close-out report will be prepared to document the effectiveness of the project.

AUTHORIZATION: Water Resources Development Act of 1996.

REMAINING BENEFIT - REMAINING COST RATIO: Benefits are attributable to Environmental Restoration therefore, a monetary benefit-cost to ratio is not required to be developed.

TOTAL BENEFIT - COST RATIO: Benefits are attributable to Environmental Restoration therefore, a monetary benefit-cost to ratio is not required to be developed.

INITIAL BENEFIT - COST RATIO: Benefits are attributable to Environmental Restoration therefore, a monetary benefit-cost to ratio is not required to be developed.

BASIS OF BENEFIT - COST RATIO: N/A

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST	STATUS (1 Jan 2011)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		3,257,598	Entire Project		Completed Jan 2003
Estimated Non-Federal Cost		1,085,866			
Cash Contributions	1,075,000				
LERR&D	10,866				
Total Estimated Project Cost		4,343,464			
Allocations thru 30 September 2008		2,704,000			
Allocation for FY 2009		0			
Allocation for FY 2010		0			
Recovery Act Allocation to Date		0			
President's Budget for FY 2011 1/		49,999			
Allocation for FY 2011		TBD			
Allocations thru FY 2011		2,753,999	84		
Budget for FY2012		45,000	86		
Programmed Balance to Complete after FY 2012		458,599	2/		
Unprogrammed Balance to Complete after FY 2012					

1/ Funds were reprogrammed

2/ The Programmed Balance to Complete after FY2011 is for four years of the five years of required environmental monitoring and preparing the final monitoring report.

Division: South Atlantic

District: Savannah

Lower Savannah River Basin, GA & SC

PHYSICAL DATA

Diversion Structure at Cut #3 & Bend #3:

Constructed of riprap approximately 1/3 the width of the river.

Improvements to Mouth of Bear Creek:

Reorient the mouth so it faces upstream; construct narrow approach channel; plug cutoff bend #3.

Improvements to Mill Creek:

Relocate and realign the mouth toward the river flow; sediment removal at the mouth.

JUSTIFICATION: The River and Harbor Act of 1950 authorized a 9-foot Federal navigation project extending from Augusta, Georgia to the upper limit of Savannah Harbor in Savannah, Georgia. As a method to improve navigation on the river, cuts were installed in the 1960's and 1970's. These cuts straightened and shortened the river course and, as a result, channeled flow away from the original watercourse. Depletion of natural river flows through the cutoff bends resulted in rapid siltation and loss of flow to creeks originating at the bends and their surrounding wetland areas. The project restored the natural flow regime in creeks and wetland areas while simultaneously restoring the environment and wildlife habitat to their pre-navigation conditions. Environmental benefits, which are believed to accrue as a result the project, consist of fish habitat and bottomland hardwoods. In addition, improvements to the environment will directly benefit at least nine species of plants and animals found on the Federal list of threatened and endangered species, including the shortnose sturgeon, peregrine falcon, bald eagle, and wood stork. Benefits are non-monetary.

FISCAL YEAR 2011: With the reprogrammed amount \$49,999 the cost share will be balanced.

FISCAL YEAR 2012: The requested amount will be applied as follows:

Item	Amount
Post Construction Monitoring	\$ 45,000
Total	\$ 45,000

NON-FEDERAL COST: In accordance with the cost sharing and financing requirements in the PCA executed on 24 July 2000, the non-Federal sponsor has provided 25% of total project costs to include Cash Contributions of \$1,075,000 and LERRDs of \$10,866

	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Requirements of local Cooperation		
Total Non-Federal Costs		1,085,866

STATUS OF LOCAL COOPERATION: The City of Savannah, Georgia is the non-Federal project sponsor. The Project Cooperation Agreement was executed on 24 July 2000. During recent bond issuance planning, the financial needs for the project were taken into account.

Division: South Atlantic

District: Savannah

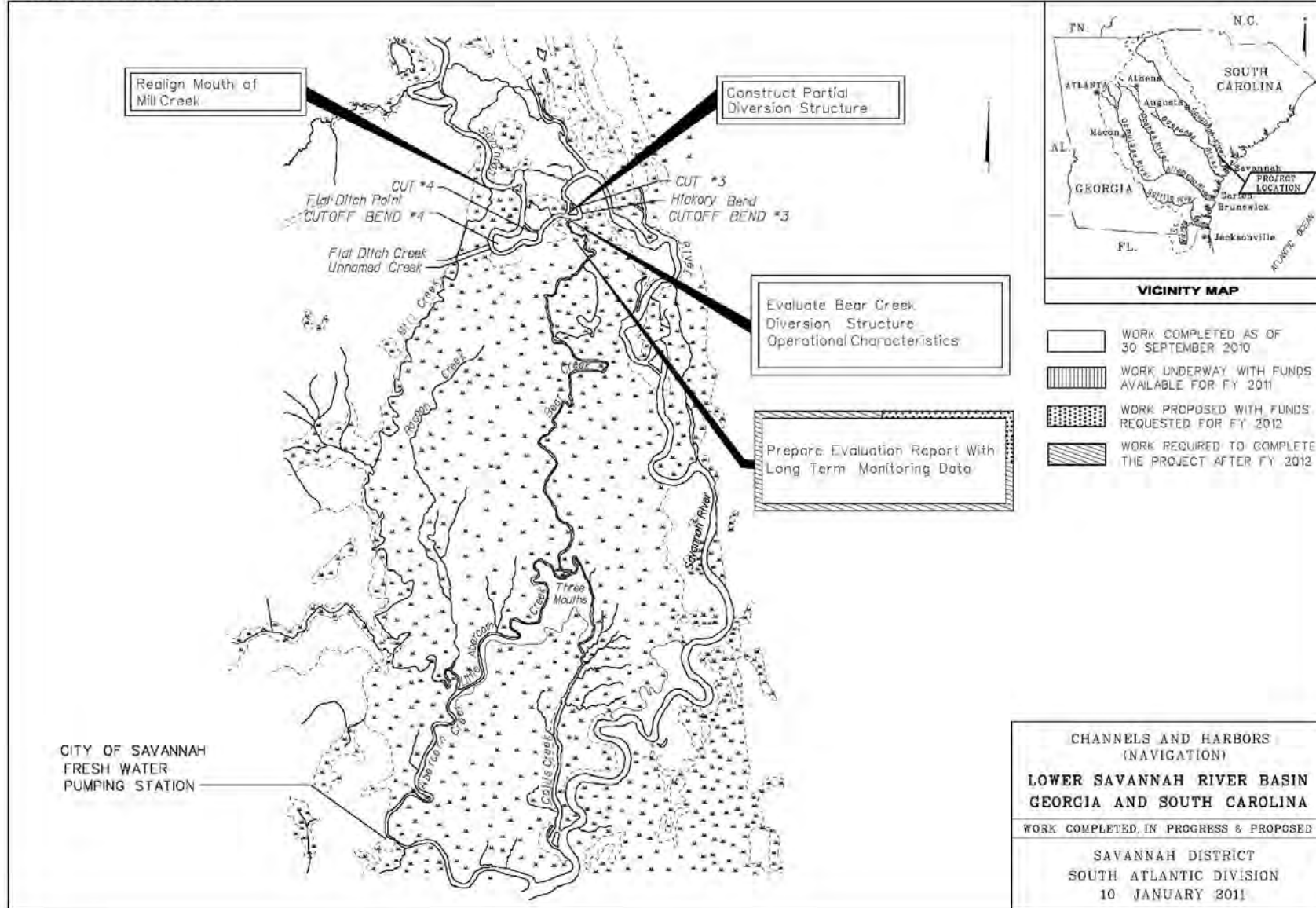
Lower Savannah River Basin, GA & SC

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal Corps cost estimate of \$3,257,598 is the same as the latest estimate presented to Congress (FY2003).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An Environmental Assessment (EA) was prepared for the project and a Finding of No Significant Impact was signed on 22 March 1996.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1996. Funds to initiate construction were appropriated in FY 2000. The construction was physically complete in FY2002. There are minimal operation and maintenance associated with this project. The city of Savannah is 100 percent responsible for all normal operation and maintenance. The EA/FONSI, project authorization and permits require five years of post construction monitoring be conducted and an environmental close out report be prepared. Since FY2002, one year of environmental monitoring was completed in FY2004. A second year of environmental monitoring will be accomplished with \$45,000 in FY12.

Within the project area, the U.S. Geological Survey assesses stream flow and water quality at various locations and the U.S. Fish and Wildlife Service makes periodic filed observations of the conditions of the creeks and forested wetlands.



APPROPRIATION TITLE: Construction – Environmental Restoration

PROJECT: South Florida Ecosystem Restoration Program, Florida (Continuing)

LOCATION: The South Florida Ecosystem Restoration Program stretches from the southern Orlando area southward across the Everglades, the Florida Keys, and the contiguous and near-shore waters of South Florida, and across South Florida from east to west including portions of the drainage areas of the Indian River Lagoon and the Caloosahatchee River, as well as population centers along the southeast and southwest coasts. The project area is defined by the political boundaries of the Southwest Florida Water Management District, and includes all of the Everglades. It encompasses an area of approximately 18,000 square miles, which includes all or part of 18 counties in the southeast part of the State of Florida. Principle areas are the Kissimmee River Basin, Lake Okeechobee, Everglades Agricultural Area, Upper East Coast, Lower East Coast, Big Cypress Basin, Water Conservation Areas, Everglades National Park, Southwest Florida, Florida Bay and the Florida Keys.

DESCRIPTION: The South Florida Ecosystem Restoration Program includes the Central and Southern Florida (C&SF) Project, the Kissimmee River Restoration Project, the Everglades and South Florida Restoration Project, and the Modified Waters Deliveries Project. The C&SF project includes the following separable elements: West Palm Beach Canal, C-111 (South Dade), Comprehensive Everglades Restoration Plan (CERP), and Manatee Pass Thru Gates. The Everglades and South Florida Restoration projects include the following separable elements: East Coast Canal Structures, Western C-11 Basin, Seminole Big Cypress, Ten Mile Creek, Tamiami Trail (Western Culverts), Florida Keys Carrying Capacity, Lake Okeechobee Water Retention, Southern CREW, and Lake Trafford. The objective of the South Florida Ecosystem Restoration Program is to restore, protect and preserve the South Florida ecosystem including the Everglades, while providing for other water related needs of the region.

The C&SF Project includes 1,000 miles of canals, 720 miles of levees and several hundred water control structures, which provide water supply, flood damage reduction, water management and other benefits to south Florida.

The CERP Picayune Strand (Southern Golden Gate Estates) Hydrologic Restoration was authorized under Section 1001(15) of the Water Resources Development Act (WRDA) of 2007. The purpose of this project is to restore and enhance the wetlands in the Southern Golden Gates Estates area of Picayune Strand and in adjacent public lands by restoring historical overland waterflows to the South while maintaining flood control measures for areas to the North. Implementation of the restoration plan would also improve the water quality of coastal estuaries by moderating the large salinity fluctuations caused by freshwater point discharge of the Faka Union Canal. The plan would also aid in protecting the City of Naples eastern Golden Gate wellfield by improving groundwater recharge. The project includes a combination of spreader channels, canal plugs, road removal and pump stations for the Prairie, Merritt, Faka Union and Miller Canals.

The CERP Site 1 Impoundment project was authorized under Section 1001(16) of the Water Resources Development Act of 2007. The purpose of the project is to reduce water withdrawals and seepage losses from Loxahatchee National Wildlife Refuge. It includes: (1) 1,800-acre site with a 1,660-acre project footprint, approximately eight foot deep above ground impoundment, (2) a 600 cfs inflow pump station, (3) discharge gated culvert, (4) one combined service / auxiliary non-gated spillway and one auxiliary non-gated spillway, and (5) seepage control canal with an associated 30 cfs seepage pump station (with one redundant 15 cfs pump) and overflow weir. An additional gated culvert structure is designed to control stages in L-36 Borrow Canal and North Springs Improvement District discharges into the Hillsboro Canal. Recreation features include boardwalks, viewing platforms, picnic shelters, canoe launches and information kiosks at one site within the footprint.

Division: South Atlantic

District: Jacksonville

South Florida Ecosystem Restoration

DESCRIPTION CONT:

The CERP Indian River Lagoon (IRL) project was authorized under Section 1001(14) of the Water Resources Development Act of 2007. It is identified as the most biologically diverse estuarine system in all of North America. The Project Implementation Report (PIR) recommends a plan in Martin, St. Lucie, and Okeechobee Counties that will reduce the damaging effects of watershed runoff, reduce high peak discharges, reduce nutrient loads, provide water quality benefits to control salinity, pesticides, and other pollutants presently discharged to the estuary, and provide water supply for agriculture to offset reliance on the Floridan Aquifer. The plan includes 170,000 acre-feet of reservoir storage (C-44 Reservoir, C-23/24 North/South Reservoirs and C-25 Reservoir), and storm water treatment areas (C-44 West/East, C-23, C-24, and C-25), and provides storage on 92,000 acres of natural storage areas (Allapattah, Palmar, and Cypress Creek). The plan may also include steps to remove up to 7,900,000 cubic yards of muck from the St. Lucie River and Estuary.

The Kissimmee Basin includes 3,000 square miles stretching from Orlando to Lake Okeechobee in central Florida. The Kissimmee River Restoration project involves the ecosystem restoration of the historic floodplain to re-establish wetland conditions by implementing the following: modifications to the operation of the upper chain of lakes; modification of various structures; enlargement of canals 36 and 37; backfilling 22 miles of C-38; excavation of about nine miles of new river channel; removal of two water control structures and locks, floodproofing of developments around the lakes and land acquisition of over 100,000 acres. The project also includes acquisition of fee title for lands within the 5-year-floodplain and acquisition of flowage easements for lands between the five-year-flood line and the 100-year-flood line.

The Everglades and South Florida Restoration Project separable elements must meet the following criteria: be within the C&SF Project and its near shore waters; provide immediate, independent, and substantial ecosystem restoration, protection, and preservation benefits; cost less than \$25 million in Federal funds; be consistent with the Governor's Commission's Conceptual Plan; and have a local sponsor to contribute a minimum of 50% of the total project cost. The Water Resources Development Act of 2007 amended authorization for the Seminole Big Cypress project to increase the Federal share of project costs from \$25M to \$30M.

The Modified Water Deliveries to Everglades National Park (MWD) involves construction of certain modifications to the C&SF Project water management system and related operational changes to improve water deliveries to Everglades National Park (ENP). The project consists of structural features with the intended purpose of improving the conveyance of water between Water Conservation Areas (WCA) north of ENP and the Shark River Slough within the Park. It also involves acquisition of structures and provides flood mitigation to remaining structures in the 8.5 Square Mile Area (SMA), a residential area adjacent to the Park expansion boundary in East Everglades.

AUTHORIZATION: Flood Control Acts of 1948, 1954, 1960, 1962, 1965, and 1968; Authorization in 1970 under Section 201 of the Flood Control Act of 1965, and the Water Resources Development Acts of 1986, 1988, 1990, 1992, 1996, 1999, 2000 and 2007. The Modified Water Deliveries to Everglades National Park was authorized under the Everglades Expansion Act of 1989 (PL 101-229). PL 101-229 specifically directs the Secretary of the Army, in consultation with the Secretary of Interior, to construct modifications to the C&SF Project to improve water deliveries to ENP.

REMAINING BENEFIT – REMAINING COST RATIO: NA

TOTAL BENEFIT - COST RATIO: NA

INITIAL BENEFIT – COST RATIO: NA

BASIS OF BENEFIT – COST RATIO: NA

SUMMARIZED FINANCIAL DATA				ACCUM PCT OF EST FED COST	STATUS (1 Jan 2011)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost (CoE)			\$4,964,106,000		Misc. Completed Works	100	Oct 1992
Programmed Construction	\$4,345,709,000				CERP, Plan and Design	37	TBD
Unprogrammed Construction	618,397,000				West Palm Beach	98	TBD
Estimated Federal Cost (OFA)			379,157,000		C-111 (South Dade)	69	TBD
Programmed Construction	379,157,000				Manatee Pass Gates	99	TBD
Estimated Non-Federal Cost			4,148,393,000		E Coast Canal	100	Sep 2004
Programmed Construction	3,820,077,000				Western C-111	100	Sep 2005
Cash Contributions	\$ 300,546,000				Seminole Big Cypress	70	TBD
Other Costs	3,519,531,000				Ten Mile Creek *	TBD	TBD
Unprogrammed Construction		328,316,000			Tamiami Trail (Western Culverts)	TBD	TBD
Cash Contributions	176,860,000				Florida Keys Carrying	100	Dec 2004
Other Costs	151,456,000				Lake Okeechobee Water Retention	100	Apr 2006
Estimated Unallocated Cost					Southern CREW	TBD	TBD
Programmed Construction					Lake Trafford	TBD	TBD
Total Estimated Programmed Construction Cost			\$8,544,943,000		Kissimmee	70	TBD
Total Estimated Unprogrammed Construction Cost			946,713,000		Mod Waters Del	TBD	TBD
Total Estimated Project Cost			\$9,491,656,000	1/	Picayune Strand **	50	TBD
Allocations to 30 September 2008			1,355,148,000				
Allocations for FY 2009			119,174,000		Entire Project	35	TBD
Allocations for FY 2010			179,630,000				
Recovery Act Allocation To Date			94,111,000				
President's Budget for 2011			180,000,000				
Allocation for FY 2011			TBD				
Allocations through FY 2011			1,928,063,000	39%			
Allocation Requested for FY 2012			162,724,000	42%			
Programmed Balance to Complete after FY 2012			2,254,922,000				
Unprogrammed Balance to Complete after FY 2012			618,397,000				

* Additional construction required.
** COE will initiate construction of ongoing work.

Division: South Atlantic

District: Jacksonville

South Florida Ecosystem Restoration

PHYSICAL DATA

Pumping Plants (Number)	38	Locks (Number)	25
Floodway Control & Diversion Structures (Number)	235	Canals (Miles)	999
Relocations-Highways (Bridges)	2	Levees (Miles)	720
Relocations-Railroads (Bridges)	58	Bridge	7
Canals - New River Channel	9		
Water Control Structures Removal	2		

JUSTIFICATION:

The Central and Southern Florida Project: The C&SF project was originally authorized and designed as a flood control project in response to the maximum flood of record in 1947. Existing damages, without the project, were \$59,693,000 (\$366,903,000 at 1 October 1989 price levels). The 1947 flood frequency averages 1 in 25 years over the project area, with an average duration of 70 days. Minor floods occur almost yearly in the project area and major floods occur frequently. This situation is aggravated by wet antecedent conditions followed by heavy seasonal rainfall. The average degree of protection provided by the completed project is about a 10-year flood frequency protection. Approximately 2,853,700 acres are protected. This encompasses 2,765,100 agricultural acres and 88,600 urban acres. The present value of property subject to flood damages is about \$12.3 billion. Property types include residential, commercial, industrial, public, and agricultural.

Average annual damages without the project would be \$110,580,000 and \$22,536,000 with the project. Damages attributable to urban property are 16.7 percent and 83.3 percent are attributable to rural property. The proportion of average annual damages prevented is 36.8 percent to existing development and 63.2 percent to future development.

Under Public Law 90-483 (River and Harbor Act of 1968), additional project features for the purpose of water supply were added to the Central and Southern Florida project. The storage capacity of the entire project is 2,953,000 average annual acre-feet divided into approximately 1,600,000 acre-feet for urban use by 2020 and 740,000 acre-feet for agricultural use by 2020. The Everglades National Park receives virtually its entire source of water (other than direct rainfall) from the Central and Southern Florida Project. The pumping rate for irrigation of 590 square miles would yield approximately 917,850 acre-feet per year for agricultural use. Recurrent drought conditions with resultant low flows require supplemental irrigation to ensure adequate crop yields.

JUSTIFICATION CONT:

Average annual benefits of the CS&F Project, excluding restoration projects are as follows:

Annual Benefits	Amount
Flood Control	\$ 235,213,000
Municipal and Industrial Water Supply	25,664,000
Agricultural Water Supply	27,614,000
Recreation	11,109,000
Fish and Wildlife	238,000
Area Redevelopment	3,012,000
Total	\$ 302,850,000

Restoration projects in the Central and South Florida Project are being conducted under a variety of authorities. Examples include Picayune Strand, which restores 55,000 acres of wetlands and is a key component to connect state and federal preserve lands for plant and animal species as well as enhancement to adjacent wetland habitats; the Indian River Lagoon South project moderates unnatural salinity changes which cause detrimental effects to estuarine communities; the Site 1 Impoundment Project reduces seepage losses from the natural system and providing habitat improvement, while shifting consumptive water demands off of Loxahatchee National Wildlife Refuge (NWR) and Lake Okeechobee; the West Palm Beach Canal (C-51) project improves the quality of water entering Loxahatchee NWR & Lake Worth Lagoon as well as reducing freshwater pulse flows which adversely affect habitat in Lake Worth Lagoon.

The Modified Water Deliveries to Everglades National Park and C-111 (South Dade) Projects: The Corps is working in stages to restore natural hydrological conditions in Everglades National Park (ENP). Public Law 90-483 and Public Law 101-229 (Everglades National Park Protection and Expansion Act) authorized modifications to the C&SF project for environmental restoration in the C-111 basin and Shark River Slough. The C-111 (South Dade) effort will help restore natural hydrologic conditions in Taylor Slough within Everglades National Park by providing immediate improvement in flow between upper Everglades Marsh (WCA 3a) and ENP which directly improves habitat for endangered species. Modified Water Deliveries will take steps to restore natural hydrological flows to Shark River Slough in the Park. In addition, the Tamiami Trail portion of MWD provides immediate improvement in flow from north across Tamiami Trail (US Hwy 41) to south into ENP which directly improves habitat for endangered species. The Corps will evaluate the success of these projects, and incorporate the lessons learned into implementation efforts conducted under the WRDA 2000 Comprehensive Everglades Restoration Plan (CERP) authority with further steps to improve water deliveries to the park.

Due to a significant increase in the costs of the option selected in November 2005 for the Tamiami Trail (Eastern Segment) feature of the Modified Water Deliveries Project, the Corps completed a Limited Reevaluation Report (LRR) to re-examine prior reports and environmental documentation associated with this feature in an effort to re-evaluate the immediate steps to increase flows of water under the highway and into the Park. The Integrated LRR and Environmental Assessment was approved by the Assistant Secretary of the Army for Civil Works on 1 August 2008. The approved plan provides improved flows under the eastern Tamiami Trail and beginning the restoration of flow into the historic headwaters of the Shark River Slough in northern Everglades National Park.

JUSTIFICATION CONT:

Everglades and South Florida Restoration Project: WRDA 1996 authorized implementation of the Everglades and South Florida Restoration Project in order to provide immediate, independent, and substantial ecosystem restoration, protection and preservation benefits. The authorization permitted implementation of nine projects that were justified on the basis of those benefits. Florida Keys Carrying Capacity Study, East Coast Canal Structure and Western C-11, and Lake Okeechobee Water Retention and Phosphorus Removal projects have been completed. The Ten Mile Creek project, as originally planned, was physically completed in 2006. However, prior to turnover of the project, a determination was made that additional work will need to be performed to allow the project to perform properly. The Seminole Tribe Water Conservation Project located on the Big Cypress Reservation consists of building conveyance canals that will feed newly constructed impoundments. The impoundments function as natural habitats while improving water quality. The water flows from the Big Cypress Reservation and in the Big Cypress National Preserve. Added benefits for the Reservation include storage of irrigation water and reduced flood severity.

Kissimmee River Restoration Project: Local water resource development of the Kissimmee River began in the late 1800's. In the 1960's, the river was channelized as part of the comprehensive Central and Southern Florida Project. Although the project has provided for navigation and reduced flood damages as intended, it also resulted in long-term degradation of the natural ecosystem. The 103-mile river that historically meandered across and inundated about 35,000 acres of wetlands over a broad flood plain was reduced to a 56-mile canal that has successfully contained almost all flows since its completion. The channelization coupled with the modifications of the Lower Basin tributary watersheds and efficient control of floodwaters and regulation of inflows from the Upper Basin significantly altered hydrologic characteristics of the ecosystem. Project formulation and scoping was based on the most cost-effective plan that would meet fish and wildlife resources objectives for restoring ecological integrity. Completion of the project will result in the restoration of 52 miles of river; 27,000 acres of wetlands; improved water quality characteristics for the Kissimmee River; and restored conditions for over 300 fish and wildlife species.

FISCAL YEAR 2011: Fiscal Year 2011 funds for the Kissimmee River Restoration project will be used design/build of the S-69 Weir. Funds will also be used to continue engineering during construction for the enlargement of Canal 37, the CSX Railroad Bridge, Oxbow Excavation and Embankment efforts, Structure 65D Boat Ramp, Structure 69 Weir, and Reach 2 and 3 Oxbow Excavation. Planning, Engineering, and Design will also commence for the Backfilling of Reach 2.

Funding for the Everglades & South Florida program will be used to initiate construction of Basin 4 features of the Seminole Big Cypress project and complete design of Basins 2 and 3. Funds will also be used to initiate a Post Authorization Change (PAC) Report for the Ten Mile Creek project and continue preventative maintenance of the project site.

Funding for the Central and Southern Florida (C&SF) project includes: Comprehensive Everglades Restoration Plan (CERP): completion of Project Implementation Reports on the C-43 Caloosahatchee West Basin Reservoir, the Broward County Water Preserve Area, the Biscayne Bay Coastal Wetlands and the C-111 Spreader Canal projects. CERP funds will also be used to initiate construction of the Picayune Strand Faka pump station; continue construction of the Site 1 Impoundment Phase 1 project; initiate the Indian River Lagoon South C-44 Troup Indiantown construction; continue design/build of the Melaleuca Eradication project; initiate the DECOMP Physical Model; continue design, installation and testing on the ongoing Pilot projects; and continue system wide monitoring. Funding for the remaining C&SF non-CERP projects include installation of trash rakes and culvert repairs for the West Palm Beach Canal.

FISCAL YEAR 2012: The requested amount will be applied as follows:

Central and Southern Florida

Continue Construction on the CERP Picayune Strand	\$ 5,000,000
Continue Construction on the CERP Indian River Lagoon South	18,100,000
Continue Construction on CERP Site 1 Impoundment	1,000,000
Continue Construction on C-111 (South Dade)	9,750,000
Continue Installation and Testing of the Pilot Projects	1,500,000
Complete Construction for Culvert Repairs for West Palm Beach Canal	21,000,000
Engineering and Design for CERP Picayune Strand	4,000,000
Engineering and Design for CERP Indian River Lagoon South	1,000,000
Engineering and Design for CERP Site 1 Impoundment	200,000
Engineering and Design for West Palm Beach Canal	1,000,000
Engineering and Design for C-111 (South Dade)	2,800,000
Engineering and Design for Comprehensive Everglades Restoration Plan (CERP), includes Adaptive Assessment and Monitoring	39,510,000
Construction Management for CERP Picayune Strand	4,614,000
Construction Management for CERP Indian River Lagoon South	1,900,000
Construction Management for CERP Site 1 Impoundment	3,036,000
Construction Management for C-111 (South Dade)	700,000
Construction Management for West Palm Beach Canal	1,000,000
Subtotal	\$ 116,110,000

Kissimmee

Initiate Construction of S-65E Spillway	\$ 15,000,000
Initiate Construction of Reach 3 Backfill	23,000,000
Engineering During Construction	2,614,000
Planning, Engineering, and Design/Monitoring	2,000,000
Construction Management	3,000,000
Subtotal	\$ 45,614,000

Division: South Atlantic

District: Jacksonville

South Florida Ecosystem Restoration

FISCAL YEAR 2012 CONT:

Everglades and South Florida Ecosystem Restoration

Complete Construction Seminole Big Cypress Basins 2 & 3	\$ 1,000,000
Subtotal	\$ 1,000,000
Total	\$162,724,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in specific authorizing legislation and the Water Resources Development Act of 1986, 1996, 2000 and 2007 as applicable, the non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
West Palm Beach Canal		
Provide lands, easements, rights of way, and dredged material disposal areas.	\$ 16,009,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	1,471,000	
Pay 12.8 percent of the separable costs allocated to flood control and bear all costs of operation, maintenance, repair, rehabilitation, and replacement of facilities.	12,720,000	289,800
Total Non-Federal Costs	\$ 30,200,000	\$ 289,800
 C-111 (South Dade)		
Provide lands, easements, rights of way, and dredged material disposal areas.	\$ 118,681,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	419,000	
Pay one-half of the cost of the project assigned to flood control and bear all costs of operation, maintenance, repair, rehabilitation, and replacement of flood control facilities.	76,400,000	845,000
Total Non-Federal Costs	\$ 195,500,000	\$ 845,000

Division: South Atlantic

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South Florida Ecosystem Restoration

NON-FEDERAL COST CONT:

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Manatee Pass-Through Gates Pay applicable percentage based upon authorized cost share for each particular project.	\$ 2,600,000	
Total Non-Federal Costs	\$ 2,600,000	
Comprehensive Everglades Restoration Plan (CERP) Provide lands, easements, rights of way, and dredged material disposal areas.	1,592,273,000	
Pay one-half of the cost of the project assigned to flood control and bear one half of the cost of operation, maintenance, repair, rehabilitation, and replacement of (CERP) facilities.	1,354,064,000	
Total Non-Federal Costs	\$ 2,946,337,000	
Completed C&SF Works Provide lands, easements, rights of way, and modify or relocate buildings, utilities, roads, bridges and other facilities.	\$ 176,459,000	
Cash Contribution/WIK	232,241,000	
Total Non-Federal Costs Total	\$ 408,700,000	
CERP: Site 1 Impoundment Provide lands, easements, rights of way, and modify or relocate buildings, utilities, roads, bridges and other facilities.	\$ 4,187,000	
Cash Contribution/WIK	48,383,000	778,700
Total Non-Federal Costs Total	\$ 52,570,000	\$ 778,700

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South Florida Ecosystem Restoration

NON-FEDERAL COST CONT:

Requirements of Local Cooperation	Payments During Construction, and Reimbursements	Annual Operation, Maintenance, Repair Rehabilitation, and Replacement Costs
CERP: Indian River Lagoon South Provide lands, easements, rights of way, and modify or relocate buildings, utilities, roads, bridges and other facilities.	\$ 150,531,000	
Cash Contribution/WIK	874,078,000	\$ 6,144,700
Total Non-Federal Costs Total	\$ 1,024,609,000	\$ 6,144,700
 CERP: Picayune Strand Provide lands, easements, rights of way, and modify or relocate buildings, utilities, roads, bridges and other facilities.	 \$ 140,471,000	
Cash Contribution/WIK	87,009,000	\$ 310,000
Total Non-Federal Costs Total	\$ 227,480,000	\$ 310,000
 CERP: Melaleuca Eradication Provide lands, easements, rights of way, and modify or relocate buildings, utilities, roads, bridges and other facilities.	 \$ 0	
Cash Contribution/WIK	875,000	\$ 330,000
Total Non-Federal Costs Total	\$ 875,000	\$ 330,000

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South Florida Ecosystem Restoration

NON-FEDERAL COST CONT:

Requirements of Local Cooperation	Payments During Construction, and Reimbursements	Annual Operation, Maintenance, Repair Rehabilitation, and Replacement Costs
East Coast Canal Structures		
Provide; with credit toward the non-Federal 50 percent share of project costs; all lands, easements, rights of way, and excavated or dredged material disposal areas.	\$ 0	
Modify or relocate; with credit toward the non-Federal 50 percent share of project costs; utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	0	
Pay 50 percent of the costs allocated to environmental restoration, and pay all costs of operation, maintenance, repair, rehabilitation, and replacement.	1,796,000	\$ 150,000
Total Non-Federal Costs	\$ 1,796,000	\$ 150,000
Tamiami Trail (Western Culverts)		
Provide; with credit toward the non-Federal 84 percent share of project costs; all lands, easements, rights of way, and excavated or dredged material disposal areas.	\$ 0	
Modify or relocate; with credit toward the non-Federal 84 percent share of project costs; utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	0	
Pay 68 percent of the costs allocated to environmental restoration, and pay all costs of operation, maintenance, repair, rehabilitation, and replacement.	19,326,000	\$ 250,000
Total Non-Federal Costs	\$ 19,326,000	\$ 250,000
Seminole Big Cypress		
Provide; with credit toward the non-Federal 50 percent share of project costs; all lands, easements, rights of way, and excavated or dredged material disposal areas.	\$ 7,500,000	
Modify or relocate; with credit toward the non-Federal 50 percent share of project costs; utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	0	
Pay 50 percent of the costs allocated to environmental restoration, and pay 50% costs of operation, maintenance, repair, rehabilitation, and replacement.	22,500,000	\$ 600,000
Total Non-Federal Costs	\$ 30,000,000	\$ 600,000

Division: South Atlantic

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South Florida Ecosystem Restoration

NON-FEDERAL COST CONT:

Requirements of Local Cooperation	Payments During Construction, and Reimbursements	Annual Operation, Maintenance, Repair Rehabilitation, and Replacement Costs
Florida Keys Carrying Capacity		
Provide; with credit toward the non-Federal 50 percent share of project costs; all lands, easements, rights of way, and excavated or dredged material disposal areas.	\$ 0	
Modify or relocate; with credit toward the non-Federal 50 percent share of project costs; utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	0	
Pay 50 percent of the costs allocated to environmental restoration, and pay all costs of operation, maintenance, repair, rehabilitation, and replacement.	3,000,000	
Total Non-Federal Costs	\$ 3,000,000	
Lake Okeechobee Water retention & Phosphorus Removal		
Provide; with credit toward the non-Federal 50 percent share of project costs; all lands, easements, rights of way, and excavated or dredged material disposal areas.	\$ 3,077,000	
Modify or relocate; with credit toward the non-Federal 50 percent share of project costs; utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	0	
Pay 50 percent of the costs allocated to environmental restoration, and pay all costs of operation, maintenance, repair, rehabilitation, and replacement.	8,120,000	\$ 364,000
Total Non-Federal Costs	\$ 11,197,000	\$ 364,000

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District: Jacksonville

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NON-FEDERAL COST CONT:

Requirements of Local Cooperation	Payments During Construction, and Reimbursements	Annual Operation, Maintenance, Repair Rehabilitation, and Replacement Costs
Southern CREW		
Provide; with credit toward the non-Federal 50 percent share of project costs; all lands, easements, rights of way, and excavated or dredged material disposal areas.	\$ 29,000,000	
Modify or relocate; with credit toward the non-Federal 50 percent share of project costs; utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	0	
Pay 50 percent of the costs allocated to environmental restoration, and pay all costs of operation, maintenance, repair, rehabilitation, and replacement.	4,040,000	\$ 175,000
Total Non-Federal Costs	\$ 33,040,000	\$ 175,000
Lake Trafford		
Provide; with credit toward the non-Federal 95 percent share of project costs; all lands, easements, rights of way, and excavated or dredged material disposal areas.	\$ 1,342,000	
Modify or relocate; with credit toward the non-Federal 95 percent share of project costs; utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	0	
Pay 82 percent of the costs allocated to environmental restoration, and pay all costs of operation, maintenance, repair, rehabilitation, and replacement.	27,099,000	\$ 70,000
Total Non-Federal Costs	\$ 28,441,000	\$ 70,000

OTHER FEDERAL AGENCIES (OFA):

	Payments During Construction, and Reimbursements	Annual Operation, Maintenance, Repair Rehabilitation, and Replacement Costs
Modified Water Deliveries to Everglades National Park Provide; with credit toward Dol's share of the project costs; all lands, easements, rights of way, and excavated or dredged material disposal areas.	\$ 101,409,000	
Pay share of project costs.	224,848,000	
Total OFA Costs	326,257,000	
.		
Kissimmee River		
Provide lands, easements, rights of way, and modify or relocate buildings, utilities, roads, bridges and other facilities.	\$ 318,200,000	
Cash Contribution/WIK	91,400,000	\$ 477,000
Total Non-Federal Costs Total	\$ 409,600,000	\$ 477,000

STATUS OF LOCAL COOPERATION: Assurances of local cooperation have been accepted from the local sponsor, the South Florida Water Management District, for all works authorized under the Central and Southern Florida project. The Project Cooperation Agreement (PCA) for the C-111 (South Dade) separable element was executed with the South Florida Water Management District in January 1995. A PCA amendment is under negotiation with the Sponsor and a Post Authorization Change document is being developed for approval of minor design changes. The Design Agreement for the South Florida Water Management District (SFWMD) segment of the Comprehensive Everglades Restoration Plan (CERP) was signed on 12 May 2000. Additional Design Agreements for CERP features maybe executed with Seminole Tribe of Florida, the Miccosukee Tribe of Florida, the Florida Department of Environmental Protection and Miami-Dade County.

The Kissimmee Project Cooperation Agreement reflects the cost sharing outlined in House Document 102-286 dated April 7, 1992 was executed with the South Florida Water Management District (SFWMD) in March 1994. The local sponsor will be required to provide a cash contribution for project costs in excess of land credit (reflecting credit for lands, easements, rights of way, relocations, and disposal areas).

PCAs were executed 07 January 2000 for East Coast Canal Structures, Tamiami Trail Culverts, Western C-11, Seminole Big Cypress, Southern Crew, Lake Okeechobee Water Retention, 10-Mile Creek, and Lake Trafford. A Feasibility Cost Share Agreement (FCSA) was executed Dec 1998 for Florida Keys Carrying Capacity. Local sponsors include: South Florida Water Management District (SFWMD), Seminole Tribe of Florida, and the Florida Department of Community Affairs (DCA).

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South Florida Ecosystem Restoration

STATUS OF LOCAL COOPERATION CONT:

PCAs were executed with the South Florida Water Management District September 1994 and July 2001 for the Modified Water Deliveries Project to implement modifications to the C&SF Project to improve water deliveries into Everglades National Park. PCA Amendment No. 2 was executed August 2008 for Tamiami Trail Modifications.

The CERP Master Agreement was executed on 13 August 2009 between the Corps and the South Florida Water Management District. A Project Partnering Agreement (PPA) was executed on the CERP: Picayune Strand project in August 2009 with the South Florida Water management District. The CERP Design Agreement was amended on 13 August 2009 to reflect authority to balance cost share of design and construction activities across CERP projects. Four additional PPAs were executed with SFWMD for CERP projects in FY 2010: Melaleuca Eradication and Other Exotic Plants (July), L-31 North Seepage Management Pilot Project (July), Site 1 Impoundment Project – Part 1 (August), and the Indian River Lagoon South Project – Phase 1 (September). Five Pre-Partnership Credit Agreements (PPCA) were executed with the South Florida Water management District in August 2009: Picayune Strand, Indian River Lagoon South, C-43 Caloosahatchee River West Basin Storage Reservoir, C-111 Spreader Canal, and the Biscayne Bay Costal Wetlands projects.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal (Corps cost estimate for the Corps' share of the overall restoration effort) cost estimate of \$4,964,106,000 is an increase of \$84,686,000 from the latest estimate (\$4,879,420,000) submitted to Congress (FY 2011). The changes include the following:

Item	Amount
Price Escalation of Construction Features	\$ 3,931,000
Favorable Bids for Construction Contracts	(48,782,000)
Kissimmee LERRD	84,619,000
West Palm Beach Culvert/Trash Rake Repairs	44,918,000
Total	\$ 84,686,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT:

The latest Programmatic Environmental Impact Statements for Central and Southern Florida project was the Comprehensive Review Study in April 1999. NEPA documents have also been completed for the Indian River Lagoon South, Picayune Strand, Site 1 Impoundment and Melaleuca Eradication projects.

The final Environmental Impact Statement for the Kissimmee project was filed with EPA on April 5, 1992. A supplement to the Environmental Impact Statement was integrated into the Upper Basin project modification report.

NEPA documents were completed prior to execution of the PCA for East Coast Canal Structures, Tamiami Trail Culverts (Western Culverts), Western C-11, Seminole Big Cypress, Southern Crew, Lake Okeechobee Water Retention, 10-Mile Creek, and Lake Trafford.

OTHER INFORMATION: Funds to initiate preconstruction planning and construction on the Central and Southern Florida project were appropriated in FY1950.

Modified Water Deliveries to Everglades National Park Project. The Everglades National Park Protection and Expansion Act, signed 13 December 1989, authorized construction of works required to take steps to improve water deliveries to Shark River Slough in Everglades National Park, construction of flood mitigation works for the residential area in the East Everglades, and acquisition of 107,600 acres of privately owned wetlands in the East Everglades. The Department of the Interior and the State of Florida acquired the lands included in the ENP expansion area and the Secretary of the Army has responsibility for constructing all project modifications. Under the initial implementation plan, funds were appropriated to the National Park Service and transferred to the Corps of Engineers for this purpose. From FY2006 to FY2008, Congress provided funding for this project to both the National Park Service and the Corps of Engineers. All subsequent funding is expected to be provided through NPS appropriations. The construction of the final project components, the Tamiami Trail bridge and roadway raising, was initiated in FY 2010.

The Kissimmee Restoration Project was authorized by the Water Resources Development Act of 1992. The project cooperation agreement was executed in March 1994. Engineering and design and construction are on-going. Construction was initiated in Fiscal Year 1997. A Post Authorization Change is being developed to address increased project costs in upper basin of the Kissimmee River that can be used to support a project reauthorization.

OTHER INFORMATION CONT:

The Water Resources Development Act of 1992 authorizes the Chief of Engineers to review the Central and Southern Florida project to determine whether modifications to the existing project are advisable at the present time due to significantly changed physical, biological, demographic, or economic conditions, with particular reference to modifying the project or its operation for improving the quality of the environment, improving protection of the aquifer, and improving the integrity, capability, and conservation of urban water supplies affected by the project or its operation. The central organizing theme of the Comprehensive Restudy was the restoration of the South Florida ecosystem while accommodating other demands for water and related land resources in south Florida. Recognizing the complexity of ecological restoration and the extensive interaction between the ecosystem and other uses of water and related land resources, oversight of the reconnaissance level study effort was provided by the interagency South Florida Ecosystem Restoration Task Force, which continues to provide policy guidance, interagency coordination, and facilitate appropriate agency participation. The Water Resources Development Act of 1996 (Section 528) required that a Comprehensive Restudy feasibility report be submitted to Congress, along with a Programmatic Environmental Impact Statement, in July 1999. The Final Integrated Feasibility Report and Programmatic Environmental Impact Statement were submitted to Congress on 01 July 1999. The report provided a Comprehensive Everglades Restoration Plan (CERP). Congress authorized this plan in WRDA 2000 as a conceptual framework for modifications and operational changes to the Central & Southern Florida Project, providing specific authorization for 10 projects totaling \$1.1 billion (including \$100 million for adaptive assessment and monitoring programs) and 4 pilot projects totaling \$69 million, and to allow for implementation of projects under a programmatic authority, not to exceed \$206 million. Two additional pilot projects that were part of the Comprehensive Everglades Restoration Plan were authorized in the Water Resources Development Act of 1999 for \$29 million. The Energy and Water Appropriations Act of FY 2000, Public Law 106-50 appropriated the first funds to initiate design of elements of the CERP.

The Water Resources Development Act of 2007 provided authorization for the following three CERP projects: Picayune Strand, Indian River Lagoon South and Site 1 Impoundment. It also provided a new authorized project cost for the Hillsboro and Lake Okeechobee ASR Pilot and the Caloosahatchee ASR Pilot projects; and a provision for the establishment of Section 902 limits for the Programmatic Authority projects.

The Indian River Lagoon South Feasibility Study was initiated in 1996. This study evaluated potential modifications to the Central and South Florida Project for ecological restoration of Indian River Lagoon ecosystem. A final feasibility report, which included components of the CERP, was submitted to HQUSACE in FY02. The Project Implementation Report (PIR), required by WRDA 2000, for Indian River Lagoon South was completed August 2004. A Chief's Report on the PIR was signed 04 August 2004. Construction was authorized in WRDA 2007.

The Picayune Strand Project Implementation Report, which is a component of the Comprehensive Plan, was completed in December 2004. A Chief's Report on the PIR was signed on 15 September 2005. Construction was authorized in WRDA 2007. Construction was initiated with funds provided by the non-Federal sponsor and continues with the COE appropriated funds. Specifically, the local sponsor, South Florida Water Management District, completed construction of some of the road demolition and plugging of the Prairie canals. The Corps will complete the remaining construction of 3 pump stations, road removal and plugging of canals. FY 2009 regularly appropriated and ARRA funds were used to award the first pump station, the Merritt pump station, in October 2009 and it is scheduled for completion in 2013. The second pump station was awarded on November 22, 2010 and is scheduled for completion in three years. Miller Pump station is currently under design and is scheduled to start construction in FY 2013. The area south and west of the project is currently under analysis to determine if flood mitigation features will be necessary to maintain current (year 2000) levels of flood risk. This project involves the restoration of natural flow across roughly 90 square miles in western Collier County, which were drained in the early 1960's. The project will restore wetlands in Picayune Strand (an abandoned real estate development formerly known as Southern Golden Gates Estates) and in adjacent public lands by reducing over drainage while restoring a natural and beneficial sheetflow of water to the Ten Thousand Islands National Wildlife Refuge. Additionally, the project will benefit the endangered Florida panther, and improve wetland/upland mosaic habitat west of the Everglades.

Division: South Atlantic

District: Jacksonville

South Florida Ecosystem Restoration

OTHER INFORMATION CONT:

The Site 1 Impoundment Project Implementation Report, which is a component of the Comprehensive Plan, was completed in August 2006. A Chief's Report on the PIR was signed on 19 December 2006, construction was authorized in WRDA 2007 and the first construction contract was awarded in August 2010 using ARRA funds.

A Project Implementation Report for Broward County WPA, which is a component of the Comprehensive Plan, was completed in April 2007. However the final report was on hold pending a decision on the CERP land valuation policy, which was resolved in August 2009. The final report is being modified to reflect current CERP land valuation guidance and is scheduled to be completed in FY 2011.

The Caloosahatchee River (C-43) West Basin Storage Reservoir Project Implementation Report, which is a component of the Comprehensive Plan, was completed in September 2007. However the final report was on hold pending a decision on the CERP land valuation policy, which was resolved in August 2009. A final report was prepared based on current CERP land valuation guidance and submitted to Headquarters November 17, 2009. The Chief's Report was signed in March 2010 and a Supplemental Chief's Report was signed in January 2011 to clarify cost sharing requirements on recreational features.

The Everglades and South Florida Restoration project authorization limit of a total federal funding of \$75 million was increased to \$95 million in WRDA 2007. It also provided for an increased project Federal funding cap on the Seminole Big Cypress project from \$25 million to \$30 million. The local sponsors have elected, on some projects, to fund more than 50% of project costs to complete those projects.

The Enacted Energy and Water Development Appropriations Act of 2010 included a general provision to increase the Everglades and South Florida Ten Mile Creek federal funding cap by \$3.5 million, an increase from \$25M to \$28.5M, to complete a Post Authorization Change Report (PAC) and continue preventative maintenance. The PAC will evaluate options to address project design deficiencies and identify cost effective remedies. While the PAC is being completed the constructed facility will be maintained in a minimum caretaker status to protect the property for health and safety.

SUMMARIZED FINANCIAL DATA

C&SF Miscellaneous Completed Work

Estimated Federal Cost		934,900,000
Estimated Non-Federal Cost		408,700,000
Cash Contributions	232,241,000	
Other Costs	176,459,000	
Total Estimated Project Cost		\$1,343,600,000

Modified Water Deliveries to Everglades National Park

Estimated Federal Cost (COE)		79,743,000
Programmed Construction	79,743,000	
Unprogrammed Construction	0	
Estimated Federal Cost (OFA)		326,257,000
Programmed Construction	326,257,000	
Unprogrammed Construction	0	
Estimated Non-Federal Cost		156,000
Programmed Construction	156,000	
Unprogrammed Construction	0	
Total Estimated Programmed Construction Cost		\$ 406,156,000
Total Estimated Unprogrammed Construction Cost		0
Total Estimated Project Cost		\$ 406,156,000

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable

TOTAL BENEFIT-COST RATIO: Not applicable

SUMMARIZED FINANCIAL DATA (Continued)

.

SUMMARIZED FINANCIAL DATA (Continued)

C-111 (South Dade)

Estimated Federal Cost			\$ 195,500,000
Programmed Construction		195,500,000	
Unprogrammed Construction		0	
Estimated Non-Federal Cost			195,500,000
Programmed Construction		195,500,000	
Cash Contributions	76,400,000		
Other Costs	119,100,000		
Estimated Non-Federal Cost			
Unprogrammed Construction			0
Cash Contributions	0		
Other Costs	0		
Total Estimated Programmed Construction Cost			\$ 391,000,000
Total Estimated Unprogrammed Construction Cost			0
Total Estimated Project Cost			\$ 391,100,000

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable

TOTAL BENEFIT-COST RATIO: Not applicable

SUMMARIZED FINANCIAL DATA (Continued)

West Palm Beach Canal

Estimated Federal Cost (COE)			\$ 287,200,000
Programmed Construction	287,200,000		
Unprogrammed Construction	0		
Estimated Federal Cost (OFA)			46,000,000
Programmed Construction	46,000,000		
Unprogrammed Construction	0		
Estimated Non-Federal Cost			30,200,000
Programmed Construction	30,200,000		
Cash Contributions	12,720,000		
Other Costs	17,480,000		
Estimated Non-Federal Cost			0
Unprogrammed Construction		0	
Cash Contributions	0		
Other Costs	0		
Total Estimated Programmed Construction Cost			\$ 363,400,000
Total Estimated Unprogrammed Construction Cost			0
Total Estimated Project Cost			\$ 363,400,000

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable

TOTAL BENEFIT-COST RATIO: Not applicable

SUMMARIZED FINANCIAL DATA (Continued)

Manatee Pass-Through Gates

Estimated Federal Cost			\$ 17,400,000
Programmed Construction		17,400,000	
Unprogrammed Construction		0	
Estimated Non-Federal Cost			2,600,000
Programmed Construction		2,600,000	
Cash Contributions	2,600,000		
Other Costs	0		
Estimated Non-Federal Cost			
Unprogrammed Construction		0	
Cash Contributions	0		
Other Costs	0		
Total Estimated Programmed Construction Cost			\$ 20,000,000
Total Estimated Unprogrammed Construction Cost			0
Total Estimated Project Cost			\$ 20,000,000

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable

TOTAL BENEFIT-COST RATIO: Not applicable

SUMMARIZED FINANCIAL DATA (Continued)

Comprehensive Everglades Restoration Plan (CERP)

Estimated Federal Cost		\$ 2,951,563,000
Programmed Construction	2,951,563,000	
Unprogrammed Construction	0	
Estimated Non-Federal Cost		2,946,337,000
Programmed Construction	2,946,337,000	
Cash Contributions	14,872,000	
Other Costs	2,931,465,000	
Estimated Non-Federal Cost		0
Unprogrammed Construction		0
Cash Contributions	0	
Other Costs	0	
Total Estimated Programmed Construction Cost		\$ 5,897,900,000
Total Estimated Unprogrammed Construction Cost		0
Total Estimated Project Cost		\$ 5,897,900,000

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable

TOTAL BENEFIT-COST RATIO: Not applicable

SUMMARIZED FINANCIAL DATA (Continued)

Lake Okeechobee

Estimated Federal Cost		\$ 11,236,000
Estimated Non-Federal Cost		11,197,000
Cash Contributions	5,970,000	
Other Costs	5,227,000	
Total Estimated Project Cost		\$ 22,433,000

Southern CREW

Estimated Federal Cost		\$ 281,000
Estimated Non-Federal Cost	1/	33,040,000
Cash Contributions	3,462,000	
Other Costs	29,578,000	
Total Estimated Project Cost		\$ 33,321,000

East Coast Canal Structures

Estimated Federal Cost		\$ 1,902,000
Estimated Non-Federal Cost		1,796,000
Cash Contributions	1,571,000	
Other Costs	225,000	
Total Estimated Project Cost		\$ 3,698,000

1/ Construction assigned to sponsor due to Federal funding cap on Everglades and South Florida program.

SUMMARIZED FINANCIAL DATA (Continued):

Western C-11 Basin

Estimated Federal Cost		\$ 9,100,000
Estimated Non-Federal Cost		8,992,000
Cash Contributions	8,389,000	
Other Costs	603,000	
Total Estimated Project Cost		\$ 18,092,000

Seminole Big Cypress

Estimated Federal Cost		\$ 30,000,000
Estimated Non-Federal Cost 1/		30,000,000
Cash Contributions	10,119,000	
Other Costs	19,881,000	
Total Estimated Project Cost		\$ 60,000,000

Ten-Mile Creek

Estimated Federal Cost		\$ 28,500,000
Estimated Non-Federal Cost		28,500,000
Cash Contributions	15,305,000	
Other Costs	13,195,000	
Total Estimated Project Cost		\$ 57,000,000

1/ Construction assigned to sponsor due to Federal funding cap on Everglades and South Florida program.

SUMMARIZED FINANCIAL DATA (Continued):

Tamiami Trail (Western Culverts)

Estimated Federal Cost		\$ 6,755,000
Estimated Non-Federal Cost 1/		19,326,000
Cash Contributions	0	
Other Costs	19,326,000	
Total Estimated Project Cost		\$ 26,081,000

Lake Trafford

Estimated Federal Cost		\$ 6,687,000
Estimated Non-Federal Cost 1/		28,441,000
Cash Contributions	0	
Other Costs	28,441,000	
Total Estimated Project Cost		\$ 35,128,000

Keys Carrying Capacity

Estimated Federal Cost		\$ 3,000,000
Estimated Non-Federal Cost		3,000,000
Cash Contributions	1,500,000	
Other Costs	1,500,000	
Total Estimated Project Cost		\$ 6,000,000

1/ Construction assigned to sponsor due to Federal funding cap on Everglades and South Florida program.

SUMMARIZED FINANCIAL DATA (Continued):

Division: South Atlantic

District: Jacksonville

South Florida Ecosystem Restoration

CERP Indian River Lagoon South

Estimated Federal Cost		\$1,024,609,000
Estimated Non-Federal Cost		1,024,609,000
Cash Contributions	150,531,000	
Other Costs	874,078,000	
Total Estimated Project Cost		\$2,049,218,000

REMAINING BENEFIT-REMAINING COST RATIO: N/A

TOTAL BENEFIT-COST RATIO: N/A

CERP Picayune Strand

Estimated Federal Cost		\$ 227,480,000
Estimated Non-Federal Cost		227,480,000
Cash Contributions	87,009,000	
Other Costs	140,471,000	
Total Estimated Project Cost		\$ 454,960,000

REMAINING BENEFIT-REMAINING COST RATIO: N/A

TOTAL BENEFIT-COST RATIO: N/A

SUMMARIZED FINANCIAL DATA (Continued):

CERP Site 1 Impoundment Phase 1

Estimated Federal Cost		\$ 52,570,000
Estimated Non-Federal Cost		52,570,000
Cash Contributions	48,383,000	
Other Costs	4,187,000	
Total Estimated Project Cost		\$ 105,140,000

REMAINING BENEFIT-REMAINING COST RATIO: N/A

TOTAL BENEFIT-COST RATIO: N/A

CERP Melaleuca Eradication

Estimated Federal Cost		\$875,000
Estimated Non-Federal Cost		875,000
Cash Contributions	875,000	
Other Costs	0	
Total Estimated Project Cost		\$ 1,750,000

REMAINING BENEFIT-REMAINING COST RATIO: N/A

TOTAL BENEFIT-COST RATIO: N/A

Division: South Atlantic

District: Jacksonville

South Florida Ecosystem Restoration

SUMMARIZED FINANCIAL DATA (Continued):

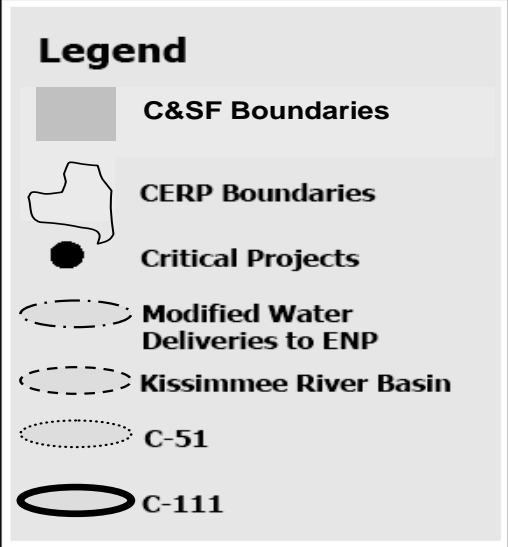
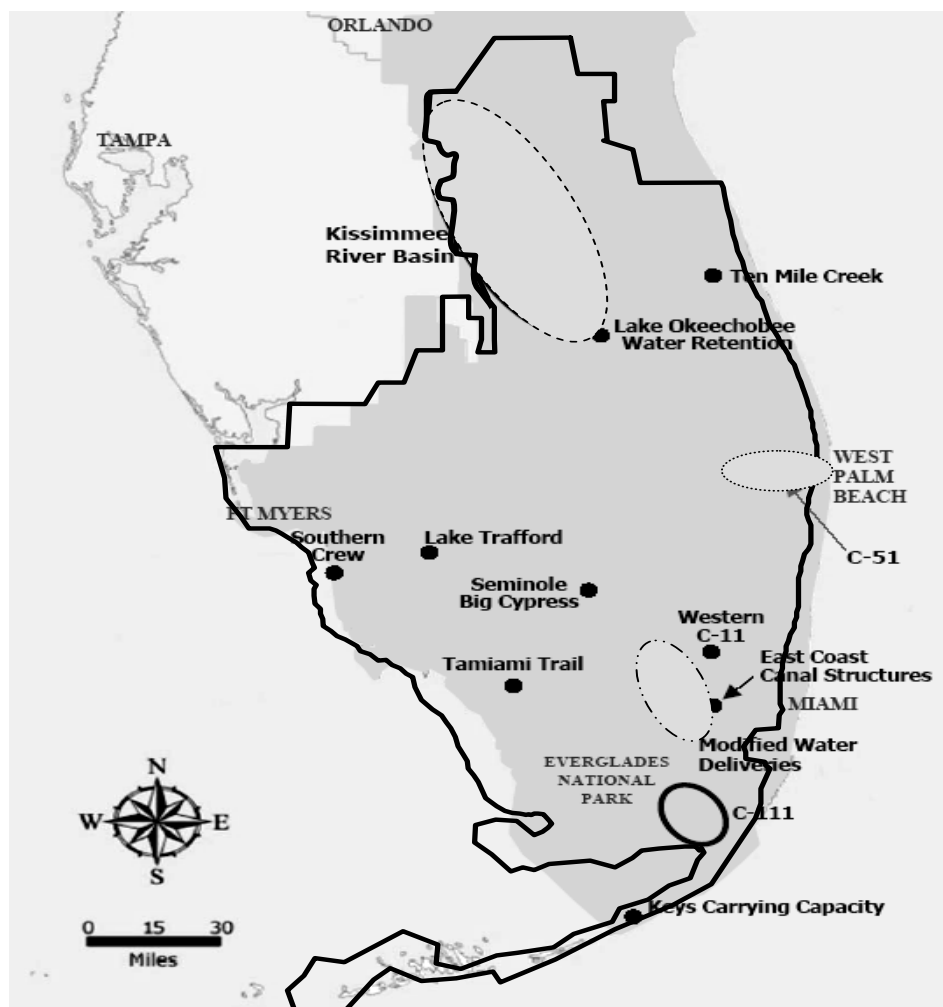
Kissimmee River

Estimated Federal Cost 1/ Programmed Construction		409,700,000	\$ 409,700,000
Unprogrammed Construction		0	
Estimated Non-Federal Cost Programmed Construction		409,600,000	409,600,000
Cash Contributions	91,400,000		
Other Costs	318,200,000		
Estimated Non-Federal Cost Unprogrammed Construction		0	
Cash Contributions	0		
Other Costs	0		
Total Estimated Programmed Construction Cost			\$ 819,300,000
Total Estimated Unprogrammed Construction Cost			0
Total Estimated Project Cost			\$ 819,300,000

1/ Kissimmee project cost shared 50/50. Fed cost includes \$100K for Independent External Peer Review which is included in the total project cost, but is not cost sharable with the local sponsor.

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable

TOTAL BENEFIT-COST RATIO: Not applicable



South Florida Everglades Ecosystem Restoration

HYDROPOWER

CONSTRUCTION

APPROPRIATION TITLE: Construction - Multiple Purpose Power

PROJECT: Richard B. Russell Dam and Lake, Georgia and South Carolina (Continuing)

LOCATION: Richard B. Russell Dam is located on the Savannah River 275.1 miles above its mouth, 29.9 miles below Hartwell Dam, and about 37.4 miles above J. Strom Thurmond Dam (formerly Clark Hill Dam). This is approximately 16 miles southeast of Elberton, Georgia and is located between the existing J. Strom Thurmond and Hartwell Lakes.

DESCRIPTION: The project consists of a concrete gravity-type dam, flanked by earth embankments with a maximum height of 200 feet above the river. The total length of dam is 5,616 feet and consists of a 1,884-foot concrete section and embankments with a total length of 3,732 feet. The gate-controlled spillway has a design capacity of 80,000 c.f.s. The project includes the installation of 328 megawatts of conventional power completed in January 1986 and 320 megawatts of reversible pumped storage power for a total available capacity of 648 megawatts completed in 1992.

AUTHORIZATION: Flood Control Act of 1966, modified by the Water Resources Development Act of 1976 and the Water Resources Development Act of 1986.

REMAINING BENEFIT - REMAINING COST RATIO: 1.90 to 1 at 7 percent

TOTAL BENEFIT - COST RATIO: 1.9 to 1 at 7 percent.

INITIAL BENEFIT - COST RATIO: 2.0 to 1 at 3 1/4 percent (FY 1972).

BASIS OF BENEFIT - COST RATIO: Benefits are from the cost allocation study completed in December 1991 at October 1991 price levels.

Division: South Atlantic

District: Savannah

Richard B. Russell Dam and Lake, GA & SC

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST	STATUS (1 Jan 2011)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Total Appropriation Requirement		\$649,086,249		Entire Project	98.4%	Dec 2016
Future Non-Federal Reimbursement		\$590,583,000				
Estimated Federal Cost (Ultimate)		\$ 56,603,249				
Estimated Non-Federal Cost		\$592,483,000				
Cash Contributions		1,900,000				
Reimbursements		590,583,000				
Power	590,583,000					
Total Estimated Project Cost		\$650,986,249				
Allocations to 30 September 2008		623,150,000				
Allocation for FY 2009		3,544,000				
Allocation for FY 2010		1,554,267				
Recovery Act Allocation To Date		9,137,982				
President's Budget for FY 2011		1,000,000				
Allocation for FY 2011		TBD				
Allocations thru FY 2011		638,386,249	98.4%			
Budget for FY 2012		3,200,000	98.8%			
Programmed Balance to Complete after FY 2012		7,500,000				
Un-programmed Balance to Complete after FY 2012		0				

Division: South Atlantic

District: Savannah

Richard B. Russell Dam and Lake, GA & SC

PHYSICAL DATA

Dam		Relocations-Roads (Miles)	19.5
Type: Concrete Gravity, flanked by earth embankments		Railroads (Miles)	9.1
Maximum Height (Feet)	200	Initial Power Installation	
Length		4 Conventional Units (MW)	82
Concrete Section (Feet)	1,884	4 Pump Storage Units (MW)	80
Embankments (Feet)	3,732	Normal Average Head (Feet)	144
Spillway		Reservoir Capacity (Acre-feet)	
Type: Gate Controlled	80,000	Flood Control	140,000
Design Capacity (c.f.s)		Power	126,800
Lands and Damages (Acres)	53,112	Dead Storage	899,400
Type: Predominantly timber and Agricultural Improvements: Typical farm units			

JUSTIFICATION: The 648 megawatts installation, including pumped storage, will help meet the increased power requirements and rapid growth demands in this region. The output can be marketed and fully utilized immediately upon project completion in Federal Energy Regulatory Commission (FERC) supply areas 21, 22, and 23. This includes all of South Carolina, most of North Carolina, Georgia, Alabama, and parts of Mississippi and Florida. The FERC has stated repeatedly the need for this power source. This project will be an integral unit of the plan for development of the Savannah River Basin for flood control, navigation, power, and allied purposes. The recreational facilities will serve an area within a large zone of influences surrounding the three-lake complex of J. Strom Thurmond, Hartwell, and Richard B. Russell lakes. Average annual benefits are as follows:

Annual Benefits	Amount
Power	\$ 52,995,000
Flood Control	177,000
Recreation	3,597,000
Fish and Wildlife	71,000
Area Redevelopment	4,212,000
Total	\$ 61,052,000

FISCAL YEAR 2011: Fiscal Year 2011 funds are being used to perform limited environmental work that includes striped bass and water quality monitoring. Fiscal Year 2011 funds will also be used to reinitiate installation of the Static Start and Main Circuit Breakers. The previous installation contract was terminated for the convenience of the government due to the required relocation of the breakers from inside the plant to the transformer deck. Installation of the Static Start and Main Circuit Breakers is now scheduled for completion in 2013.

FISCAL YEAR 2012: Fiscal Year 2012 funds will be used to continue the installation of the Static Start and Main Circuit Breakers and initiate the five-year required environmental monitoring with four pump back unit capability.

Main Circuit Breakers & SS Contract	\$2,000,000
Required Environmental Monitoring	1,200,000
Total \$3,200,000	00

NON-FEDERAL COST: In accordance with Public Law 89-72, agreements for recreation development with the States of Georgia and South Carolina have been executed and were approved by the Secretary of the Army on 20 May 1974. The costs allocable to power are reimbursable, and will be reviewed and adjusted, based on construction costs when the project becomes operational.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Capital Cost allocated to power.	\$590,583,000	\$ 3,557,000
Pay, contribute in kind, or repay (repayment not to exceed 50 years) with interest, one-half of the separable costs allocated to recreation.	1,900,000	0
Bear all costs of operation, maintenance, repair, rehabilitation, and replacement of recreation facilities.	0	249,000
Total Non-Federal Costs	\$592,483,000	\$ 3,806,000

STATUS OF LOCAL COOPERATION: The State of Georgia began payments for recreation reimbursements in May 1985. The State of South Carolina began payments in August 1985. Responsibility for repayment of power costs rests with the Southeastern Power Administration pursuant to Federal Laws. HQUSACE is currently evaluating a request from the Georgia Department of Natural Resources to forgo their recreation payments for the next three years.

Division: South Atlantic

District: Savannah

Richard B. Russell Dam and Lake, GA & SC

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal (Corps) costs estimate of \$649,086,249 is an increase of \$6,228,249 from the last time presented to Congress (FY 2011).

Item	Amount	
Design Changes	\$6,228,2	49
Total	\$6,228,2	49

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement (EIS) on conventional installation was submitted to Council on Environmental Quality (CEQ) on 31 May 1974. A supplement on water quality to the final EIS was filed with CEQ in May 1976. The final EIS on pumped storage was filed with the Environmental Protection Agency (EPA) in October 1979. The Supplement on fish and wildlife mitigation to the final EIS was filed with the EPA in December 1981. A supplement to the final EIS on pumped storage was filed in August 1991. A final NEPA document (Environmental Assessment) now based on 4 ½ years of environmental testing is complete. It embodies those technical items that the Corps of Engineers (COE) and South Carolina have reached agreement on, relating to operational measures, construction of an oxygenation (O2) system to improve fish habitat and continued environmental monitoring of a commercial operation. The EA for Pumped Storage was completed in FY 1999 and the FONSI was signed in August 1999.

OTHER INFORMATION: Funds to initiate preconstruction planning were appropriated in FY 1968. Funds to initiate land acquisition were appropriated in FY 1971 and allocated in FY 1972. Initial construction funds were appropriated in FY 1975. An increase cost from FY11 to FY12 is for installation of the Main Circuit Breaker/Static Start System due to design changes.

Pumped Storage was declared commercially available on 1 September 2002 with a favorable decision from U.S. District Court granted 03 May 2002.

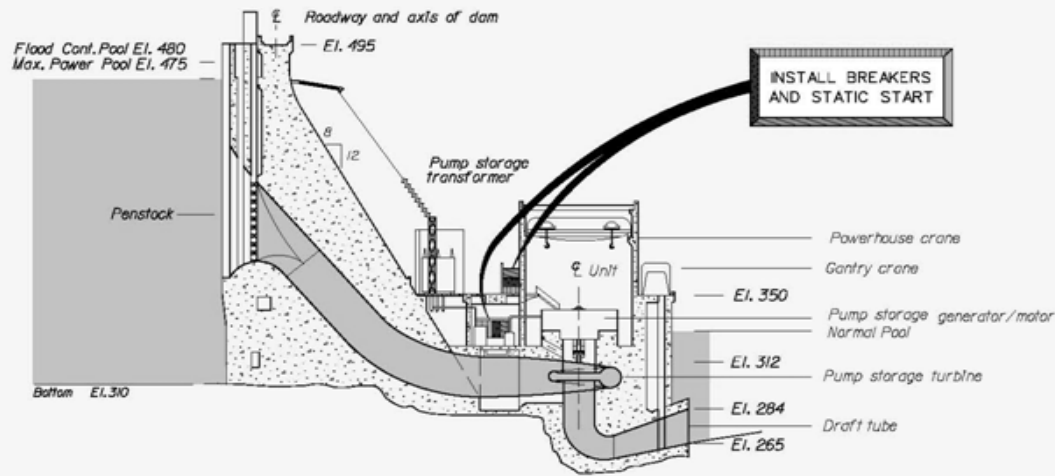
In accordance with the NEPA Decision previously signed in August 1999, the District agreed to construct an oxygenation (O2) system in J. Strom Thurmond (JST) Lake to mitigate the environmental impacts from the potential summer time temperature rise to the striped bass habitat in the tail water regime below Richard B. Russell Dam. This mitigation has to be in place before there can be full use of the 4 Pump-Back units year round. The oxygenation (O2) system is designed to provide for improved fish habitat and it is located near Modoc, S.C. about 5 miles above J. Strom Thurmond (JST) Dam. Also, in accordance with the NEPA document, the Corps is required to continue environmental monitoring for seven years, five of which must be after the oxygenation (O2) system is operational, to cover the year round pump back capability using 4 pump units. The District has agreed to limit pumping to two units from June to September prior to the construction of the oxygenation (O2) system, after that, all 4 pump units will be available during the summer months.

STATUS OF IMPLEMENTATION: The Gilchrist Ferry Access road improvements are necessary to provide safe and dependable transportation for the tanker trucks delivering liquid oxygen to the Cryogenic Oxygenation site in Modoc, South Carolina. This contract was awarded in September 2008 and was completed in April 2010. The above ground oxygenation system (storage tanks, vaporizers, etc.) was awarded in June 2009 and is scheduled to be completed by February 2011. The construction contract for the underwater oxygen diffuser system was awarded in February 2010 and is scheduled for completion in September 2011. The required environmental monitoring will continue for an additional five years after construction completion of the O2 system.

Division: South Atlantic

District: Savannah

Richard B. Russell Dam and Lake, GA & SC



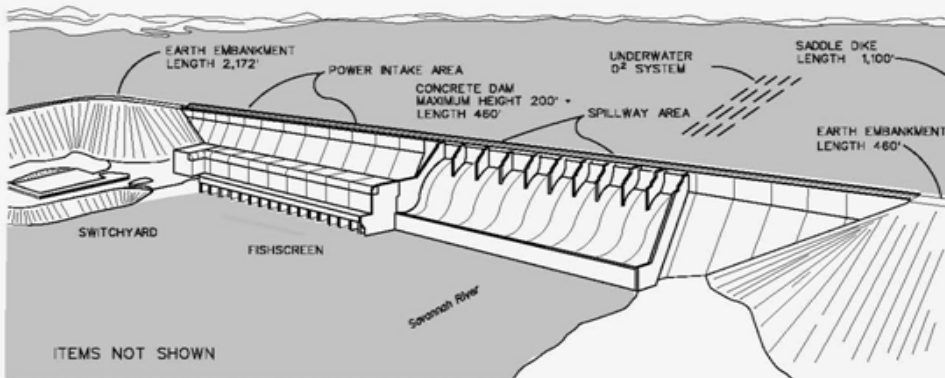
PUMP STORAGE INTAKE AND POWERHOUSE SECTION

40 0 40
SCALE IN MILES



VICINITY MAP

- STATUS OF WORK
- WORK COMPLETED AS OF 30 SEPTEMBER 2010
 - WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2011
 - WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2012
 - WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2012



PERSPECTIVE

ITEMS NOT SHOWN:

INSTALL NEW JST O₂ STORAGE AND DISTRIBUTION SYSTEM-RBR PUMPED STORAGE STORAGE MITIGATION (25 MILES DOWNSTREAM)

CONTINUE ENVIRONMENTAL MONITORING FOR PUMPED STORAGE OPERATION

MULTIPLE PURPOSE PROJECTS INCLUDING POWER
RICHARD B. RUSSELL DAM AND LAKE
GEORGIA AND SOUTH CAROLINA

WORK COMPLETED, IN PROGRESS & PROPOSED

SAVANNAH DISTRICT
SOUTH ATLANTIC DIVISION
10 JANUARY 2011

OPERATION AND MAINTENANCE

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Apalachicola, Chattahoochee and Flint Rivers, GA, AL & FL

AUTHORIZATION: Section 2 of the River and Harbor Act of 1945 and modified by WRDA 1986

LOCATION AND DESCRIPTION: The project is located in southeast Alabama, southwest Georgia and northwest Florida. The project includes a 9 X 100 foot navigation channel in the Apalachicola River in Florida, a 3 X 100 foot channel in the Flint River in Georgia to the City of Bainbridge, and a 9 X 100 foot navigation channel on the Chattahoochee River in Alabama and Georgia to Columbus, Georgia. The project includes George W. Andrews Lock on the Chattahoochee River in Early County, Georgia. Effective and efficient operation of the river system is contingent on adequate funding for Walter F. George L&D and Jim Woodruff L&D.

RECOVERY ACT ALLOCATIONS TO DATE: \$13,200,000

PRESIDENT'S BUDGET FOR FY 2011: \$2,603,000

BUDGET FOR FY 2012: M: \$60,000 **O:** \$578,000 **T:** \$638,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$365,000 – Funds will be used for minimal operations and maintenance of water management structures including the limited operation of the spillway gates, only the most needed project condition surveys, and critical PICES inspection.

FRM: N/A

Rec: \$179,000 - Funds will be used for limited operation and maintenance activities of the recreational facilities to accommodate visitation.

Hydro: N/A

ES: \$94,000 – Funds will be used for the ranger staff and limited management of forestry and wildlife activities, property line surveys, and other cultural and natural resources activities.

WS: N/A

OTHER INFORMATION: This project has been designated as a low-use navigation waterway. There are several threatened and endangered species in the lower part of the system and much controversy on the operation of the system for water quality. Funding for completion of the water control manuals for the ACF basin is included in the total budgeted amount.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Alabama-Coosa Comprehensive Water Study, AL

AUTHORIZATION: FY 1991 Energy and Water Development Appropriations Act

LOCATION AND DESCRIPTION: This project covers the Alabama-Coosa-Tallapoosa (ACT) and Apalachicola-Chattahoochee-Flint (ACF) drainage basins in Alabama, Georgia and Florida. The project was set up years ago to resolve issues related to water allocation issues on the ACT and ACF river basins. This project has been utilized to support the studies, reports, and other activities required to support the potential resolution of the ongoing disputes between the states of Alabama, Georgia and Florida. Numerous lawsuits have been filed and this project is required to support the Corps' litigation efforts.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

PRESIDENT'S BUDGET FOR FY 2011: \$253,000

BUDGET FOR FY 2012: M: \$0 O: \$250,000 T: \$250,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: \$250,000 - Funds will be used for technical support for ongoing litigation issues on the Alabama-Coosa-Tallapoosa and Apalachicola-Chattahoochee-Flint River Systems. Activities include providing input, reviewing and commenting on briefs prepared by Department of Justice, reviewing and commenting on briefs filed by the Plaintiffs, responding to the Freedom of Information Act requests and other correspondence.

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Alabama River Lakes, AL

AUTHORIZATION: River and Harbor Act of 1945

LOCATION AND DESCRIPTION: This multiple purpose project is part of the Alabama-Coosa-Tallapoosa (ACT) River System and includes a 9 X 300 foot navigation channel that extends from the mouth of the Alabama River, some 45 miles north of Mobile, Alabama, for 300 miles northeast to Montgomery, Alabama, where it connects with the Coosa River. The Coosa River extends northeast another 286 miles to a point near Rome, GA. This project includes O&M funding for three projects located on the Alabama River; Alabama-Coosa Rivers (Claiborne Lock and Dam), Millers Ferry Lock and Dam and Robert F. Henry Lock and Dam.

RECOVERY ACT ALLOCATIONS TO DATE: \$34,398,000

PRESIDENT'S BUDGET FOR FY 2011: \$15,745,000

BUDGET FOR FY 2012: M: \$5,886,000 O: \$7,234,000 T: \$13,120,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$1,592,000 - Funds provide caretaker operations for spillway gate regulation to maintain pool at proper levels to prevent flooding and/or head limits at upstream dam.

FRM: \$321,000 - Funds will be used to provide maintenance of the structures and equipment associated with the controlled release and storage of water.

Rec: \$3,000,000 - Funds will be used for operation and maintenance of recreation facilities on Alabama River Lakes including campgrounds, day use parks, fishing decks and boat ramp facilities. This is to maintain a level of service that will ensure safe recreation experiences and clean, orderly facilities.

Hydro: \$7,671,000 - Funds will be used for routine preventative maintenance to meet goals by limiting forced outages and maximizing peak unit availability, to collect water management data, and for dam safety.

ES: \$536,000 - Funds will be used to protect fee-owned lands and waters against encroachments, and loss due to fire, pests and timber theft; to monitor boundary lines; and to respond to real estate requests. Other activities include intensive land maintenance and enhancement for wildlife and cultural resources investigations.

WS: N/A

OTHER INFORMATION: Two hydropower plants on the Project provide a critical contribution to our nation's power grid. Recreation areas and associated economic activity are major contributors to quality of life for the citizens in one of the most economically disadvantaged regions of the United States. Funding for completion of the water control manuals for the ACT basin is included in the total budgeted amount.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Allatoona Lake, GA

AUTHORIZATION: Flood Control Acts of 18 August 1941 and 22 December 1944. Recreation facilities were authorized by Section 4 of the Flood Control Act of 22 December 1944.

LOCATION AND DESCRIPTION: This 37,000 acre multi-purpose flood risk management project is located on the Etowah River, a segment of the Alabama-Coosa-Tallapoosa (ACT) River System, 48 miles above Rome, Georgia. The project includes a dam, hydroelectric powerhouse, gated spillway, a reservoir, 23 Corps of Engineers recreation areas and 54 non-federal recreation areas. The lake supports over 6.5 million visitors per year with over 90 million visitor-hours of recreation annually and is an important source of storage for the Atlanta Metropolitan Area's water supply.

RECOVERY ACT ALLOCATIONS TO DATE: \$9,897,000

PRESIDENT'S BUDGET FOR FY 2011: \$7,008,000

BUDGET FOR FY 2012: M: \$1,712,000 O: \$4,623,000 T: \$6,335,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: \$131,000 - Funds will be used for activities related to the controlled release and storage of water, including the collection of water management data and dam safety activities.

Rec: \$3,371,000 - Funds will be used for the annual operations and maintenance of several recreational areas.

Hydro: \$2,288,000 - Funds will be used for the annual maintenance of the structure and equipment associated with the controlled release and storage of water. Funds will also be used for the collection of water management data and dam safety activities.

ES: \$545,000 - Funds will be used for natural resources management, shoreline management, water quality monitoring; NEPA compliance surveys, etc for meeting the requirements of NEPA Sec. 101.

WS: N/A

OTHER INFORMATION: This is one of Corps of Engineer's most highly visited recreational projects and provides hydropower marketed by the Southwestern Power Administration. Some recreational areas have been closed.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: B. Everett Jordan Dam and Lake, NC

AUTHORIZATION: Flood Control Act of 1965

LOCATION AND DESCRIPTION: The project is located on the Haw River, in central North Carolina, 4.3 miles above its mouth, and 2.5 miles north of Moncure, NC. The project provides flood risk management, recreation and other purposes. The project includes an earth dam 1,330 feet long with a maximum height of 112 feet above the streambed; an uncontrolled, unpaved chute spillway; a controlled 19-foot diameter outlet structure; and saddle dikes just beyond the spillway. The reservoir is operated as a unit of a coordinated system for flood risk management in the Cape Fear River Basin.

RECOVERY ACT ALLOCATIONS TO DATE: \$968,000

PRESIDENT'S BUDGET FOR FY 2011: \$1,918,000

BUDGET FOR FY 2012: M: \$297,000 O: \$1,536,000 T: \$1,833,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

NAV: N/A

FRM: \$1,155,000 provides for critical routine annual operation of dam and associated structures, project administration, vehicles, floating plant, heavy equipment rental, water control management, and yard support and supplies. Also provides for critical routine annual maintenance of dam and structures, required maintenance of intake control tower, electric and hydraulic system, instrumentation, pumps and motors, and shop and maintenance area.

Rec: \$435,000 provides for operation and maintenance of existing recreation facilities to maintain minimum level of service to the visiting public.

Hydro: N/A

ES: \$243,000 provides for critical routine operations to meet minimum mandated and legal requirements including National Environmental Policy Act and mitigation in accordance with the project authorization, in coordination with state managing agencies. Also provides for protection of significant natural and cultural resources and ensures environmental compliance in coordination with state managing agencies.

WS: N/A

OTHER INFORMATION: A non-Federal hydropower facility is currently being constructed at this project and is expected to be in operation by FY 2012.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Biloxi Harbor, MS

AUTHORIZATION: Section 107 of River and Harbor Act of 1960 and River and Harbor Act of 1966

LOCATION AND DESCRIPTION: The high use shallow draft project is located on Biloxi Bay bordering Harrison and Jackson counties, Mississippi. The project consists of a 12 x 150 foot main channel from the Gulf Intracoastal Waterway leading northward to, and including several small commercial channels and turning basins on Mississippi Sound and Biloxi Bay.

RECOVERY ACT ALLOCATIONS TO DATE: \$1,000,000

PRESIDENT'S BUDGET FOR FY 2011: \$1,400,000

BUDGET FOR FY 2012: M: \$0 O: \$25,000 T: \$25,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$25,000 - Funds will be used for water quality certification and endangered species coordination.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: This project is critical for coal shipments for power generating facilities supplying south Mississippi and for commercial fisheries. Also, heavy industrial manufacturing facilities are located on the waterway including industries that often contract with the Corps for construction of lock gates and other large bridge components, etc.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Black Warrior and Tombigbee Rivers, AL

AUTHORIZATION: The project was authorized by various River and Harbor Acts, 1884-1986. Replacement of obsolete structures was authorized by the 1909 River and Harbor Act.

LOCATION AND DESCRIPTION: The project includes a 9 X 200 foot navigation channel from Mobile Harbor, north for 426 miles, connecting the Port of Mobile with the industrial areas of Birmingham, Alabama, and serving as the corridor from the Tennessee-Tombigbee Waterway to the Gulf of Mexico and includes six locks, dams and reservoirs.

RECOVERY ACT ALLOCATIONS TO DATE: \$34,095,000

PRESIDENT'S BUDGET FOR FY 2011: \$20,751,000

BUDGET FOR FY 2012: M: \$10,757,000 O: \$10,672,000 T: \$21,429,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$17,750,000 - Funds will be used for lock maintenance and maintenance dredging activities including surveys, disposal area maintenance, Periodic Inspection and Continuing Evaluation (PICES) and environmental coordination.

FRM: N/A

Rec: \$3,317,000 - Funds will be used for normal operation and maintenance of recreational facilities to accommodate visitation. Funds will also be used for renovations, replacements and upgrades at several recreational areas.

Hydro: N/A

ES: \$362,000 - Funds will be used for salaries, equipment, supplies and material necessary for stewardship at the projects. Funds will also be used for wildlife management of the project lands and natural resources surveys.

WS: N/A

OTHER INFORMATION: This waterway is extremely important for the shipment of coal as an export and to support several coal-fired electric generating plants in the southeastern United States. The waterway also provides critical transportation of crude oil to an oil refinery and transportation of ore and steel for foundries. Recreation areas and associated economic activity are major contributors to quality of life for the citizens in one of the most economically disadvantaged regions of the United States.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Brunswick Harbor, GA

AUTHORIZATION: PL 108-07 WRDA 99

LOCATION AND DESCRIPTION: Brunswick Harbor is a deep-water port with project dimensions of 38 feet deep and 500 feet wide in the bar channel and 36 feet deep and 400 feet wide in the inner channels through St. Simon's Sound, Brunswick River and East River. The inner harbor is maintained through use of Andrews Island, the sole upland disposal area. The inner harbor has two turning basins, one in East River and the other in Turtle River. Terry Creek is an inactive dredged material containment area near Brunswick, Georgia contaminated by toxaphene, on which the Environmental Protection Agency (EPA), Hercules, Inc, and Savannah District are working to resolve concerns over possible environmental impacts. Monthly controlling depth surveys are performed along the entire length of the harbor to monitor harbor sedimentation.

RECOVERY ACT ALLOCATIONS TO DATE: \$6,028,822

PRESIDENT'S BUDGET FOR FY2011: \$6,719,000

BUDGET FOR FY2012: M: \$2,368,000 O: \$632,000 T: \$3,000,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$3,000,000 - Funding provides for minimal routine operation and maintenance for navigation; critical environmental monitoring, critical water quality monitoring, and essential condition surveys. This would also fund the maintenance dredging of the center half of the shipping channel, 250 feet wide in the bar channel and 200 feet wide in the inner channel, to the authorized depth allowing for one-way passage of ships.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Primary commodities transported through Brunswick Harbor are coal, petroleum and its' products, chemicals and related products, crude materials, manufactured goods and equipment, and farm products, totaling about 2.5 million tons annually.

Division: South Atlantic

District: Savannah

Project Name: Brunswick Harbor, GA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Buford Dam and Lake Sidney Lanier, GA

AUTHORIZATION: Section 2 of the River and Harbor Act of 1945, as amended

LOCATION AND DESCRIPTION: The project is located approximately 40 miles north of Atlanta, GA on the Chattahoochee River in Gwinnett, Hall, Dawson, Lumpkin and Forsyth counties. The project includes a hydroelectric powerhouse, a 39,000 acre flood risk management reservoir with 692 miles of shoreline, and 83 recreation facilities. The project is a three-time winner of the Corps "Project of the Year Award", and leads the nation in user fees. Local Chamber of Commerce data shows Lake Lanier has a \$5.5 Billion economic impact. Last year the project totaled over 7.7 million in visitation.

RECOVERY ACT ALLOCATIONS TO DATE: \$7,662,000

PRESIDENT'S BUDGET FOR FY 2011: \$8,840,000

BUDGET FOR FY 2012: M: \$2,105,000 O: \$6,241,000 T: \$8,346,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$41,000 - Funds will be used for operation and maintenance of structures and equipment associated with the controlled release and storage of water and dam safety activities.

FRM: \$531,000 - Funds will be used for operation and maintenance of structures and equipment associated with the controlled release and storage of water and dam safety activities. Approximately \$2B plus of property is located in the floodplain between Buford and Peachtree Creek. The project is essential to the protection of property in the metropolitan Atlanta area.

Rec: \$ 3,472,000 - Funds will be used for operation and maintenance of recreational facilities including campgrounds, day use areas, and boat ramps. This project is one of the most visited Corps of Engineers projects in the United States as well as consistently returning over \$1M in recreation user fee funds annually to the U.S. Treasury. Numerous local businesses and jobs depend on the recreational visitation to the lake for their livelihood.

Hydro: \$ 3,102,000 - Funds will be used for operation and maintenance of structures and equipment associated with the controlled release and storage of water. Routine preventive maintenance is critical for meeting performance goals and providing peaking power with limited forced outages. The capability and reliability is essential in maintaining frequency on the power grid.

ES: \$1,200,000 - Funds will be used for stewardship of fee owned acreage, natural resources management, water quality protection, protection of federally listed threatened and endangered species and an update to the master plan. The Shoreline Management Program is one of the largest in the country with over 10,000 permits issued. Effective management of this program is essential in maintaining a balance between adjacent land owners, public use, and the natural riparian ecosystems around the lake.

WS: N/A

OTHER INFORMATION: This is one of the most highly visited Corps of Engineers projects in the United States, is currently the main source of drinking water for Atlanta Metropolitan area and provides peaking power marketed by the Southeastern Power Administration. This project has high visibility among the public and local, state and federal agencies. Saddle dike 3 has experienced recurring wet spots. A study is necessary to determine needed repairs.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Central & Southern Florida

AUTHORIZATION: Flood Control Acts of 1948, 1954, 1958, 1960, 1962, 1965, 1968, Water Resources Development Act (WRDA) of 1992, 1996, and 2000

LOCATION AND DESCRIPTION: The project, covering an area of some 16,000 square miles, lies generally within the southeasterly 18 counties of Florida. It is comprised of the upper St. Johns River Basin, located in the northeastern section of the project; the Kissimmee River Basin, in the central section above Lake Okeechobee; the Lake Okeechobee-Everglades area in the central and southwestern section; and the East Coast-Everglades in the southeastern section. The project is for flood relief and water conservation and provides principally for: an East Coast Protective Levee extending from the Homestead area north to the eastern shore of Lake Okeechobee near St. Lucie Canal; three conservation areas for water impoundment in the Everglades area west of the East Coast Protective Levee, with control structures to effect transfer of water as necessary; local protection works along the lower east coast; encirclement of the Lake Okeechobee agricultural area by levees and canals; enlargement of portions of Miami, North New River, Hillsboro, and West Palm Beach canals; enlargement of existing Lake Okeechobee levees and construction of new levees on the northeast and northwest shores of the lake; increased outlet capacity for improved control of Lake Okeechobee; floodway channels in the Kissimmee River Basin, with suitable control structures to prevent over drainage; an interrelated system of canals, levees, pumping stations and structures in the southwest Dade County to control water levels; and facilities for regulation of floods in the upper St. Johns River Basin.

RECOVERY ACT ALLOCATIONS TO DATE: \$24,178,629

ALLOCATION FOR FY 2011: \$19,520,000

BUDGET FOR FY 2012: M: \$6,632,000 O: \$8,431,000 T: \$15,063,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$973,000 - Project provides for navigation suitable for commercial and recreational craft, consisting of two locks and the 155 mile long channel along the Okeechobee.

FRM: \$12,354,000 will provide water control and protection from the recurrence of devastating floodwaters from the Everglades and local sources, for the highway-developed urban area along the lower east coast of Florida, and for the productive agricultural areas around Lake Okeechobee (including the towns around the lake), the upper St. Johns, Kissimmee River Basin, and south Dade County. The project includes a total of 89 miles of levees, 954 miles of canals, 30 pumping plants, 192 floodway control and diversion structures, 26 navigation locks, and 57 railroad relocations (bridges).

Rec: \$736,000 will provide operation and maintenance of visitor and recreation facilities serving over two million visitors, at W.P. Franklin Lock and along the waterway as associated with the CSF project. Assets include campgrounds, visitor center, picnic sites, boat ramps, utilities and provision of ranger staff, volunteers, water safety, contract support for repairs, maintenance and mowing in order to promote safe visitor activities associated with the project.

ENR: \$1,000,000 will provide annual water management operation of project features, critical management/maintenance of hydrological and meteorological operations, streamgaging oversight of the entire program, and critical management/maintenance of the U. S. Geological Survey Cooperation Streamgaging Program for use in water management operations. Budget will also provide management of threatened and endangered species, flora and fauna as appropriate, land use management activities, ranger staff, biologists, volunteers and contract support for eradication and control of invasive species.

OTHER INFORMATION: None

Division: South Atlantic

District: Jacksonville

Project Name: Central & Southern Florida

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Canaveral Harbor, FL

AUTHORIZATION: River and Harbor Act 2 March 1945 (PL 79-14) authorized the construction of an entrance channel, jetties, a turning basin enclosed by a dike, and a barge canal with a lock connecting the turning basin with the Intracoastal Waterway from Jacksonville to Miami. River and Harbor Act, (PL 87-874) 23 Oct. 1962, as described in Senate Document No. 140, 87th Congress 2nd Session; "Maintenance by means of a sand transfer plant and conventional dredging of authorized channel depths of 37 feet in the existing entrance channel, 36 feet in the existing inner channel, and 35 feet in the existing turning basin."

LOCATION AND DESCRIPTION: Canaveral Harbor is located in Brevard County on the recurring shore of Cape Canaveral in an area known as the Canaveral Bight. The two nearest deep-water ports are Jacksonville 155 miles north and Ft. Pierce 40 miles south. Project consists of maintenance of an entrance channel 41 feet deep and 400 feet wide; an inner channel 40 feet and 400 feet wide; a 1200 foot diameter turning basin 39 feet deep; a channel 39 feet deep and 400 feet wide for an 1800 foot length; enlargement of barge channel to 12 feet deep and 125 feet wide to the Intracoastal Waterway; a channel extension 31 feet deep by 300 feet wide by 1,500 feet long dredged west of the turning basin; a barge lock 90 feet wide and 600 feet long west of the harbor dike; and two entrance jetties to the 12-foot contour. Length of the project is about 11.5 miles. The entrance channel and part of the inner channel have been deepened to 44 feet for the Navy's Trident Project.

RECOVERY ACT ALLOCATIONS TO DATE: \$1,596,000

PRESIDENT'S BUDGET FOR FY 2011: \$4,715,000

BUDGET FOR FY 012: M: \$3,365,000 O: \$1,785,000 T: \$5,150,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$5,150,000 will be used to advertise and award a contract for maintenance dredging in FY 2012. The contract will require dredging of the most critically shoaled areas with particular emphasis on Cut 1, Cut 1-B, Cut 2, Cut 3, Trident Access Channel and Trident Turning Basin.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Cape Fear River above Wilmington, NC

AUTHORIZATION: River and Harbor Acts of 1910, 1934, 1935, 1937, 1965; and Section 4, Flood Control Act of 1944

LOCATION AND DESCRIPTION: The Cape Fear River above Wilmington project is located in Bladen County in southeastern North Carolina and consists of three federally built and maintained locks and dams. Two of the locks and dams were constructed between 1915 and 1917, while the third was completed in 1935. Today, these locks and dams are in poor structural condition. The locks and dams were constructed to provide a navigable channel for commercial barges from Wilmington to Fayetteville, NC, a distance of about 110 river miles. This project is not currently used by commercial navigation traffic.

RECOVERY ACT ALLOCATIONS TO DATE: \$4,205,807

PRESIDENT'S BUDGET FOR FY 2011: \$2,243,000

BUDGET FOR FY 2012: M: \$49,000 O: \$757,000 T: \$806,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

NAV: \$600,000 provides for caretaker status activities including anadromous fish lockages and related activities to ensure lock operation, periodic inspections, data gathering; and critical maintenance at Lock No.'s 1, 2 & 3.

FRM: N/A

Rec: \$206,000 provides for operation and maintenance of existing recreation facilities to maintain minimum level of service to the visiting public.

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Recovery Act funds are being used to add rock downstream of Lock No. 1 to fill a scour hole. Also, an Initial Appraisal Report, conducted under the authority of Section 216 of the Flood Control Act of 1970, was approved on 2 July 2009. Subsequent detailed studies under this authority would determine if modifications to this project were advisable due to significantly changed physical or economic conditions. Locks Nos. 1&2 are currently rated as dam safety action classification II structures. Non-Federal hydropower add-on license is pending on all three facilities.

Division: South Atlantic District: Wilmington Project Name: Cape Fear River above Wilmington, NC

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Carters Dam and Lake, GA

AUTHORIZATION: Section 2 of the River and Harbor Act of 1945, as amended

LOCATION AND DESCRIPTION: This 8,577 acre project is located on the Coosawattee River, a portion of the Alabama-Coosa-Tallapoosa (ACT) River System, 26.8 miles above the mouth of the river, near Chatsworth, Georgia. The project includes a dam, hydroelectric powerhouse (master plant that also controls Allatoona and Buford), a flood risk management reservoir and 10 recreational areas.

RECOVERY ACT ALLOCATIONS TO DATE: \$11,455,000

PRESIDENT'S BUDGET FOR FY 2011: \$8,136,000

BUDGET FOR FY 2012: M: \$3,009,000 O: \$4,713,000 T: \$7,722,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: \$587,000 - Funds will be used for operation and maintenance of structures and equipment associated with the controlled release and storage of water and for dam safety activities.

Rec: \$1,457,000 - Funds will be used for operation and maintenance of recreational facilities including campgrounds, day use areas, swim beaches, boat launching ramps, and fishing areas.

Hydro: \$5,509,000 - Funds will be used for operation maintenance of structures and equipment associated with the controlled release and storage of water. Routine preventive maintenance is critical for meeting performance goals and providing peaking power with limited forced outages.

ES: \$169,000 - Funds will be used for stewardship of project natural resources, management of wildlife habitat, monitoring and managing forest resources, and monitoring and resolving encroachments.

WS: N/A

OTHER INFORMATION: The Carters project includes a main dam and a reregulation dam. Two of the four generators can be reversed and utilized as pumps. These two units are used to pump water back to the main reservoir during non peaking generation hours for reuse during peaking hours.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Charleston Harbor, SC

AUTHORIZATION: Multiple River and Harbor Acts. Latest authorization is WRDA 96, P.L. 104-303 Section 101

LOCATION AND DESCRIPTION: Charleston Harbor is located about midway along South Carolina's Atlantic coastline. This project consists of maintenance of 44.6 miles of channel, three turning basins, and one anchorage basin. The lower harbor requires dredging every year, entrance channel every other year, and the upper harbor approximately every 16 - 18 months. The material removed from the upper harbor is placed in the Clouter Creek Disposal Area, which is approximately 1,475 acres in size.

RECOVERY ACT ALLOCATIONS TO DATE: \$4,939,880

PRESIDENT'S BUDGET FOR FY 2011: \$9,925,000

BUDGET FOR FY 2012: M: \$13,181,000 O: \$660,000 T: \$13,841,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$13,841,000 provides for dredging of the entrance channel, lower harbor and upper harbor, disposal area maintenance, condition surveys of the channel, real estate needs to resolve encroachments, permit review, and mosquito abatement in the disposal areas. These funds are necessary to maintain and reestablish project depths that have decreased because of shoaling. This will improve navigation performance by increasing the availability of channel to project depth, thereby eliminating the need for light loading or delays awaiting tides to access a strategic terminal. These funds would ensure adequate disposal area capacity is available to contain the material dredged from the channels in the coming years.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Charleston Harbor is listed as one of 16 US strategic ports because of the presence of the Naval Weapons Station, Military Surface Deployment and Distribution Command, Defense Energy Support Center and Army Strategic Logistics Activity Charleston. According to the American Association of Port Authorities it is the 4th busiest container port on the East Coast and provided over 50% of the equipment and material in support of reconstruction efforts in Iraq and Afghanistan. The harbor generates \$48 billion annually for the regional economy, and supports the military as a major power projection platform.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Cooper River, Charleston Harbor, SC

AUTHORIZATION: Section 101 of the River and Harbor Act of 1968 (P.L. 90-483), modified in the Energy and Water Development Appropriations Act, 1992 (P.L. 102-104) and further modified by Section 353, WRDA 99

LOCATION AND DESCRIPTION: The project is located in Charleston and Berkeley Counties. All improvements are in Berkeley County about 45 miles from Charleston. The project includes operation and maintenance of the powerhouse and associated structures and facilities in accordance with our agreement with the SC Public Service Authority (SCPSA). The purpose of the redirection project was to reduce shoaling in Charleston Harbor by diverting most of the Santee River waters above Pinopolis Dam back into the lower Santee River. Also included in the project authorization was the design and construction of a fish lift as a mitigation feature intended to maintain the number of blueback herring entering the Santee-Cooper Lakes.

RECOVERY ACT ALLOCATIONS TO DATE: \$3,705,490

PRESIDENT'S BUDGET FOR FY 2011: \$6,140,000

BUDGET FOR FY 2012: M: \$1,000,000 O: \$4,408,000 T: \$5,408,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$5,408,000 – funding provides for operation of the powerhouse, natural resource management, condition and operation studies/activities, water quality control, powerhouse maintenance, and maintenance of non-recreation building, grounds and utilities. These funds would improve navigation performance by decreasing shoaling in Charleston Harbor, which is downstream of the project.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: This project is, in essence, an extension of the Charleston Harbor project. The project was authorized, constructed, and is operated with one purpose - the reduction of siltation in Charleston Harbor. Prior to redirection, costs for the O&M of Charleston Harbor were threatening the continued viability of the port. That purpose can only be satisfied with the continued operations of the project. Charleston Harbor is listed as one of 16 US strategic ports and is the 4th busiest container port on the East Coast and provided over 50% of the equipment and material in support of reconstruction efforts in Iraq and Afghanistan. The harbor generates \$48 billion annually for the regional economy, and supports the military as a major power projection platform.

Division: South Atlantic District: Charleston Project Name: Cooper River, Charleston Harbor, SC

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: East Fork, Tombigbee River, MS

AUTHORIZATION: Flood Control Acts of 22 June 1936, 28 June 1938 and 18 August 1941

LOCATION AND DESCRIPTION: This 53 mile long flood risk management project is located on the Tombigbee River and its tributaries between the junction of Browns and Mackey's Creeks in Itawamba County, Mississippi to the Monroe County line. This project provides for maintenance of the channel to ensure flood risk management benefits for Itawamba County, conveys water to meet requirements of the US Fish and Wildlife Service for protection of endangered mussels and ensures the ability to provide water supply for the City of Tupelo, averaging 10 million gallons per day.

RECOVERY ACT ALLOCATIONS TO DATE: \$249,000

PRESIDENT'S BUDGET FOR FY 2011: \$220,000

BUDGET FOR FY 2012: M: \$218,000 O: \$40,000 T: \$258,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: \$258,000 - Funds will be used to maintain the East Fork flood risk management project.

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: This project includes overhead clearing and general debris removal from the East Fork of the Tombigbee River and Mackey's Creek in Itawamba County, Mississippi. The clearing and debris removal efforts result in benefits related to flood prevention, municipal water supply and environmental stewardship.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Falls Lake, NC

AUTHORIZATION: Flood Control Act of 1965

LOCATION AND DESCRIPTION: The project is located on the Neuse River about 10 miles north of Raleigh, NC. The project provides flood risk management, recreation and other purposes. The project includes an earth dam which is 1,915 feet long with a maximum height of 95 feet above the streambed. An uncontrolled chute spillway, 100 feet wide, is located in the east abutment. This project is operated as part of a coordinated system for flood risk management in the Neuse River Basin.

RECOVERY ACT ALLOCATIONS TO DATE: \$855,372

PRESIDENT'S BUDGET FOR FY 2011: \$2,042,000

BUDGET FOR FY 2012: M: \$319,000 O: \$1,695,000 T: \$2,014,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

NAV: N/A

FRM: \$1,288,000 provides for critical routine annual operation of dam and associated structures, project administration, vehicles, floating plant, heavy equipment rental, periodic assessment, water control management, and yard support and supplies. Also provides for critical routine annual maintenance of dam and structures, required maintenance of intake control tower, electric and hydraulic system, instrumentation, pumps and motors, and shop and maintenance area.

Rec: \$461,000 provides for operation and maintenance of existing recreation facilities to maintain minimum level of service to the visiting public.

Hydro: N/A

ES: \$265,000 provides for minimum mandated and legal requirements including National Environmental Policy Act and mitigation in accordance with project authorization and state managing agencies. Funding provides for prevention of loss of significant natural and cultural resources, development of a plan and assessment to guide inventory preservation and development of historic resources for the public benefit.

WS: N/A

OTHER INFORMATION: Preliminary permit issued to the city of Raleigh, NC for non-Federal hydropower add-on. Dam is currently rated as a dam safety action classification III structure.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Gulf Intracoastal Waterway, AL

AUTHORIZATION: River and Harbor Act of 1966, as amended and prior acts

LOCATION AND DESCRIPTION: The Mobile District portion of the GIWW extends from the Louisiana/Mississippi state line to Apalachee Bay, Florida, providing a 12 x 150-foot channel from Louisiana to Mobile Bay, Alabama and a 12 x 125-foot channel from Mobile Bay to Apalachee Bay, Florida. The project supports major barge traffic providing the east/west transit route along the northern Gulf Coast for coal, petroleum products, chemicals, wood products and heavy industrial components. This project also supports high-end recreational traffic and waterway tourism industry.

RECOVERY ACT ALLOCATIONS TO DATE: \$600,000

PRESIDENT'S BUDGET FOR FY 2011: \$5,230,000

BUDGET FOR FY 2012: M: \$4,405,000 O: \$930,000 T: \$5,335,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$5,335,000 - Funds will be used for dredging, disposal area maintenance and endangered species and water quality certification compliance activities.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: This project is critical to the national defense, due to the fact that Eglin, Hurlburt, and Tyndall Air Force Bases all receive their jet fuel by way of this waterway. This waterway is critical to the southeast region of the United States in that all the fuel terminals and coal fired power plants along the Gulf Coast receive their shipments by barge.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Gulfport Harbor, MS

AUTHORIZATION: The existing project was authorized by the River and Harbor Act of 1930 and modified by the River and Harbor Acts of 1948 and 1958, Supplemental Appropriations Act 1985 and Section 202 of WRDA 1986.

LOCATION AND DESCRIPTION: The navigation project is located in Gulfport, Mississippi, approximately equidistant between New Orleans, Louisiana and Mobile, Alabama. The project consists of a 38 x 300 feet Bar Channel from the Gulf of Mexico across Ship Island Bar into Mississippi Sound, a 36 x 220 feet Sound Channel leading to the Anchorage Basin proper, and an 8 x 100 feet Branch Channel leading to an adjacent small craft harbor. The project supports major import/exports of poultry products, fruit, wood products, metals and minerals for manufacturing processes.

RECOVERY ACT ALLOCATIONS TO DATE: \$5,485,509

PRESIDENT'S BUDGET FOR FY 2011: \$3,882,000

BUDGET FOR FY 2012: M: \$1,801,000 O: \$0 T: \$1,801,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$1,801,000 - Funds will be used for dredging, condition surveys, tide gauge operations, water quality certification and endangered species coordination.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: This project was widened to full authorized dimensions in FY10. The port has a major expansion in the planning phases.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Hartwell Lake, GA and SC

AUTHORIZATION: Flood Control Act 1950 and 1958; Water Resources Development Act 1976

LOCATION AND DESCRIPTION: The Project is located midway between Atlanta, GA and Charlotte, NC. The dam is a concrete gravity type, 1900 feet long and 204 feet high with a 568-foot controlled spillway. The Project provides 2.8 million acre feet of storage with 1.4 million allocated to hydropower, 293,000 to flood control and 1.1 million acre feet to inactive storage. The project also boasts 962 miles of shoreline, 56,000 acres of water, and 23,500 acres of land.

RECOVERY ACT ALLOCATIONS TO DATE: \$8,693,000

PRESIDENT'S BUDGET FOR FY2011: \$11,501,000

BUDGET FOR FY2012: M: \$2,431,000 O: \$8,118,000 T: \$10,549,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$23,000 - Funding provides for operational support, United States Geological Survey (USGS) Gaging, janitorial service, building and grounds maintenance and utilities.

FRM: \$458,000 - Funding provides routine operation and maintenance (O&M) of the project flood risk management infrastructure. Funding provides for annual operation and maintenance of the Clemson Pumping Station, earthen and concrete dam, spillway and auxillary equipment. Flood Risk Management (FRM) funding provides all Dam Safety instrumentation, engineering analysis and dam failure emergency planning.

Rec: \$4,411,000 - Funding provides routine O&M of the project recreational facilities. Includes funding for O&M Ranger staff, administration, water safety campaign, off site natural resource and real estate professional support. Recreation funding provides for contracts enabling operations, maintenance and law enforcement of 53 campgrounds, day use parks and access areas.

Hydro: \$4,478,000 - Funding provides routine O&M of hydropower function. Includes funding for O&M powerplant staff, administration, field engineering, replacement parts and funding needed to comply with North American Electric Reliability Corporation's (NERC) reliability standards. O&M activities are critical to limiting forced outages to 2%, maximizing peak unit availability, and providing reliable energy to the Southeastern Power Administration's federal power customers.

ES: \$1,083,000 - Funding provides routine O&M of the environmental stewardship aspects of the project. Includes funding for operations staff administering Corps' largest shoreline management program, environmental compliance, fishery and wildlife management.

WS: \$96,000 - Manage three existing water supply agreements, including billing users. Negotiate one new water supply contract. Process an increase and alternate intake for current water supply contract.

OTHER INFORMATION: Lake Hartwell has the largest shoreline management program in the nation with more than 12,000 dock permits. This comprises over 25% of the shoreline permits in the nation. Hartwell is typically one of the most visited projects in the nation (~10M annual visitors). Net generation of electrical energy for FY09 amounted to 189,385 megawatt-hours, returning \$19,347,468 in power revenue to the general treasury.

Division: South Atlantic

District: Savannah

Project Name: Hartwell Lake, GA and SC

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: J. Strom Thurmond Lake, GA and SC

AUTHORIZATION: Flood Control Act of 1944

LOCATION AND DESCRIPTION: The dam is located 22 miles north of Augusta, GA and consists of a 2,282-foot long, 200-foot high concrete section and a controlled spillway 1,096 feet long. It provides a total storage of 2.9 million acre-feet, of which 390,000 acre-feet is for flow regulation to benefit navigation below Augusta and for hydropower. The multi-purpose project's 80,000 acres of land, 70,000 acres of water, and 1,200 miles of shoreline are situated in seven counties within Georgia and South Carolina.

RECOVERY ACT ALLOCATIONS TO DATE: \$11,032,358

PRESIDENT'S BUDGET FOR FY2011: \$10,918,000

BUDGET FOR FY2012: M: \$2,474,000 O: \$7,312,000 T: \$9,786,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$50,000 - Funding provides for routine operation and maintenance (O&M) for navigation and joint cost under navigation business line.

FRM: \$46,000 - Funding provides for instrumentation for Engineering Analysis (seismic, non-seismic, structural) and a bi-annual exercise on Dam Failure Emergency Planning, an after Action Report and Emergency Action Plan update; and Dam Safety Assurance Studies, including updating inundation maps.

Rec: \$3,607,000 - Funding provides routine O&M of the 36 recreational facilities, Ranger staff, administration, water safety campaign, and contracts for O&M and law enforcement in Corps operated areas.

Hydro: \$4,687,000 - Funding provides routine O&M of the hydropower plant. Includes funding for O&M staff, field engineering, replacement parts, dissolved oxygen to mitigate issues associated with pump-back operations and funding needed to comply with North American Electric Reliability Corporation's (NERC) reliability standards. O&M activities are critical to limiting forced outages to 2%, maximizing peak unit availability, and providing reliable energy to the Southeastern Power Administration's federal power customers.

ES: \$1,300,000 - \$808,000 is to manage the project's 150,000 acres of natural resources in accordance with National Environmental Policy Act (NEPA) and Engineering Regulations 1130-2-540 and 405-1-12; \$85,000 to resolve 13 encroachments on Corps-owned property; \$30,000 to conduct cultural clearances; \$52,000 to monitor Best Management Practices and evaluate areas of possible erosion; \$250,000 to manage 40% of the shoreline management program including 2803 shoreline permits along 1200 miles of shoreline; \$14,000 for 50 acres of environmental inspections and endangered species clearances in outgrant areas; \$40,000 for boundary line marking; \$21,000 for treatment of 35 acres of invasive aquatic vegetation.

WS: \$96,000 - Manage 2 existing water supply agreements, including billing users.

OTHER INFORMATION: Thurmond is the largest Corps project (total acres) east of the Mississippi and is one of the ten most visited projects in the nation. Thurmond Power plant has seven 52,000kw units (364,000kw installed capacity) and has one of the highest unit availability rates in the Corps. Power revenue last year (2010) was \$20,990,617.

Division: South Atlantic

District: Savannah

Project Name: J. Strom Thurmond Lake, GA and SC

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Jacksonville Harbor, FL

AUTHORIZATION: River and Harbors Act of 1965 and Section 101(a)(17) of the WRDA of 1999

LOCATION AND DESCRIPTION: The project provides a channel 40 feet deep from ocean to Mile 20, via Dames Point-Fulton Cutoff, thence 34 feet deep to Commodore Point, and thence 30 feet deep to the F.E.C. Railway Bridge at Dames Point Fulton Channel; maintenance of the existing 42- and 40-foot depth entrance channel; widening of channel by 100 feet near Mile 5, by 200 feet near Mile 7 and Chaseville Turn; maintenance of jetties at channel entrance; construction and maintenance of training walls and revetments; a navigation and floodway channel 26 feet deep by 200 feet wide along south side of Commodore Point; and approach and mooring basin 20 feet deep, 1,300 feet long at 20-foot depth contour and 600 feet long at pier head line near Naval Reserve Armory in South Jacksonville, a depth of 24 feet between that depth contour and the pier head line from Hogan Creek to the foot of Laura Street; and a depth of 28 feet to within 60 feet long at pier head line between the foot of Laura Street and St. Elmo W. Acosta (formerly upper state) Bridge. Length of project is about 26.8 miles.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

PRESIDENT'S BUDGET FOR FY 2011: \$5,708,000

BUDGET FOR FY 2012: M: \$6,100,000 O: \$400,000 T: \$6,500,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$6,500,000 provides routine operations and maintenance for navigation at this strategic port. These funds provide for project condition surveys, removal of critical shoals which would improve navigation performance by increasing the availability and reliability of the federal channel, maintenance of training walls and dredge material disposal facilities, and ongoing Dredge Material Management Plans and Ocean Dredge Material Disposal Site studies.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Under existing conditions, harbor pilots have indicated that there are restrictions for vessels drawing more than 34 feet during ebb tide.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Jim Woodruff Lock and Dam, FL, AL & GA

AUTHORIZATION: Section 2 of the River and Harbor Act of 1945, as amended

LOCATION AND DESCRIPTION: The Jim Woodruff L&D project is located at Mile 107.3 on the Apalachicola River at the confluence of the Chattahoochee and Flint Rivers (ACF), about 45 miles northwest of Tallahassee, Florida. The project includes a dam, powerhouse, navigation lock, fixed and gated spillways, 39 recreational areas and a 37,500-acre reservoir with 532 miles of shoreline. The project received over 1.2 million visitors last year. Effective and efficient operation of the project is contingent on adequate funding for the ACF Rivers Project and Walter F. George Lock & Dam.

RECOVERY ACT ALLOCATIONS TO DATE: \$14,015,000

PRESIDENT'S BUDGET FOR FY 2011: \$9,449,000

BUDGET FOR FY 2012: M: \$2,857,000 O: \$5,302,000 T: \$8,159,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$1,573,000 - Funds will be used for critical caretaker operation and maintenance of the lock and spillway.

FRM: N/A

Rec: \$1,457,000 - Funds will be used for operation and maintenance of recreational facilities including campgrounds, day use areas, and boat ramps.

Hydro: \$4,869,000 - Funds will be used for operation maintenance of structures and equipment associated with the controlled release and storage of water. Routine preventive maintenance is critical for meeting performance goals and providing peaking power with limited forced outages.

ES: \$260,000 - Funds will be used for the implementation of the shoreline management plan, the implementation of invasive species management and for the protection of known cultural resource sites. Hydrilla currently covers 16,000 acres of project waters degrading habitats, affecting navigation and operation of the powerhouse and recreation structures.

WS: N/A

OTHER INFORMATION: Lake Seminole is routinely listed as one of the top ten fishing lakes in outdoor magazines.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: John H. Kerr Lake, VA and NC

AUTHORIZATION: Flood Control Act of 1944

LOCATION AND DESCRIPTION: The project is located on the Roanoke River, about 180 river miles above its mouth, in Mecklenburg County, VA and Vance County, NC. The project provides flood risk management, recreation, hydropower, water supply and other purposes. The project includes a concrete gravity dam with wing and saddle dikes on the right and left banks, with a total length of over 4 miles. The reservoir is operated as a unit of a coordinated system of reservoirs in the Roanoke River basin for flood risk management. The power generating capacity of the project is 268,000 megawatts.

RECOVERY ACT ALLOCATIONS TO DATE: \$5,653,000

PRESIDENT'S BUDGET FOR FY 2011: \$11,423,000

BUDGET FOR FY 2012: M: \$3,586,000 O: \$7,043,000 T: \$10,629,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

NAV: N/A

FRM: \$1,213,000 provides for the critical routine maintenance of the flood risk management features of the project to include: water management in conformance to water control plans, dam safety activities, critical routine operations of the dam, Island Creek, and wing dike operations within the reservoir, project maintenance, surveillance of wing dikes and piezometer monitoring, rip-rap maintenance, annual maintenance of the structure, equipment and facilities associated with the storage and release of water.

Rec: \$2,761,000 provides for operation and maintenance of existing recreation facilities to maintain minimum level of service to the visiting public.

Hydro: \$5,596,000 provides critical routine operations and maintenance to limit forced outages and maximize peak unit availability, to ensure compliance with the North American Electric Reliability Corporation reliability standards, and testing activities and equipment and documentation support.

ES: \$1,055,000 provides for operation, management, and conservation of natural resources through implementation of the environmental operating principles, advance natural resource management programs and shoreline management.

WS: \$4,000 provides for coordination with NC and VA officials on water supply releases.

OTHER INFORMATION: Island Creek dam and pumping station located within the project is a dam safety action classification III rated structure.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Manteo (Shallowbag) Bay, NC

AUTHORIZATION: River and Harbor Acts of 1910, 1940, 1950 and 1970; and under Section 107 of the 1960 River and Harbor Act, as amended

LOCATION AND DESCRIPTION: The project is located along the outer banks portion of Dare County, North Carolina, between Oregon Inlet, Roanoke Island and Albemarle Sound. The project provides for a channel 14 feet deep and 400 feet wide from the Atlantic Ocean through Oregon Inlet with channels 12 feet deep by 100 feet wide to Pamlico Sound, Wanchese Harbor, Shallowbag Bay Harbor and Albemarle Sound. Length of all channels within the Manteo (Shallowbag) Bay project is approximately 25 miles.

RECOVERY ACT ALLOCATIONS TO DATE: \$13,093,420

PRESIDENT'S BUDGET FOR FY 2011: \$4,095,000

BUDGET FOR FY 2012: M: \$0 O: \$1,000,000 T: \$1,000,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

NAV: \$1,000,000 provides for project operations activities and hydrographic condition surveys approximately 2 to 3 times per month through Oregon Inlet and the project's interior channels, but no channel maintenance dredging.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: The Council on Environmental Quality (CEQ), NOAA, and the Corps agreed in May 2003 that the proposed jetties on the Oregon Inlet portion of the project would not be constructed and that the channels would be maintained by dredging alone, along with intensive hydrographic surveys providing up-to-date navigation information. Maintenance dredging is essential to support the large commercial fishing fleet (160 vessels with 24 million pounds of seafood landings at an estimated value of \$27 million) and traversing to and from Wanchese, NC. The U. S. Coast Guard utilizes this portion of the project to access the Oregon Inlet Coast Guard Station in support of search and rescue (950 missions through Oregon Inlet since 2000) and homeland security. The Manteo project provides access to designated harbors of refuge, which is essential during adverse weather conditions since the nearest coastal inlets are Ocracoke Inlet, 90 miles to the south, and Norfolk, VA, 65 miles to the north.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Mobile Harbor, AL

AUTHORIZATION: Section 104 of the River and Harbor Act of 3 September 1954 and previous acts. The Theodore Ship Channel was authorized by Section 201 of the 1965 Flood Control Act and modified by Section 112 of WRDA 1976.

LOCATION AND DESCRIPTION: The project is located in Mobile, Alabama. The project provides a 47 x 600 foot channel from the Gulf of Mexico into Mobile Bay, a 45 x 400 foot channel in the Bay to the McDuffie Coal terminal, a 40 x 500 foot channel in the River to the highway bridge, a 25 x 250-500 foot channel leading to and into Chickasaw Creek, and various smaller channels and turning basins for use by commercial, international and domestic marine traffic, including the Theodore Industrial Channel. The port of Mobile supports a major coal import/export facility supplying coal for all the power plants across the northern Gulf Coast as well as petroleum products, wood products, containers, etc.

RECOVERY ACT ALLOCATIONS TO DATE: \$1,050,000

PRESIDENT'S BUDGET FOR FY 2011: \$23,560,000

BUDGET FOR FY 2012: M: \$22,775,000 O: \$585,000 T: \$23,360,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$23,360,000 - Funds will be used for maintenance dredging of the bay channel and river channel. Funds will also be used for disposal area maintenance surveys, water quality and endangered species coordination and operation and maintenance of tide gauges.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Mobile Harbor is the 9th largest port in the U.S. based on data from the Navigation Data Center. The project supports the ship building and repair industries, some with major military contracts, and carries large coal shipments, supplying power plants across the northern Gulf Coast.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Morehead City Harbor, NC

AUTHORIZATION: River and Harbor Act of 1958 and 1970, and Section 101 of the Water Resources Development Act of 1992

LOCATION AND DESCRIPTION: The Morehead City Harbor project consists of approximately 5 miles of channels, which extend from the deep water in the Atlantic Ocean to the North Carolina State Port at Morehead City, in Carteret County, midway along the North Carolina coastline approximately 10 miles northwest of Cape Lookout. The project consists of a 47-foot deep by 450-foot wide entrance channel from the deep water in the Atlantic Ocean to the Beaufort Inlet gorge; a channel 45 feet deep by 400 to 600 feet wide from the gorge of Beaufort Inlet to the east facing berthing facilities of the North Carolina State Ports; and a channel and basin 35 feet deep with varying widths to the south and west facing berthing facilities.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

PRESIDENT'S BUDGET FOR FY 2011: \$3,800,000

BUDGET FOR FY 2012: M: \$5,250,000 O: \$650,000 T: \$5,900,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

NAV: \$5,900,000 provides for project operations and monthly hydrographic surveying; maintenance dredging within the inner harbor with upland disposal and the ocean bar with near-shore or shoreline disposal.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Morehead City Harbor is a deep draft navigation project with 3.4 million commercial tonnage valued at \$925 million annually. Project is a designated strategic port providing military support to Camp LeJeune (Marine Corps) and provides U. S. Coast Guard vessels access to the Coast Guard Base at Ft. Macon. This port supports the North Carolina State Ports Authority (bulk-cargo ships) and NUCOR Steel and PCS Phosphate through connecting channels of the Atlantic Intracoastal Waterway.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Okatibbee Lake, MS

AUTHORIZATION: Flood Control Act of 23 October 1962 (H. Doc 549)

LOCATION AND DESCRIPTION: Okatibbee Lake is located seven miles northwest of Meridian, Mississippi, at mile 37.7 on the Okatibbee Creek. The project includes a dam, a flood risk management reservoir and several recreation areas. Okatibbee Lake Project provides flood risk management for areas in Lauderdale/Clark counties to include cities of Meridian and Enterprise Mississippi.

RECOVERY ACT ALLOCATIONS TO DATE: \$1,955,070

PRESIDENT'S BUDGET FOR FY 2011: \$1,655,000

BUDGET FOR FY 2012: M: \$431,000 O: \$1,174,000 T: \$1,605,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: \$859,000 - Funds will be used for operation of Okatibbee dam, reservoir, buildings, grounds, utilities, roads, bridges and other facilities and equipment.

Rec: \$706,000 - Funds will be used for operation and maintenance of recreational facilities including campgrounds, day use areas, and fishing areas.

Hydro: N/A

ES: \$40,000 - Funds will be for used wildlife and forestry maintenance.

WS: N/A

OTHER INFORMATION:

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Okeechobee Waterway (OWW), FL

AUTHORIZATION: 1945 River and Harbor Act, 1960 River and Harbor Act

LOCATION AND DESCRIPTION: The project provides a 155-mile long channel across the state from Fort Myers to Stuart. Maintained depth ranges from 8 feet to 10 feet. The waterway runs through Lake Okeechobee and consists of the Caloosahatchee River on the west side of the lake and the St. Lucie Canal on the east side. Included in the project are navigation locks at Ortona, Moore Haven, and St. Lucie. Additional locks at W. P. Franklin and Port Mayaca authorized under the Central and Southern Florida Project are also located within the waterway. Each lock also provides recreational facilities for public use year round. The waterway serves navigation, as well as flood control, since release of excess water from Lake Okeechobee can be made into the St. Lucie Canal and the Caloosahatchee River.

RECOVERY ACT ALLOCATIONS TO DATE: \$3,145,036

PRESIDENT'S BUDGET FOR FY 2011: \$2,444,000

BUDGET FOR FY 2012: M: \$196,000 O: \$1,812,000 T: \$2,008,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$972,000 will provide for annual operation and minimal maintenance of St. Lucie, Moore Haven and Ortona locks, including funding for labor, facilities security and contract support. Funding provides for the minimum level of service. The Okeechobee Waterway is a popular and heavily used waterway during normal times. It is primarily used for recreation, but it is also used for commercial navigation, including tug/barge combinations and commercial fishing vessels. The average annual National Economic Development (NED) impact to navigation and recreation of the Okeechobee Waterway is over 22 million dollars.

FRM: N/A

REC: \$649,000 will provide for operation and maintenance of visitor and recreation facilities serving over two million visitors along the waterway as associated with the OWW project. With an annual visitation estimated at approximately 6 million and a net economic development value of over \$55 million annually, the Okeechobee Waterway is a valuable resource to the south Florida area and the nation. The Corps manages 10 recreation areas along the OWW, encompassing 394 acres and offering 122 campsites, 5 boat ramps, 3 visitor centers, one swim beach, 112 miles of trails, 6 reservable picnic shelters, playgrounds, fishing piers, and other amenities. Lake Okeechobee has an excellent reputation for fishing and hosts more than 500 fishing tournaments each year. Visitation in FY08 totaled 6.2 million with \$384,000 in user fee revenues and \$392,000 in volunteer services provided. Current facility conditions average a 4.7 on a scale from 1 to 7 (poor to excellent).

HYD: N/A

ENS: \$387,000 will provide for managing habitat, fire, wildlife, fisheries, aquatic plants, endangered and protected species, as well as controlling encroachments, shoreline management, boundary line surveillance, and cultural resources protection on OWW Project lands and waters. This funding level represents only bare bones (increment 1) funding. The current ES program includes the Okeechobee Waterway, as well as approximately 467,000 lake acres. Priority work includes management of special status species, invasive species control, and shoreline/encroachment management.

WS: N/A

Division: South Atlantic

District: Jacksonville

Project Name: Okeechobee Waterway, FL

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

OTHER INFORMATION: There are currently six special status species with FWS Recovery Plans inhabiting project lands and waters. These include the Florida manatee, Everglades snail kite, Okeechobee gourd, Eastern Indigo snake; Audubon's crested caracara, and the wood stork. Hundreds of acres of OWW project waters and lands are infested with invasive species. Target species for removal include Brazilian pepper, Australian pine, air potato, Melaleuca, water hyacinth, water lettuce, alligator weed, cogon grass, sailfin catfish, fire ant, wild boar, and giant apple snail. The OWW and C&SF projects contain 402 miles of shoreline and 654 miles of boundary. Management of the extensive shoreline of the projects ensures environmental protection, visitor safety, and restoration of shoreline where degradation has occurred through private exclusive use. There are approximately 400 active permits currently.

Division: South Atlantic

District: Jacksonville

Project Name: Okeechobee Waterway, FL

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Palm Beach Harbor, FL

AUTHORIZATION: River and Harbor Act of 1960

LOCATION AND DESCRIPTION: The project is located in Palm Beach County on the lower east coast of Florida. Palm Beach Harbor provides an entrance channel 35 feet deep, 400 feet wide, and 0.8 miles long, merging with an inner channel 33 feet deep, 300 feet wide, and 0.3 miles long, then flaring into a turning basin with a 1,200 foot turning diameter, and jetties on the north and south sides of the inlet. Length of project is about 1.6 miles.

RECOVERY ACT ALLOCATIONS TO DATE: \$4,000,000

PRESIDENT'S BUDGET FOR FY 2011: \$2,510,000

BUDGET FOR FY 2012: M: \$2,650,000 O: \$200,000 T: \$2,850,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$2,850,000 - The contract will require dredging of the most critically shoaled area of the 1.6 mile waterway, with particular emphasis on the entrance channel. Also design efforts for the FY 2012 event will be performed during FY 2011.

With first winter storm, the project will lose three feet or more of channel depth, resulting in significant light loading of foreign and domestic shipments of fresh produce and goods. Federal channel also provides access for fuel oil to South Florida power plants.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Panama City Harbor, FL

AUTHORIZATION: River and Harbor Act of 30 June 1948 and previous acts. Rehabilitation of the jetties was authorized by the Chief of Engineers 6 March 1971.

LOCATION AND DESCRIPTION: Panama City Harbor is located on the northwest coast of Florida. The project consists of 4 channels; an approach channel 450 x 38 feet, an entrance channel 300 x 36 feet, the Watson Bayou Channel 100 x 10 feet and the Grand Lagoon Channel 100 x 8 feet.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

PRESIDENT'S BUDGET FOR FY 2011: \$55,000

BUDGET FOR FY 2012: M: \$2,015,000 O: \$0 T: \$2,015,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$2,015,000 - Funds will be used for dredging the outer channel reaches.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Over 50% of the tonnage entering this port requires the full project depth. The tonnage through this port has expanded dramatically since the project depth was increased in 2004 and has held steady these past few years in spite of the down turn in the economy.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Pascagoula Harbor, MS

AUTHORIZATION: River and Harbor Act 1913, 1915, 1952, 1954, 1958, 1960, 1962 and the Water Resources Development Act of 1986

LOCATION AND DESCRIPTION: The Pascagoula Harbor navigation project is located in Jackson County, MS. The project provides for a 44 x 600 foot channel from the Gulf of Mexico across Ship Island Bar and into Mississippi Sound, a 42 x 350 foot channel in the Sound transitioning to 2 main channels, a 42 x 350 foot channel leading to Bayou Casotte and a 38 x 350 foot channel leading to the Pascagoula River.

RECOVERY ACT ALLOCATIONS TO DATE: \$1,370,000

PRESIDENT'S BUDGET FOR FY 2011: \$5,520,000

BUDGET FOR FY 2012: M: \$5,420,000 O: \$235,000 T: \$5,655,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$5,655,000 - Funds will be used for limited maintenance dredging, condition surveys, water quality and endangered species coordination, and operation and maintenance of tide gauges.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: This project supports a major Gulf refinery (Chevron) and new liquefied natural gas (LNG) plant and numerous major shipbuilding industries. Dredging costs have escalated in recent years.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Philpott Lake, VA and NC

AUTHORIZATION: Flood Control Act of 1944

LOCATION AND DESCRIPTION: The project is located on the Smith River about 45 miles above its junction with the Dan River in Franklin and Henry Counties, VA. The project provides flood risk management, recreation, hydropower, and other purposes. The project includes a concrete gravity dam about 900 feet long with a maximum height of 220 feet. The reservoir is operated as a unit of a coordinated reservoir system for flood risk management in the Roanoke River basin, generation of hydroelectric power, power generating regulation of low-water flow, and for other purposes. The project has an installed capacity of 14,000 kilowatts.

RECOVERY ACT ALLOCATIONS TO DATE: \$4,562,520

PRESIDENT'S BUDGET FOR FY 2011: \$6,396,000

BUDGET FOR FY 2012: M: \$920,000 O: \$3,774,000 T: \$4,694,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

NAV: N/A

FRM: \$631,000 provides for critical routine maintenance for water management in conformance to water control plans and dam safety activities, and equipment and facilities associated with storage and release of water.

Rec: \$1,723,000 provides for operation and maintenance of existing recreation facilities to maintain minimum level of service to the visiting public.

Hydro: \$2,186,000 provides for critical operations and maintenance to maximize peak unit availability while limiting forced outages to ensure compliance with the North American Electric Reliability Corporation reliability standards, and completing transformer installation.

ES: \$154,000 provides for operation, management and conservation of existing vegetation, forests and fish and wildlife.

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Port Everglades Harbor, FL

AUTHORIZATION: River and Harbor Act of 1960

LOCATION AND DESCRIPTION: The Project is located in Broward County on the lower east coast of Florida. The outer part of the entrance channel 45 feet deep by 500 feet wide is 5,100 feet long including a 1,000 foot transition section inside the two jetties. The inner part of the entrance channel is 42 feet deep by 450 feet wide for a length of 4,800 feet through the main turning basin. The main turning basin is 42 feet deep over a rectangular area 1,700 feet by 2,300 feet. The 31-foot deep north turning basin extends 1,100 feet to the north, tapering from 800 to 500 feet at the northern extreme. The south turning basin extends approximately 1,100 feet to the south by 1,260 feet wide, with authorized depths of 31, 36, and 37 feet. The 42-foot deep by 400-foot wide south port channel extends 9,356 feet south from the entrance channel. The turning notch is 42 feet deep by 750 feet by 1,000 feet, adjoining the south port channel from the west approximately 6,500 feet south of the entrance channel. Length of project is about 3.5 miles.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

PRESIDENT'S BUDGET FOR FY 2011: \$0

BUDGET FOR FY 2012: M: \$2,000,000 O: \$000 T: \$2,000,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$2,000,000 - Maintenance dredging contract will be scoped to comply with fiscal year 2012 budget amount. The contract will require dredging of the most critically shoaled area of the waterway, with particular emphasis on the Southport Access Channel.

The June 2009 Report of Channel Conditions by the Corps of Engineers shows shoaling on the east side of the 42-foot channel approaching and adjacent to the Southport Container Terminal. This shoal extends approximately 100 feet into the channel at a 32-foot depth in a channel authorized at 42 feet. The shoaling is having an adverse impact on containership operations and loading by limiting the loaded draft of the larger container vessels already calling at the Southport container terminals or severely restricting transits to narrow high tide windows.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Richard B. Russell Lake, GA and SC

AUTHORIZATION: Flood Control Act of 1950 and 1958; Water Resources Development Act (WRDA) of 1976

LOCATION AND DESCRIPTION: The dam is located on the Savannah River, near Calhoun Falls, SC, and is 59 miles north of Augusta, GA. The dam has a concrete section 1,884 feet long with a maximum height of 195 feet and a controlled spillway 590 feet long. It provides approximately 1.02 million acre-feet of storage of which 126,800 acre-feet are allocated for hydropower; 140,000 for flood control, and 899,400 for inactive storage. There are 542 miles of shoreline, 26,650 acres of water, and 26,500 acres of public land. The Richard B. Russell multi-purpose project is one of only two major hydropower projects in the Corps of Engineers with pump-back capability.

RECOVERY ACT ALLOCATIONS TO DATE: \$14,911,506

PRESIDENT'S BUDGET FOR FY2011: \$9,387,000

BUDGET FOR FY2012: M: \$3,842,000 O: \$3,463,000 T: \$7,305,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: \$277,000 - Funding provides for instrumentation for Engineering Analysis (seismic, non-seismic, structural); a bi-annual exercise on Dam Failure Emergency Planning, an after Action Report and an Emergency Action Plan update.

Rec: \$334,000 - Funding provides routine operations and maintenance for the most critical, time-sensitive, least-cost activities to provide acceptable service levels in recreation areas. Areas would operate on traditional schedules. These funds would maintain positive customer satisfaction levels and provide safe, stable and sustainable facilities for the visiting public.

Hydro: \$5,698,000 - Funding provides routine operation and maintenance of the hydropower plant. Includes funding for operations and maintenance staff, field engineering, replacement parts, dissolved oxygen to mitigate issues associated with pump-back operations and funding needed to comply with North American Electric Reliability Corporation's (NERC) reliability standards. Operation and maintenance activities are critical to limiting forced outages to 2%, maximizing peak unit availability, and providing reliable energy to the Southeastern Power Administration's federal power customers.

ES: \$900,000 - 49,236 acres of mitigation authorized by WRDA 1986. \$339,000 is for mitigation collar lands around Russell and \$336,000 is mitigation payment to Georgia Department of Natural Resources (GADNR); \$83,000 supports mitigation payment to South Carolina Department of Natural Resources (SCDNR); \$142,000 supports trout mitigation payment to SCDNR.

WS: \$96,000 - Funding to manage 8 existing water supply agreements and billing users.

OTHER INFORMATION: In order to support High Priority Performance Goals for hydropower an additional \$2,000,000 for oxygen and \$320,000 for equipment replacement could be utilized.

Division: South Atlantic

District: Savannah

Project Name: Richard B. Russell Lake, GA and SC

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Rollinson Channel, NC

AUTHORIZATION: River and Harbor Act of 1935

LOCATION AND DESCRIPTION: The Rollinson Channel project is located in Dare County just inside Hatteras Inlet, NC. The project provides a 12-foot channel from Pamlico Sound to Hatteras Island and a 10-foot deep channel from Hatteras Island to Hatteras Inlet, both with 100-foot channel widths. This project is used by the North Carolina State Ferry System for ferry transportation to Ocracoke Island, a subsistence harbor with no land-based connection. Ocracoke Island relies on ferry transportation for subsistence supplies.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

PRESIDENT'S BUDGET FOR FY 2011: \$50,000

BUDGET FOR FY 2012: M: \$0 O: \$50,000 T: \$50,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

NAV: \$50,000 provides for environmental monitoring and hydrographic surveying.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: This project supports the following users: North Carolina State Ferry System, commercial fishing vessels and recreational vessels; and the U.S. Coast Guard. The U.S. Coast Guard utilizes this project to perform search and rescue and homeland security missions.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: San Juan Harbor, PR

AUTHORIZATION: WRDA 1996

LOCATION AND DESCRIPTION: This is a federal deep draft navigation project with authorizations dating back to 1917, the most recent for channel deepening in WRDA 1996. San Juan Harbor is located within the San Juan Metropolitan area along the north coast of Puerto Rico. It is the Commonwealth's principle port, handling over 75 percent of the island's non-petroleum waterborne commerce and is the only harbor on the north coast affording protection in all types of weather. Over 13 million tons of commerce now moves through the harbor annually. The project consists of a Bar Channel with depths stepping from 56 to 49 feet, a 40-foot deep Anegado channel, a 40-foot deep Army Terminal Channel, a 39-foot deep Puerto Nuevo Channel, a 34-foot deep Sabana Approach, a 36-foot deep Graving Dock Channel, a 30-foot deep Graving Dock Turning Basin, a 36-foot deep San Antonio Channel, a 30-foot deep extension to the San Antonio Channel, two 30-foot deep Cruise Ship Basins, a 36 foot deep Anchorage Area E, and a 30-foot deep Anchorage Area F. The FY11 maintenance dredging contract consists of the removal of approximately 300,000 cubic yards of shoals located in the following areas: Graving Dock Turning Basin, Anchorage Area E, Anchorage Area F, and the two cruise ship basins.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

PRESIDENT'S BUDGET FOR FY 2011: \$3,700,000

BUDGET FOR FY 2012: M: \$2,600,000 O: \$100,000 T: \$2,700,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$2,700,000 will be used to advertise and award a contract for the next maintenance dredging of the harbor. The contract will require dredging of the most critically shoaled areas with particular emphasis on Army Terminal Channel, Puerto Nuevo Channel, Anchorage Areas E & F, Cruise Ship Basin East & West.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Savannah Harbor, GA

AUTHORIZATION: Water Resource Development Act (WRDA) 92, Sec.101 (10), Oct 31, 1992

LOCATION AND DESCRIPTION: The deep draft navigation project is located Savannah, Georgia and consists of a bar channel 11.5 miles long, 44 feet deep and 600 feet wide, an inner harbor channel 21 miles long, 42 feet deep and 500 feet wide.

RECOVERY ACT ALLOCATIONS TO DATE: \$33,068,446

PRESIDENT'S BUDGET FOR FY2011: \$18,462,000

BUDGET FOR FY2012: M: \$16,002,000 O: \$1,450,000 T: \$17,452,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$17,452,000 - Funding provides for minimal essential operational activities to support maintenance dredging of the shipping channel and basins. It also includes critical environmental monitoring, inspection of tide gates and real estate actions; maintenance dredging of the shipping channel and Kings Island Turning Basin to authorized depths for commercial and military rapid deployment vessels; complete long term mitigation on the Fresh Water Control System in the Savannah Wildlife Refuge.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: The Savannah Harbor project handles the largest number of containers of any port on the South Atlantic coast and is fourth in the nation in import and export of container cargo. Primary commodities transported through Brunswick Harbor are coal, petroleum and its' products, chemicals and related products, crude materials, manufactured goods and equipment, and farm products, totaling about 32.8 million tons annually. The harbor is also the rapid deployment Port of Embarkation for the Army's 3rd Infantry Division and other elements of the 18th Airborne Corps.

Division: South Atlantic

District: Savannah

Project Name: Savannah Harbor, GA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Savannah River below Augusta, GA

AUTHORIZATION: Public Law 70-101

LOCATION AND DESCRIPTION: The project begins at the end of Savannah Harbor (mile 21.31) and continues to river mile 202.6 at Augusta, GA. The New Savannah Bluff Lock and Dam is located 187 river miles above Savannah Harbor, Georgia and is approximately 13 miles downstream of Augusta, Georgia. The structure's original purpose was to provide for passage of commercial navigation on the Savannah River below Augusta Navigation Project. Commercial navigation through the lock ceased in the early 1980s and the lock is only used intermittently by recreational vessels. Since 1987, the City of Augusta, Georgia has operated the lock under a lease agreement with the Corps of Engineers.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

PRESIDENT'S BUDGET FOR FY2011: \$230,000

BUDGET FOR FY2012: M: \$0 O: \$85,000 T: \$85,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$55,000 - Operate the gates on the spillway to regulate water levels, perform one condition survey of the project, and maintain gates on the spillway portion of the Lock and Dam, which are remotely controlled at J. Strom Thurmond Dam.

FRM: \$30,000 - Instrumentation for Engineering Analysis (seismic, non-seismic and structural).

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Silver Lake Harbor, NC

AUTHORIZATION: Rivers and Harbor Act of 1930

LOCATION AND DESCRIPTION: The Silver Lake Harbor project is located in Hyde County just inside of Ocracoke Inlet, NC. The project provides a 12-foot channel from deep water in Pamlico Sound to, and including, an anchorage basin of the same depth in Silver Lake Harbor at Ocracoke, with widths of 150 feet across the Big Foot Slough bar and 60 feet in the entrance channel. Silver Lake Harbor is classified as a subsistence harbor, where supplies and personnel can only be delivered to the island via ferry (i.e. there is no vehicle access).

RECOVERY ACT ALLOCATIONS TO DATE: \$409,079

PRESIDENT'S BUDGET FOR FY 2011: \$150,000

BUDGET FOR FY 2012: M: \$250,000 **O:** \$0 **T:** \$250,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

NAV: \$250,000 provides for minor maintenance dredging within the Silver Lake Harbor channel.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: This project supports the following users: North Carolina Ferry System; commercial fishing vessels and recreational vessels; and the U.S. Coast Guard. The U.S. Coast Guard utilizes this project to perform search and rescue and homeland security missions.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: South Florida Ecosystem Restoration (SFER), Florida

AUTHORIZATION: The Central & Southern Florida project (includes the Comprehensive Everglades Restoration Plan – CERP) was originally authorized for construction under the Flood Control Act of 1948. Subsequent WRDA Authorizations for construction were contained in the Water Resources Development Act 1996 (Public Law 104-303), Section 528 (b)(3); The Water Resources Development Act of 1999, Section 208; WRDA 2007 (Section 6006). Authorization for operation and maintenance was contained in WRDA 2000 (Public Law 106-543), Section 601 (e)(4).

The United States Department of the Interior Modified Water Deliveries to Everglades National Park, Florida (MWD) was authorized under Public Law (P.L.) 101-229 of the 1989 Everglades National Park Protection and Expansion Act. P.L. 108-7 was passed in 2003. P.L. 111-8 was passed in March 2009.

Everglades & South Florida: Seminole Big Cypress Reservation Water Conservation Plan, part of the Critical Projects Program, Florida authorization for construction was contained in the Water Resources Development Act of 1996 (Public Law 104-303), Section 528 (b)(3); the Water Resources Development Act of 1999, Section 208; WRDA 2007 (Section 6006). Authorization for operation and maintenance was contained in WRDA 2000 (Public Law 106-543), Section 601 (e)(4).

LOCATION AND DESCRIPTION: The South Florida Ecosystem Restoration Program stretches from the southern Orlando area southward across the Everglades, the Florida Keys, and the contiguous and near-shore waters of South Florida, and across South Florida from east to west, including portions of the drainage areas of the Indian River Lagoon and the Caloosahatchee River, as well as population centers along the southeast and southwest coasts. The project area is defined by the political boundaries of the Southwest Florida Water Management District, and includes all of the Everglades. It encompasses an area of approximately 18,000 square miles, which includes all or part of 18 counties in the southeast part of the State of Florida. Principle areas are the Kissimmee River Basin, Lake Okeechobee, Everglades Agricultural Area, Upper East Coast, Lower East Coast, Big Cypress Basin, Water Conservation Areas, Everglades National Park, Southwest Florida, Florida Bay and the Florida Keys.

RECOVER ACT ALLOCATIONS TO DATE: \$ 0

ALLOCATION FOR FY 2011: \$4,140,000

BUDGET FOR FY 2012: M: \$4,946,000 O: \$330,000 T: \$5,276,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

ENR: \$5,276,000 will provide annual water management operation of project features, critical management/maintenance of hydrological and meteorological operations, streamgaging oversight of the entire program for use in annual water management operations; O&M for Seminole Big Cypress; Modified Water Deliveries to Everglades National Park; CERP Melaleuca Eradication; and C-111 South Dade projects.

OTHER INFORMATION: None

Division: SAD District: SAJ Project Name: Central & Southern FL Program Management

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Tampa Harbor, FL

AUTHORIZATION: Energy and Water Development Act November 7, 2003, Report No. 108-357

LOCATION AND DESCRIPTION: The total project consists of a channel from the Gulf of Mexico to Port Tampa and Tampa. Project features include the entrance channel from the Gulf of Mexico to Hillsborough Bay. At Hillsborough Bay, the channel splits into two legs, with one continuing west to Port Tampa and the other east to Gadsden Point. The west channel continues to Port Tampa and ends in a turning basin. The west channel to Gadsden Point includes the Alafia River, Port Sutton, East Bay, and Seddon Channels. The project depth varies from 45 feet in the entrance channel at the Egmont Bar Channel to 30 feet in the Alafia River. Length of project is about 67 miles including 3.6 miles in the Alafia River. The Port of Tampa has more cargo tonnage than all other Florida ports combined.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

PRESIDENT'S BUDGET FOR FY 2011: \$5,200,000

BUDGET FOR FY 2012: M: \$5,887,000 O: \$400,000 T: \$6,287,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$6,287,000 - Maintenance dredging contract will be scoped to comply with fiscal year 2012 budget amount. The contract will require dredging of the most critically shoaled areas with particular emphasis on Hillsborough Bay Cut A, Cut C, Cut D & Alafia Channel. These funds would improve navigation performance by increasing the availability and reliability of the channel through maintenance dredging.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None

Division: South Atlantic

District: Jacksonville

Project Name: Tampa Harbor, FL

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Tennessee-Tombigbee Waterway, AL & MS

AUTHORIZATION: River and Harbor Act of 1946

LOCATION AND DESCRIPTION: The project extends from Demopolis, AL to the Tennessee River at the common boundary of Alabama, Mississippi, and Tennessee. The project includes a 234-mile navigation channel varying from 9-12 feet X 300 feet, 10 locks and dams, and numerous recreation areas.

RECOVERY ACT ALLOCATIONS TO DATE: \$49,159,491

PRESIDENT'S BUDGET FOR FY 2011: \$23,767,000

BUDGET FOR FY 2012: M: \$7,521,000 O: \$15,620,000 T: \$23,141,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$17,011,000 - Funds will be used for lock and dam maintenance and operation, Periodic Inspection and Continuing Evaluation (PICES) inspections, maintenance dredging, surveys and maintenance of Supervisory Control and Data Acquisition (SCADA). This waterway serves as an important, high use navigational waterway.

FRM: N/A

Rec: \$4,951,000 - Funds will be used for rehabilitation, repair and maintenance of recreation facilities including campgrounds, day use parks, fishing decks and boat ramp facilities. This is to maintain a level of service that will ensure safe recreation experiences and clean, orderly facilities.

Hydro: N/A

ES: \$1,179,000 - Funds will be used for annual, intensive wildlife management on project lands, water quality monitoring below dams, boundary line surveys and cultural resource management.

WS: N/A

OTHER INFORMATION: Funding supports the operation and maintenance of a 234 mile navigation channel, 7 Class A campgrounds, 3 visitor centers, 1 historical landmark, 40 boat ramps, 9 large public-use areas, 72,500 acres of project wildlife mitigation land, 2 office buildings and 10 locks and dams. Visitation to the project exceeds two million annually. By connecting the Tennessee River to the Tombigbee River, the Waterway provides a shortcut of as much as 650 miles for vessels traveling from inland waterways in Middle America to the Gulf of Mexico.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Tennessee-Tombigbee Waterway Wildlife Mitigation, AL & MS

AUTHORIZATION: Water Resources Development Act 1986, 1992

LOCATION AND DESCRIPTION: The project consists of three major components: (1) acquisition and management of 88,000 acres of separable mitigation lands at specific locations in Alabama and Mississippi; (2) management of an additional 93,000 acres of existing Corps lands at specific locations in Alabama and Mississippi; and (3) implementation of an initial development program on 181,000 acres of lands comprising the Mitigation Program. Most of the mitigation lands are organized into contiguous management units distributed between 10 wildlife management areas (7 in Mississippi and 3 in Alabama). The State wildlife management agencies are responsible for the management of all but 50,000 acres that are managed by the Corps.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

PRESIDENT'S BUDGET FOR FY 2011: \$1,900,000

BUDGET FOR FY 2012: M: \$0 O: \$1,847,000 T: \$1,847,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: N/A

Rec: N/A

Hydro: N/A

ES: \$1,847,000 - Funds will be used to reimburse the states of Mississippi and Alabama for costs incurred for intensive wildlife management as mandated by the Water Resources Development Act 1986.

WS: N/A

OTHER INFORMATION: Funding will support oversight and management by state wildlife agencies in Mississippi and Alabama for a total of ten Wildlife Management Areas (WMA's) – seven WMA's in the state of Mississippi and three WMA's in the state of Alabama. These WMA's promote long-term public access, use, conservation and management of natural resources, particularly wildlife, consistent with the Corps mission mandate for natural resources management.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: W. Kerr Scott Dam and Reservoir, NC

AUTHORIZATION: Flood Control Act of 1946

LOCATION AND DESCRIPTION: The project is located on the Yadkin River about 6 miles upstream from Wilkesboro, NC. The project provides flood risk management, recreation, water supply and other purposes. The project includes a rolled earth-fill dam over 1,700 feet long with a maximum height of 148 feet above the streambed. A spillway is located near the north abutment of the dam in a rock cut.

RECOVERY ACT ALLOCATIONS TO DATE: \$3,602,671

PRESIDENT'S BUDGET FOR FY 2011: \$3,591,000

BUDGET FOR FY 2012: M: \$799,000 O: \$2,650,000 T: \$3,449,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

NAV: N/A

FRM: \$1,228,000 provides for critical routine annual operation of dam and associated structures, project administration, vehicles, floating plant, heavy equipment rental, water control management, and yard support and supplies. Also provides for critical routine annual maintenance of dam and structures, required maintenance of intake control tower, electric and hydraulic system, instrumentation, pumps and motors, and shop and maintenance area.

Rec: \$2,050,000 provides for operation and maintenance of existing recreation facilities to maintain minimum level of service to the visiting public.

Hydro: N/A

ES: \$171,000 provides for compliance with natural resource mandates, in accordance with the operations management plan and administration of the project's shoreline management plan.

WS: N/A

OTHER INFORMATION: Non-Federal hydropower add-on license is pending.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Walter F. George Lock and Dam, AL & GA

AUTHORIZATION: Section 2 of the River and Harbor Act of 1945, as amended

LOCATION AND DESCRIPTION: The project is located at mile 75.2 on the Chattahoochee River, 1.5 miles north of Ft. Gaines, Georgia, in Clay County, Georgia and Henry County, Alabama. The project includes a hydroelectric powerhouse, 28 recreation areas, navigation lock, and 45,000-acre reservoir with 640 miles of shoreline.

RECOVERY ACT ALLOCATIONS TO DATE: \$9,660,000

PRESIDENT'S BUDGET FOR FY 2011: \$8,394,000

BUDGET FOR FY 2012: M: \$2,319,000 O: \$5,425,000 T: \$7,744,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$921,000 - Funds will be used for the annual maintenance of the structure and equipment associated with the control releases of water, dam safety activities and other caretaker status activities.

FRM: N/A

Rec: \$2,616,000 - Funds will be used for the annual operations and maintenance of several recreational areas.

Hydro: \$3,954,000 - Funds will be used for routine preventative maintenance to accomplish the project mission by limiting forced outages and maximizing peak unit availability. This is essential to meeting performance goals, customer satisfaction, and public health and safety requirements.

ES: \$253,000 - Funds will be used for the implementation of the shoreline management program, the forest management program, the wildlife habitat program, and the aquatic weed control program. Funds will also be used for cultural resource activities and the initiation of the update of the master plan.

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: West Point Dam and Lake, GA & AL

AUTHORIZATION: Flood Control Act of 23 October 1963

LOCATION AND DESCRIPTION: The project is located approximately 70 miles southwest of Atlanta, Georgia on the Chattahoochee River in Troup and Heard Counties, Georgia, and Chambers County, Alabama. The project includes a hydroelectric powerhouse, a 26,000-acre flood damage reduction reservoir with over 500 miles of shoreline and 37 recreation facilities.

RECOVERY ACT ALLOCATIONS TO DATE: \$11,055,000

PRESIDENT'S BUDGET FOR FY 2011: \$8,845,000

BUDGET FOR FY 2012: M: \$2,480,000 O: \$5,377,000 T: \$7,857,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$26,000 - Funds will be used for the operation and maintenance of structures and equipment associated with the controlled release and storage of water and dam safety activities.

FRM: \$264,000 - Funds will be used for the operation and maintenance of structures and equipment associated with the controlled release and storage of water and dam safety activities.

Rec: \$3,262,000 - Funds will be used for the operation and maintenance of recreational facilities including campgrounds, day use areas, and boat ramps.

Hydro: \$3,566,000 - Funds will be used for the operation and maintenance of structures and equipment associated with the controlled release and storage of water. Routine preventive maintenance is critical for meeting performance goals and providing peaking power with limited forced outages.

ES: \$739,000 - Funds will be used for environmental stewardship of fee owned acreage, natural resources management, protection of wildlife, and cultural resources activities.

WS: N/A

OTHER INFORMATION: This project is part of the Apalachicola-Chattahoochee-Flint (ACF) river system and has received praise from the public for the recreational opportunities provided at the project and flood risk reduction realized during the heavy rains and floods of 2009.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Wilmington Harbor, NC

AUTHORIZATION: River and Harbor Acts of 1930, 1945, 1950, 1962, 1964; Section 107 of the River and Harbor Act of 1960; WRDA 1986, and WRDA 1996

LOCATION AND DESCRIPTION: The project is located on the southeastern coast of North Carolina in Brunswick and New Hanover counties and provides for a channel 44 feet deep through the Ocean Bar and 42 feet deep to the upper end of the Anchorage Basin at Wilmington. Upstream of this point, the project is 38 feet deep to the Highway 133 bridge; 32 feet deep to the Hilton Bridge over the Northeast Cape Fear River; and 25 feet deep from the Hilton Bridge to a point 1-2/3 miles above. The project also includes a northwestward connecting channel, 12 feet deep, from the Atlantic Intracoastal Waterway at Snow's Cut to the main river channel.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

PRESIDENT'S BUDGET FOR FY 2011: \$12,247,000

BUDGET FOR FY 2012: M: \$11,345,000 O: \$1,100,000 T: \$12,445,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

NAV: \$12,445,000 provides the following maintenance activities: perform Anchorage Basin maintenance dredging with upland disposal to Eagle Island; perform Outer Ocean Bar and Mid-River channel reaches maintenance dredging with non-shoreline quality material disposed in the ocean dredged material disposal site; conduct project condition surveys; debris removal; mosquito control; and to produce plans and specifications for the upcoming FY 2013 maintenance dredging contracts.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Waterborne commerce on this project was 8.4, 7.9 and 6.9 million tons, respectively, for the period 2006-2008. The Port of Wilmington handled 204,896 loaded containers in 2008, 194,608 in 2009 and 250,048 in 2010. Project users include Transportation Command, Military Ocean Terminal Sunny Point (MOTSU); North Carolina State Ports Authority; and the U.S. Coast Guard Cutter, DILIGENCE.

South Pacific Division

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Justification of Estimate

Flood Risk Management

Investigations

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2009 \$	Allocation FY 2009 \$	Allocation FY 2010 \$	President's Budget FY 2011 \$	Tentative Allocation FY 2012 \$	Additional to Complete After FY 2012 \$
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PRECONSTRUCTION ENGINEERING AND DESIGN (PED) ACTIVITIES – CONTINUING (Flood and Coastal Storm Damage Reduction)

Berryessa Creek, CA Sacramento District - GRR San Francisco District - PED	9,063,000	3,583,000 1/	138,000	389,346	500,000 2/	500,000 2/	3,952,654
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1/ Includes \$2,502,000 in Construction appropriations.

2/ Of the \$500,000 included in the FY 11 President's Budget for PED, \$200,000 is required to continue the General Reevaluation Report (GRR). Remaining \$300,000 will be carried over to Fiscal Year 2012 (\$189,654 for GRR; \$110,346 for PED).

The Berryessa Creek watershed is located in Santa Clara County, California, south of San Francisco Bay. Berryessa Creek is a tributary to the Coyote Creek system, which flows into the southernmost end of San Francisco Bay. Berryessa Creek flows west out of the Diablo Range and into the residential neighborhoods of San Jose and Milpitas, finally turning north through industrial portions of Milpitas before joining Lower Penitencia Creek, and then into Coyote Creek. The Coyote Creek element of the Coyote and Berryessa Creeks Project was physically complete in April 1997. The Berryessa Creek element consists of approximately 4 miles of channel improvements and upgrades to existing berms for flood risk management in a densely populated and industrialized area within the cities of Milpitas and San Jose. Recent flood events were in 1982, 1983, and 1998, with the 1998 event resulting in significant property damage. The project was authorized for construction in the early 1990s but due to changing environmental needs, the sponsor's environmental concerns and local input, the authorized plan was deemed unacceptable. In coordination with Resource Agencies, a General Reevaluation Report/Environmental Impact Statement is being prepared for the Berryessa Creek element, which will include an updated cost estimate. The intent of the redesign is to be within the current authorization. The Santa Clara Valley Water District, the local sponsor, signed the Reevaluation Cost Sharing Agreement in June 2001 and the General Reevaluation Report was initiated. The Santa Clara Valley Water District, the local sponsor, understands the cost-sharing requirements during preconstruction, engineering and design and is prepared to execute a cost-sharing agreement in July 2012. Preconstruction engineering and design will ultimately be cost shared at the rate for the project to be constructed but will be financed through the preconstruction engineering and design period at 25 percent non-Federal. Any adjustments that may be necessary to bring the non-Federal contribution in line with the project cost sharing will be accomplished in the first year of construction.

Total Estimated General Reevaluation Report	\$9,000,000	Total Estimated Preconstruction Engineering and Design Costs	\$6,084,000
Federal Share	4,500,000	Initial Federal Share	4,563,000
Non-Federal Share	4,500,000	Initial Non-Federal Share	1,521,000

APPROPRIATION TITLE: Investigations, Fiscal Year 2012

Division: South Pacific

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2009 \$	Allocation FY 2009 \$	Allocation FY 2010 \$	President's Budget FY 2011 \$	Tentative Allocation FY 2012 \$	Additional to Complete After FY 2012 \$
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The project is authorized for construction by Section 101(b) of the Water Resources Development Act of 1990 and Section 2855 of the National Defense Authorization Act for FY 1994. Fiscal Year 2011 funds are being used to continue the General Reevaluation Report/Environmental Impact Statement. Carryover Fiscal Year 2011 funds and funds requested for Fiscal Year 2012 will be used to complete the General Reevaluation Report and initiate the preconstruction

PRECONSTRUCTION ENGINEERING AND DESIGN (PED) ACTIVITIES – CONTINUING (Flood and Coastal Storm Damage Reduction)

Berryessa Creek, CA	9,063,000	3,583,000 1/	138,000	389,346	500,000 2/	500,000 2/	3,952,654
Sacramento District - GRR							
San Francisco District - PED							

1/ Includes \$2,502,000 in Construction appropriations.

2/ Of the \$500,000 included in the FY 11 President's Budget for PED, \$200,000 is required to continue the General Reevaluation Report (GRR). Remaining \$300,000 will be carried over to Fiscal Year 2012 (\$189,654 for GRR; \$110,346 for PED).

engineering and design phase, which includes the design of the Calaveras Bridge. At completion of the General Reevaluation Report, the study will be transferred from the Sacramento District to the San Francisco District. Preconstruction, engineering and design phase will be completed by the San Francisco District. The preconstruction engineering and design phase completion date is being determined.

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2009 \$	Allocation FY 2009 \$	Allocation FY 2010 \$	President's Budget FY 2011 \$	Tentative Allocation FY 2012 \$	Additional to Complete After FY 2012 \$
SURVEYS – CONTINUING (Flood and Coastal Storm Damage Reduction)							
California Coastal Sediment Master Plan, CA Los Angeles District	7,300,000	1,640,000	822,000	762,000	900,000	900,000	2,276,000

The study area encompasses the entire California coastline, including the near shore ocean environment and the coastal watersheds. California has approximately 1,100 miles of coastline, 86% of this valuable resource is actively eroding due to natural and human induced alteration in the sediments cycle. Navigation and shoreline structures, along with implementation of water control projects, have contributed significantly in affecting total yield and movement of sediments to and along the coast. The purpose of the study is to develop a comprehensive plan for the management, restoration, protection, and preservation of the sediment resources along the coast of California. The study will evaluate regional alternatives for reducing damages from coastal storms; increasing the natural sediment supply to the coast through dam removal and other means; restoring aquatic ecosystems; and identifying potential sources of sediment, such as material dredged from ports and harbors. The Master Plan will provide Federal and non-Federal entities with an adaptive, programmatic road map to plan and program potential future coastal resources projects. The Master Plan will allow these entities to develop water resources projects within a system-oriented context where data can be easily shared and technical expertise and tools can be efficiently directed to solve coastal resources problems on a regional basis. A Geographic Information System (GIS) -based decision support system for economic optimization will be developed to assist Federal, State, and local decision makers in identifying, ranking, and selecting projects for program investment that would yield significant regional benefits, relative to costs. Ultimately, the Master Plan will allow for minimizing the number of discrete water resources projects by regionalizing solutions that holistically address individual problem areas. Any subsequent regionalized projects recommended in the Master Plan will be considered in collaboration with other Federal and non-Federal agencies, including USEPA, California State Resources Agency, NOAA, regional and local governments, and USGS. The Feasibility Cost Sharing Agreement was signed in September 2005.

Fiscal Year 2011 are being used to continue the feasibility phase of the study, develop a web-based mapping system, continue building the GIS database and decision support applications, develop additional Regional Sediment Management Plans, including environmental documents to support these plans, incorporate state-led efforts and analysis started in Fiscal Year 2006, and hold State-wide multiple public involvement meetings. Funds requested for Fiscal Year 2012 will be used to continue execution of Regional Sediment Management Plans and Technical Tools for remaining regions. The estimated cost of the feasibility phase is \$14,000,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Up to 100 percent of the non-Federal costs may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	\$14,200,000
Reconnaissance Phase (Federal)	200,000
Feasibility Phase (Federal)	7,100,000 1/

APPROPRIATION TITLE: Investigations, Fiscal Year 2012

Division: South Pacific

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2009 \$	Allocation FY 2009 \$	Allocation FY 2010 \$	President's Budget FY 2011 \$	Tentative Allocation FY 2012 \$	Additional to Complete After FY 2012 \$
Feasibility Phase (Non-Federal)		6,900,000					
1/ Includes \$200,000 for mandatory Independent External Peer Review at full Federal expense.							
SURVEYS – CONTINUING (Flood and Coastal Storm Damage Reduction)							
California Coastal Sediment Master Plan, CA Los Angeles District	7,300,000	1,640,000	822,000	762,000	900,000	900,000	2,276,000

The reconnaissance phase was completed in February 2005. The feasibility study completion date is being determined.

APPROPRIATION TITLE: Investigations, Fiscal Year 2012

Division: South Pacific

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2009 \$	Allocation FY 2009 \$	Allocation FY 2010 \$	President's Budget FY 2011 \$	Tentative Allocation FY 2012 \$	Additional to Complete After FY 2012 \$
SURVEYS – CONTINUING (Flood and Coastal Storm Damage Reduction)							
Central Valley Integrated Flood Management Study, CA Sacramento District	2,250,000 1/	0	806,000	314,000	0	300,000	830,000
1/ Feasibility costs are being updated as part of the new study.							

The State of California has expressed interest in developing a Central Valley Flood Protection Plan for the Central Valley of California. Local, state, and federal water resource agencies support a coordinated multi-objective investigation to balance flood damage prevention, environmental restoration, and other water resource purposes within the Central Valley. The plan will include the Sacramento River Basin, San Joaquin River Basin and the Delta. Numerous projects are within the study including the Sacramento River Flood Control Project, Sacramento River Bank Protection Project, Chico Landing to Red Bluff Project, and the Lower San Joaquin River and Tributaries Project. The Central Valley Flood Protection Plan will build on and incorporate existing and past studies, tools and data sets in the development of the comprehensive plan. The backbone of this plan will be the Sacramento-San Joaquin River Basins Comprehensive Study which was initiated in February 1998 and formally endorsed by the State of California, the local sponsor, in December 2002, and formed the basis for the Hamilton City project and several reconnaissance studies. A preliminary Feasibility Cost Sharing Agreement was executed in July 2010 and an amendment is scheduled for execution late Fiscal Year 2011.

Fiscal Year 2010 carryover funds are being used to develop a detailed Project Management Plan and updated study costs and sign an amendment to the Feasibility Cost Sharing Agreement. Funds requested for Fiscal Year 2012 will be used to continue the feasibility phase towards development of a new watershed master plan as required by California State Law, Senate Bill 5 (2007). Efforts will include preparation and award of various data collection contracts for hydraulics, geotechnical borings, levee evaluations, environmental, and real estate parcel identifications; data analysis; and preparation of a preliminary report.

The estimated cost for the study is \$4,500,000 which is to be cost shared on a 50-50 percent basis by Federal and non-Federal interests. Up to 100 percent of the non-Federal costs may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	\$4,500,000
Feasibility Phase (Federal)	2,250,000
Feasibility Phase (Non-Federal)	2,250,000

The feasibility study completion date is being determined.

APPROPRIATION TITLE: Investigations, Fiscal Year 2012

Division: South Pacific

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2009 \$	Allocation FY 2009 \$	Allocation FY 2010 \$	President's Budget FY 2011 \$	Tentative Allocation FY 2012 \$	Additional to Complete After FY 2012 \$
SURVEYS – CONTINUING (Flood and Coastal Storm Damage Reduction)							
Encinitas-Solana Beach Shoreline, CA Los Angeles District	3,595,000	2,587,000	263,000	305,000	307,000	133,000	0

The study area is located on the Southern California Coast, about 15 miles north of San Diego Harbor. The protective beaches have been severely eroded, exposing backshore development, to wave attack, shoreline erosion and undermining. In addition, lagoons and embankments located along the coast are being plugged by littoral transport reducing tidal exchange and degrading ecological systems. The study will investigate shoreline erosion along the 8-mile stretch of beach from the mouth of the Batiquitos Lagoon to the southern boundary of Solana Beach. Under conditions, severe land loss would occur, public safety and infrastructure would be threatened and significant emergency protection costs would accrue. The reduced beach results in severely degraded recreational opportunities along the shoreline. The erosion causes undercutting of coastal bluffs, which will collapse with time and create a serious public hazard, as there are structures located on the bluff top. There is also public and agency concern of migrating sand covering reef habitat. The City of Solana Beach and City of Encinitas, the local sponsors, signed the Feasibility Cost Sharing Agreement in July 2001.

Fiscal Year 2011 funds are being used to complete the sea level rise analysis, coastal engineering, environmental, and economic studies for the revised draft Feasibility Report. Funds requested for Fiscal Year 2012 will be used to complete the feasibility study. The estimated cost of the feasibility phase is \$6,804,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Up to 100 percent of the non-Federal costs may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	\$6,997,000
Reconnaissance Phase (Federal)	98,000
Feasibility Phase (Federal)	3,497,000 1/
Feasibility Phase (Non-Federal)	3,402,000

1/ Includes \$95,000 for mandatory Independent External Peer Review at 100 percent Federal expense.

The reconnaissance phase was completed in July 2001. The feasibility study is scheduled for completion in September 2012.

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2009 \$	Allocation FY 2009 \$	Allocation FY 2010 \$	President's Budget FY 2011 \$	Tentative Allocation FY 2012 \$	Additional to Complete After FY 2012 \$
SURVEYS – CONTINUING (Flood and Coastal Storm Damage Reduction)							
Sacramento-San Joaquin Delta, Delta Islands & Levees, CA Sacramento District	6,140,000	2,026,000	641,000	394,000	468,000	1,015,000	1,596,000

The study area is located in Sacramento, San Joaquin, Solano, Contra Costa, Alameda, and Yolo counties, California and extends from Sacramento south to the cities of Stockton and Tracy, and west to and including Suisun Bay. The Sacramento-San Joaquin Delta consists of about 740,000 acres of land segregated into some 80 tracts and islands and 1,100 miles of levees. Delta levees protect 500,000 inhabitants and protect the water supply of 25,000,000 Californians. This study will develop the long-term strategy for Corps projects in the Delta region. The study will assess existing and future flood risks in the Delta, as well as opportunities for ecosystem restoration, water supply and recreation needs, and develop a comprehensive roadmap for Corps involvement in a wide range of water resources issues. The State of California, the local sponsor, signed the Feasibility Cost Sharing Agreement in May 2006.

Fiscal Year 2011 funds are being used to conduct environmental compliance (National Environmental Policy Act) scoping meetings and develop preliminary alternative plans. Funds requested for Fiscal Year 2012 will be used to continue the feasibility study, to include assessment and comparison of alternative plans, which will become part of the Federal decision document. The estimated cost of the feasibility phase is \$12,000,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Up to 100 percent of the non-Federal costs may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	\$12,140,000
Reconnaissance Phase (Federal)	140,000
Feasibility Phase (Federal)	6,000,000
Feasibility Phase (Non-Federal)	6,000,000

The reconnaissance phase was completed in May 2006. The feasibility study completion is being determined.

APPROPRIATION TITLE: Investigations, Fiscal Year 2012

Division: South Pacific

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2009 \$	Allocation FY 2009 \$	Allocation FY 2010 \$	President's Budget FY 2011 \$	Tentative Allocation FY 2012 \$	Additional to Complete After FY 2012 \$
SURVEYS – CONTINUING (Flood and Coastal Storm Damage Reduction)							
Sutter Basin, CA Sacramento District	4,336,000	2,186,000	669,000	628,000	339,000	339,000	175,000

The study area is located within the boundaries of the Sacramento River Flood Control Project in Sutter and Butte Counties, California and includes the Sacramento, Feather and Bear Rivers, and the Sutter Bypass. Results from levee evaluation studies on the Sacramento Urban Area, Marysville/Yuba City, Mid-Valley, Lower and Upper Sacramento Area levee reconstruction projects indicate that structural problems caused by on-going seepage exist. The Corps is addressing levee reconstruction under these projects. The Sutter County reconnaissance study addressed levee improvements beyond reconstruction in these areas and investigated new areas for flood prevention. January 1997 floods caused seepage and boils resulting in levee breaks. The levees were stabilized by constructing stability berms and placement of relief wells under emergency construction authority. The State of California, the local sponsor, signed the Feasibility Cost Sharing Agreement in March 2000. The State of California Reclamation Board was reformed by the State Legislature as the Central Valley Flood Protection Board in October 2007. A new Sutter-Butte Flood Control Agency was formed by county and municipal governments and special districts in December 2007. As a result, the Project Management Plan was further modified to clearly include the southern Butte County portion of the Sutter Basin within the scope of the feasibility study including economic analysis for the Butte County portion of the basin. The study scope will focus on providing flood damage reduction to the urban areas of Yuba City, Live Oak, Gridley and Biggs in the Sutter Bypass – Feather River sub-basin and developing a flood warning system for the outlying areas of the sub-basin. Other study objectives will include ecosystem restoration and recreation. An amendment to the Feasibility Cost Sharing Agreement increasing the estimated cost and adding Sutter-Butte Flood Control Agency as the co-sponsor with Central Valley Flood Protection Board was executed 14 July 2010.

Fiscal Year 2011 funds are being used to continue with plan formulation and work toward selecting the National Economic Development plan. Funds requested for Fiscal Year 2012 will be used to continue feasibility, identify flood damage areas, address the preliminary alternative, and determine economic damages prevented for each alternative analyzed. The estimated cost of the feasibility phase is \$8,556,000. The feasibility phase is to be cost-shared on a 50-50 percent basis by Federal and non-Federal interests. Up to 100 percent of the non-Federal costs may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	\$8,614,000
Reconnaissance Phase (Federal)	58,000
Feasibility Phase (Federal)	4,278,000
Feasibility Phase (Non-Federal)	4,278,000

The reconnaissance phase was completed in March 2000. The feasibility study completion date is being determined.

APPROPRIATION TITLE: Investigations, Fiscal Year 2012

Division: South Pacific

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2009 \$	Allocation FY 2009 \$	Allocation FY 2010 \$	President's Budget FY 2011 \$	Tentative Allocation FY 2012 \$	Additional to Complete After FY 2012 \$
CONTINUING – SURVEYS (Flood and Coastal Storm Damage Reduction)							
Upper Penitencia Creek, CA San Francisco District	4,505,000	3,237,000	191,000	323,000	177,000	177,000	400,000

The study area, extending along 3.6 miles of Upper Penitencia Creek, is located in the northwest portion of Santa Clara County, California in the city of San Jose and flows into Coyote Creek and the southern end of San Francisco Bay. Over the past 20 years, Upper Penitencia Creek has experienced severe flooding that has resulted in damages to residential, commercial and industrial properties, as well as erosion of the creeks levees. Major flood events occurred in the following storm years 1955, 1958, 1962, 1963, 1973, 1980, 1982 and 1983. The 1% flood plain contains approximately 1,600 properties. It is estimated that a 1% flood event would cause \$455 million in property damages. A study was initiated by the Soil Conservation Service, which developed feasibility level plans for flood damage reduction, but the amount of agricultural benefits identified in the analysis was insufficient to permit Soil Conservation Service participation. The U.S. Army Corps of Engineers was requested by the local sponsor, Santa Clara Valley Water District, to continue the study effort under Section 4 of the 1941 Flood Control Act. The improvements proposed by the Soil Conservation Service included flood proofing, new levees, floodwalls, bypass channels, channel realignment, grade stabilization and vegetative work in order to provide a flood protection from a 1% flood event. The reconnaissance study reviewed earlier efforts and identified the remaining tasks to be performed during the feasibility and design phases. The Santa Clara Valley Water District, the local sponsor, signed the Feasibility Cost Sharing Agreement in February 1998.

Fiscal Year 2011 funds are being used to continue the feasibility phase of the study to include preparation of the Alternative Formulation Briefing and sections of the draft Engineering Report. Funds requested for Fiscal Year 2012 will be used to continue the feasibility phase of the study. The estimated cost of the feasibility phase is \$8,320,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Up to 100 percent of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	\$8,665,000
Reconnaissance Phase (Federal)	345,000
Feasibility Phase (Federal)	4,160,000
Feasibility Phase (Non-Federal)	4,160,000

The reconnaissance phase was completed in February 1998. The feasibility study completion date is being determined.

APPROPRIATION TITLE: Investigations, Fiscal Year 2012

Division: South Pacific

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2011 \$	Allocation FY 2011 \$	Tentative Allocation FY 2012 \$	Additional to Complete After FY 2012 \$
SURVEYS – NEW – (Multipurpose)					
Yuba River, Daguerre Point Dam and Englebright Dam, CA Sacramento District	100,000	0	0	100,000	0

From its juncture with the Feather River at the City of Marysville, the study area extends upstream for a total of 30 river miles along the Yuba River. Daguerre Point Dam is located 11 miles upstream of this juncture and Englebright Dam another 10 miles upstream. The study area terminates at Rice's Crossing on the North Fork of the Yuba River 6 miles upstream of Englebright Dam. It also includes a one mile stretch of the Yuba River's South Fork, which breaks off a mile below Rice's Crossing. The purpose of the study is to investigate needs and opportunities for ecosystem restoration to improve fish passage at Daguerre Point Dam, to assess fish passage feasibility at Englebright Dam/Lake, and to develop a long-term gravel and woody debris augmentation program. Currently identified goals are to improve upstream fish passage for native anadromous fish species at Daguerre Point Dam, thus contributing to population recovery; and to improve aquatic and therefore fisheries habitat along the river and tributary streams. Yuba River supports a natural spawning run of Chinook salmon, steelhead, and green sturgeon, all of which are Federally listed as Threatened under the Endangered Species Act.

Englebright Dam was constructed in 1941, primarily to store debris resulting from hydraulic mining operations. Since the cessation of hydraulic mining, the project purpose has been to prevent the debris accumulated behind the dam from being washed downstream. Due to the dam's height of dam (260'), installation of fish passage facilities, such as ladders, was never considered. As such, Englebright Dam is an absolute barrier to volitional anadromous fish passage.

Daguerre Point Dam serves as a selective barrier to predatory species including American shad, striped bass, and pike minnow. The operating efficiency of existing fish ladders, however, could be substantially improved. They are small compared to current ladder design specifications and may prohibit migration by sturgeon, and sometimes clog with woody debris that blocks passage and reduces attraction flows. The flow in the Yuba River significantly exceeds the fish ladder capacities, hydraulically masks the fish ladder entrances, and renders the ladders ineffective for the greater part of all migration periods. An Initial Appraisal Report (July 2005) for Daguerre Point Dam indicates an economically justifiable solution can be formulated to repair the fish ladders and preserve water supply interests. The reconnaissance study would examine ecosystem restoration preliminary alternatives for fish passage conditions in the Yuba River Basin at Daguerre and Englebright Dams. Potential sponsors are the Yuba County Water Agency and California Department of Water Resources. The funds requested for Fiscal Year 2012 will be used to initiate and complete the reconnaissance phase of the study and negotiate a Feasibility Cost Sharing Agreement at full Federal expense. The reconnaissance phase is scheduled to be completed in September 2012, when the Feasibility Cost Sharing Agreement is executed, which is 12 months after initiating the study.

The study authority is the Flood Control Act of 1970, Section 216 and Flood Control Act of 1962.

Construction

APPROPRIATION TITLE: Construction – Local Protection, Flood Risk Management

PROJECT: American River Watershed, California (Continuing)

LOCATION: The project is located in Placer, El Dorado and Sacramento Counties and is comprised of three principal streams, the North, Middle and South Forks of the American River that flow westward into Folsom Lake. The outflow of the lake through Folsom Dam then flows through the city of Sacramento and into the Sacramento River. The system includes the Folsom Dam and Reservoir, located on the American River, about 29 miles upstream of the city of Sacramento, California. The American River watershed drains about 2,100 square miles northeast of Sacramento.

DESCRIPTION: Engineering evaluations indicated that the level of flood protection along much of the American River provides a level less than a 1% chance of exceedence annually. Several flood control projects have been authorized for construction for the American River to reduce the risk of flooding to Sacramento. American River Watershed Common Features consists of modifications to the lower American River levees and Sacramento River east levee in the Natomas Basin; modification of the Natomas Cross Canal levees; telemetered gages above Folsom Dam; and improving the flood warning system for the lower American River. Currently, Folsom Dam is designed to release up to 115,000 cubic feet per second (cfs) during flood operations, however the existing outlets limit releases to 36,000 cfs until approximately one half of the reservoir's flood control space is filled. Additional work is scheduled for Folsom Dam and related facilities to increase flood protection. Authorized work for Folsom Dam Modifications (aka Joint Federal Project - JFP), which will allow releases much earlier, consists of construction of a new auxiliary spillway and modifying the flood control storage space in Folsom Reservoir to a variable space ranging from 400,000 to 600,000 acre-feet. The authorized project to raise Folsom Dam 3.5 feet includes raising related dikes and auxiliary dam, construction of a permanent bridge downstream of Folsom Dam, and ecosystem restoration projects. The Joint Federal Project is a joint effort between the US Bureau of Reclamation (USBR) and the US Army Corps of Engineers (USACE). The basic concept is that USBR will complete 20% of the work under their Dam Safety program with the USACE completing the remaining 80%. Details of the plan are described in the Post Authorization Change (PAC) Report – American River Watershed Project, Folsom Dam Modifications and Folsom Dam Raise Projects.

AUTHORIZATION: (Common Features) Water Resources Development Act of 1996 (WRDA 96), Sec. 101(a)(1); Water Resources Development Act of 1999 (WRDA 99), Sec. 366; Energy and Water Development Appropriations Act (EWDAA), 2004; EWDAA, 2008 (Sec 130); (Folsom Dam Modifications) WRDA 99, Sec. 101(a)(6); WRDA 2007, Sec. 3029 (b)(1); (Folsom Dam Raise & Bridge) Defense Appropriations Act for FY 1993; WRDA 99, Sec. 566; EWDAA, 2004 and 2006, Sec. 134; EWDAA, 2009 (Sec 109) (permanent bridge).

REMAINING BENEFIT-REMAINING COST RATIO: (See Basis of Benefit-Cost Ratio).

TOTAL BENEFIT-COST RATIO: (See Basis of Benefit-Cost Ratio).

INITIAL BENEFIT-COST RATIO: (See Basis of Benefit-Cost Ratio).

BASIS OF BENEFIT-COST RATIO: Common Features – Initial benefits are from the Supplemental Information Report (SIR) approved June 1996 at 1995 price levels for work authorized in the WRDA 96. Benefits and costs are originally from the Second Addendum to the SIR approved October 2002 at October 2001 price levels. An economic update was completed in 2010 revising the benefits and updating the benefit to cost ratio to 1.91 in 2010 prices at a 7% interest rate. The remaining benefit – remaining cost ratio is 7.20 to 1. An economic update will be included in the General Reevaluation Report (GRR) incorporating additional levee improvements for the Common Features project.

Division: South Pacific

District: Sacramento

American River Watershed, California

BASIS OF BENEFIT-COST RATIO (continued)

Folsom Dam Modifications – Benefits and costs were finalized in the Economic Reevaluation Report (ERR) dated February 2009 and updated to 2010 prices in the Common Features Economic Update Report. The benefit to cost ratio at 7% is 2.03 to 1. The remaining benefit – remaining cost ratio is 2.3 to 1.

Folsom Dam Raise – Benefits and costs were finalized in the Economic Reevaluation Report (ERR) dated February 2009 and updated to 2010 prices in the Common Features Economic Update Report. The benefit to cost ratio at 7% is 3.19 to 1, but Folsom Dam Modifications has to be completed to receive full benefits. Remaining benefit - remaining cost ratios would be the same 3.19.

SUMMARIZED FINANCIAL DATA			STATUS (1 JAN 2011)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
<u>Common Features</u>					
Estimated Federal Cost		\$213,100,000	WRDA 96 Features	90	2013
Estimated Non-Federal Cost		68,900,000	WRDA 99 Features	50	2013
Cash Contribution	\$54,509,000		Entire Project	85	2018 ^{1/}
Other Costs	14,391,000				
Total Common Features		\$282,000,000			
1/ Assumes new authorization occurs as a result of the submission of the Natomas Post Authorization Change Report to Congress.					
<u>Folsom Dam Modifications</u>					
Estimated Federal Cost		\$541,400,000	Entire Project	15	2016
Estimated Non-Federal Cost		291,600,000			
Cash Contribution	\$291,600,000				
Other Costs	0				
Total Folsom Dam Modifications		\$833,000,000			
<u>Folsom Dam Raise</u>					
Estimated Federal Costs		\$133,530,000	Entire Project	0 ^{2/}	2018
Estimated Non-Federal Costs		71,330,000			
Cash Contribution	\$70,115,000				
Other Costs	1,215,000				
Total Folsom Dam Raise		\$204,860,000			

			STATUS	PCT	PHYSICAL COMPLETION
Division: South Pacific		District: Sacramento			American River Watershed, California

SUMMARIZED FINANCIAL DATA (Continued)

(1 JAN 2011)

CMPL

SCHEDULE

Folsom Bridge

Estimated Federal Costs		\$ 86,810,000 ^{3/}		Entire Project	95	2016
Estimated Non-Federal Costs		52,712,000				
Cash Contribution	\$38,486,000					
Other Costs	14,226,000					
Total Folsom Bridge		\$139,522,000				

2/ Reflects physical completion for Folsom Dam Raise portion only.

3/ Includes \$48,300,000 for permanent bridge not subject to cost sharing requirements with non-Federal interests.

Project Summary

Estimated Federal Costs		\$ 974,840,000
Estimated Non-Federal Costs		484,542,000
Cash Contribution	\$454,710,000	
Other Costs	29,832,000	
Total Estimated Project Costs		\$1,459,382,000

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PCT OF EST
FED COST

PHYSICAL DATA

Allocations to 30 September 2008	\$289,212,000	
Allocations for FY 2009	25,000,000	
Allocations for FY 2010	70,913,000	
Recovery Act Allocations to Date	18,977,534	
President's Budget for FY 2011	82,700,000	
Allocations through FY 2011	486,802,534	50
Budget for FY 2012	47,548,000	55
Programmed Balance to Complete after FY 2012	\$440,489,466	
Unprogrammed Balance to Complete after FY 2012	0	

1. COMMON FEATURES -
Streamflow Gages – Install 3 new telemetered gages upstream of

Folsom Lake (WRDA 96)
Flood Warning System – Install on lower American River (WRDA 96)
Closure Structure – Install at Mayhew Drain (WRDA 99)
Levees:
- Construct slurry and jet grout cutoff wall on 19.7 miles of lower American River levees (WRDA 96)

Division: South Pacific

District: Sacramento

American River Watershed, California

SUMMARIZED FINANCIAL DATA (Continued)

PHYSICAL DATA

1. COMMON FEATURES (Continued) -
 - Modify 4.4 miles of American River levees (WRDA 99)
 - Modify 12.1 miles of Sacramento River levees (WRDA 96)
 - Modify 10 miles of Natomas Cross Canal levees (WRDA 99)

2. Authorized FOLSOM DAM MODIFICATIONS –
Construct auxiliary spillway

3. Authorized FOLSOM DAM RAISE -
Raise Folsom Dam, wing walls & dikes
Construct Bridge
Accomplish ecosystem restoration

JUSTIFICATION: This flood and storm damage reduction project warrants a high funding priority because it addresses significant risk to human safety in accordance with the U.S. Army Corps of Engineers performance-based guidelines for the construction account. Folsom Dam and Reservoir are key features in the flood control system protecting Sacramento. Folsom Reservoir has a capacity of 975,000 acre-feet, which includes a minimum of 400,000 acre-feet of space seasonally dedicated to flood control. Significant rainfall in recent years has filled Folsom Lake and necessitated record releases in excess of design flow downstream. The levees along the American River are designed to accommodate releases from Folsom Dam of up to 115,000 cfs. Downstream levees would likely fail with sustained flows above this level. Levee failure along the lower American River and Sacramento River could result in flooding of more than 100,000 acres, affecting approximately 800,000 residents, with damages of up to \$58 billion, depending on the magnitude of the event. The Common Features project, consisting of levee improvements along the American and Sacramento Rivers and Natomas Cross Canal, installation of new and telemetering existing streamflow gages and implementing a new flood warning system on the lower American River as authorized in WRDA 96 and WRDA 99 would decrease the probability of flood damage to about a 1 in 100 chance in any one year. Average annual benefits for the Common Features portion amount to \$59,500,000, all flood control, escalated to October 2010 price levels. The authorized Folsom Dam Modifications project would construct an auxiliary spillway. This would further reduce the risk of flood damage to a 1 in 140 chance in any one year. Average annual benefits amount to \$131,800,000, all flood control, at October 2010 price levels. The Folsom Dam Raise Project would further reduce the risk of flood damage to a 1 in 213 chance in any one year. Average annual benefits amount to \$33,100,000, all flood control, at October 2010 price levels.

Division: South Pacific

District: Sacramento

American River Watershed, California

14 February 2011

SPD-22

FISCAL YEAR 2011: The current amounts are being applied as follows:

Folsom Dam Modifications	
Continue construction of control structure for auxiliary spillway	\$78,000,000
Total Folsom Dam Modifications	\$78,000,000
Common Features	
Complete Natomas Post Authorization Change Report	\$ 200,000
Continue Common Features GRR	\$ 4,000,000
Total Common Features	\$ 4,200,000
Folsom Dam Raise	
Planning, Engineering, and Design on project features	\$ 500,000
Total Folsom Dam Raise	\$ 500,000
Grand Total, American River Watershed	\$82,700,000

FISCAL YEAR 2012: The budget amount will be applied as follows:

Folsom Dam Modifications	
Continued construction of the control structure	\$ 15,200,000
Continue design of chute and stilling basin	3,000,000
Continue Permanent Operations Study	2,800,000
Total Folsom Dam Modifications	\$ 21,000,000
Common Features	
Complete portions of Natomas seepage and stability remediation design	\$23,548,000
Complete design of WRDA 96 and 99 seepage remediation	2,000,000
Total Common Features	\$ 25,548,000

Division: South Pacific

District: Sacramento

American River Watershed, California

FISCAL YEAR 2012: (Continued)

Folsom Dam Raise

Continue design on project features \$ 1,000,000

Total Folsom Dam Raise \$1,000,000

Grand Total, American River Watershed \$ 47,548,000

NON-FEDERAL COSTS: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Common Features		
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas.	\$14,391,000	
Pay 20 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 25 percent, as determined under Section 103 (m) of the Water Resources Development Act of 1996, as amended, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	54,509,000	\$54,000
Total Common Features Non-Federal Costs	\$68,900,000	\$54,000

Division: South Pacific

District: Sacramento

American River Watershed, California

NON-FEDERAL COSTS (Continued)

	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Requirements of Local Cooperation		
Folsom Dam Modifications		
Pay 35 percent of the costs allocated to flood control, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	\$291,600,000	\$800,000 ^{4/}
Total Folsom Dam Modifications Non-Federal Costs	\$291,600,000	\$800,000 ^{4/}
^{4/} The operation and maintenance (O&M) would continue to be performed by the USBR. An initial cost-sharing agreement has been negotiated between the Sacramento Area Flood Control Agency (SAFCA) and USBR to pay the portion of O&M costs related to the new flood control features. Subsequent agreements are to be negotiated as project information is further defined.		
<u>Folsom Dam Raise – Raise Component</u>		
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas.	\$ 1,215,000	
Pay 35 percent of the costs allocated to flood control to bring non-Federal share to 35 percent, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	42,697,000	^{5/}
Pay 33 percent of the costs allocated to ecosystem restoration to bring non-Federal share to 35 percent.	27,418,000	
Total Folsom Dam Raise Component	\$71,330,000	

Division: South Pacific

District: Sacramento

American River Watershed, California

NON-FEDERAL COSTS (Continued)

^{5/} The operation and maintenance (O&M) would continue to be performed by USBR. An initial cost-sharing agreement would be negotiated between SAFCA and USBR to pay the portion of O&M costs related to the new flood control features. Amount is for both Folsom Dam Modifications (JFP) and Folsom Dam Raise.

	Payments During Construction and Reimbursements	Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Requirements of Local Cooperation		
<u>Folsom Dam Raise – Bridge Component</u>		
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas (City of Folsom).	\$ 9,589,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project (City of Folsom).	4,637,000	
City of Folsom's share of costs associated with bridge construction.	28,000,000	
Pay 35 percent of the costs allocated to flood control, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	10,486,000	
Total Folsom Bridge Component	\$ 52,712,000	
Total Folsom Dam Raise (including Bridge) Non-Federal Costs	\$124,042,000	
Total American River Watershed Non-Federal Costs	\$485,842,000	\$854,000

STATUS OF LOCAL COOPERATION: The Central Valley Flood Protection Board (CVFPB) is the non-Federal sponsor for the Common Features Project. The Project Cooperation Agreement (PCA) for the Common Features was executed in July 1998 for implementation of features authorized by WRDA 1996. Amendment 1 to the PCA was executed in June 2003 and increased the project cost and extended the completion date due to addition of WRDA 1999 levee work.

Division: South Pacific

District: Sacramento

American River Watershed, California

STATUS OF LOCAL COOPERATION: (continued)

Amendment 2 was executed in September 2006 and increased the total project cost and project completion date in accordance with EWDA 2004. Amendment 3 was executed in July 2006 and authorized the non-Federal sponsor to accelerate the cash contribution. Amendment 4 was executed in July 2007 and amended the project scope in accordance with WRDA 1999 to add Mayhew, Howe Avenue, Jacob Lane and Natomas East Main Drainage Canal levees to the project scope. The total project cost was increased.

The CVFPB and SAFCA are the non-Federal sponsors for the Folsom Dam Modifications. The PCA for the Folsom Dam Modifications was executed on 30 March 2004 and amended 24 August 2009 to incorporate Section 3029 of WRDA 2007. The approval for the allocation of sponsor credits was approved on 22 February 2010. A second amendment to the Folsom Dam Modifications PCA incorporating these approved sponsor credits was executed on 21 June 2010.

The CVFPB and SAFCA are the non-Federal sponsors for the Folsom Dam Raise. The Project Partnership Agreement (PPA) for the Dam Raise is scheduled for execution in FY 2013. The non-Federal sponsors are financially capable and willing to contribute the non-Federal share. The non-Federal sponsors have also agreed to make all required payments concurrently with project construction.

The city of Folsom is the non-Federal sponsor for the Folsom Bridge Project. The PCA was executed 22 November 2006.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$977,340,000 is the same as the latest estimate presented to Congress (FY 2011).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: Common Features - A Supplemental Environmental Impact Statement/Environmental Impact Report (SEIS/EIR) was filed with the Environmental Protection Agency on 8 March 1996. Folsom Dam Modifications/Folsom Dam Raise (Joint Federal Project) – The USBR, with cooperation from the Corps, prepared an EIS/EIR, which was finalized in March 2007. USBR and the Corps signed a joint Record of Decision (ROD) on 3 May 2007.

OTHER INFORMATION: The American River Watershed Feasibility Report was completed in December 1991 and the Supplemental Information Report (SIR) was completed in March 1996. The SIR identified three candidate plans which would help reduce the flood risk facing Sacramento: modifying Folsom Dam and increasing the dedicated flood space; modifying Folsom Dam and the downstream system to allow increased objective releases; and constructing a detention dam upstream of Folsom Dam. In June 1996, the Chief of Engineers deferred a decision on a comprehensive flood control plan, but recommended that features common to all three plans be authorized as the first component of a comprehensive plan.

OTHER INFORMATION (Continued)

WRDA 96 authorized construction of the Common Features. Funds were appropriated in Fiscal Year 1998 to initiate construction. Additional flood control improvements along the lower American River and Natomas Cross Canal were authorized by Section 366 of WRDA 99 as part of the overall project. The cost of slurry wall construction authorized by WRDA 96 has increased significantly due to increased slurry wall quantities, the technical requirement for the more costly jet grout construction method for slurry wall construction around bridges and deep utilities, and several high-cost contract modifications due to slurry leaks during construction. The cost of planning, engineering and design has also increased. Project reauthorization was required to increase the project cost estimate to complete most of the remaining WRDA 96 and WRDA 99 features. The Second Addendum to the SIR, dated March 2002 and revised July 2002, serves as the decision document/post-authorization change (PAC) report. Based on this report, Section 129 of EWDA, 2004 increased the authorized first cost to \$205 million. A separate Natomas PAC Report decision document was prepared under the Common Features Project to address previously unknown levee under-seepage problems and levee deficiencies along the Sacramento River and in the Natomas Basin including the Natomas Cross Canal. The Chief of Engineers Report on Natomas was signed in December 2010. The Common Features General Reevaluation Report (GRR) is addressing additional levee improvements and seepage and stability remediation on the Sacramento River below the American River, including the Pocket Area, and will likely result in the need for additional design and construction requiring new authorization.

Common Features – Funds used to initiate preconstruction engineering and design of the common elements were allocated in FY 1996. Construction of the first contract on the lower American River levees was initiated in July 1998. WRDA 96 Phase 1 remaining sites construction started in summer 2009 and will be completed in 2011; WRDA 96 Phase 2 remaining sites design will be complete in FY2011, and construction will begin in FY2012 depending on funding. WRDA 99 remaining sites design will also be complete in FY2011, and construction will begin in FY2012 depending on funding. Fish and wildlife mitigation costs are currently estimated at \$3,773,000. To date seepage and stability remediation have been constructed as part of the Common Features project on approximately 22 miles on the American River and 1 mile on the Sacramento River. Despite work completed and currently ongoing, the City of Sacramento remains one of the communities most at risk for flooding nationwide. Addressing this risk, the Common Features GRR will continue to evaluate additional levee improvement, along the Sacramento River, downstream of the confluence with the American River, including the Pocket Area. Upon completion of the GRR and subsequent authorization, design and construction efforts will begin on these additional levee improvements to significantly reduce the flood risk for the City of Sacramento.

Folsom Dam Modifications – Funds used to initiate preconstruction engineering and design on the Folsom Dam Modifications were allocated in FY 2000. Funds to initiate construction were appropriated in FY 2001. SAFCA prepared the Folsom Dam Modification Report New Outlets Plan dated March 1998 (SAFCA Outlet Report), which identified some proposed changes to the Folsom Dam Modification Plan described in the 1996 SIR. The 1996 SIR as modified by SAFCA Outlet Report was the basis for the project authorized under WRDA 99. The Limited Reevaluation Report, dated November 2003, documents the 1996 SIR plan as modified by the SAFCA Outlet Report. Information in FY 2007 budget submittal indicated that the project, as originally designed, would exceed the maximum authorized cost per Section 902 of WRDA 86. Action was taken to conduct engineering evaluations and to develop a Post Authorization Change and Engineering Documentation Report (PAC/EDR) document recommending a functionally equivalent performance project that involves a new gated auxiliary spillway on the left embankment of Folsom Dam. USACE PAC Report and U.S. Bureau of Reclamation Mod Report recommended a Joint Federal Project, which addresses both the Dam Safety and the Flood Risk Management issues. During PAC and Mod approval process, both Assistant Secretary of the Army (Civil Works) and Assistant Secretary of the Interior (Water & Science) made strong commitments to each other to make the JFP a top priority and expeditiously design and construct the project, because of the significant property and loss of life risks and the efficiencies of both agencies

Division: South Pacific

District: Sacramento

American River Watershed, California

OTHER INFORMATION (Continued)

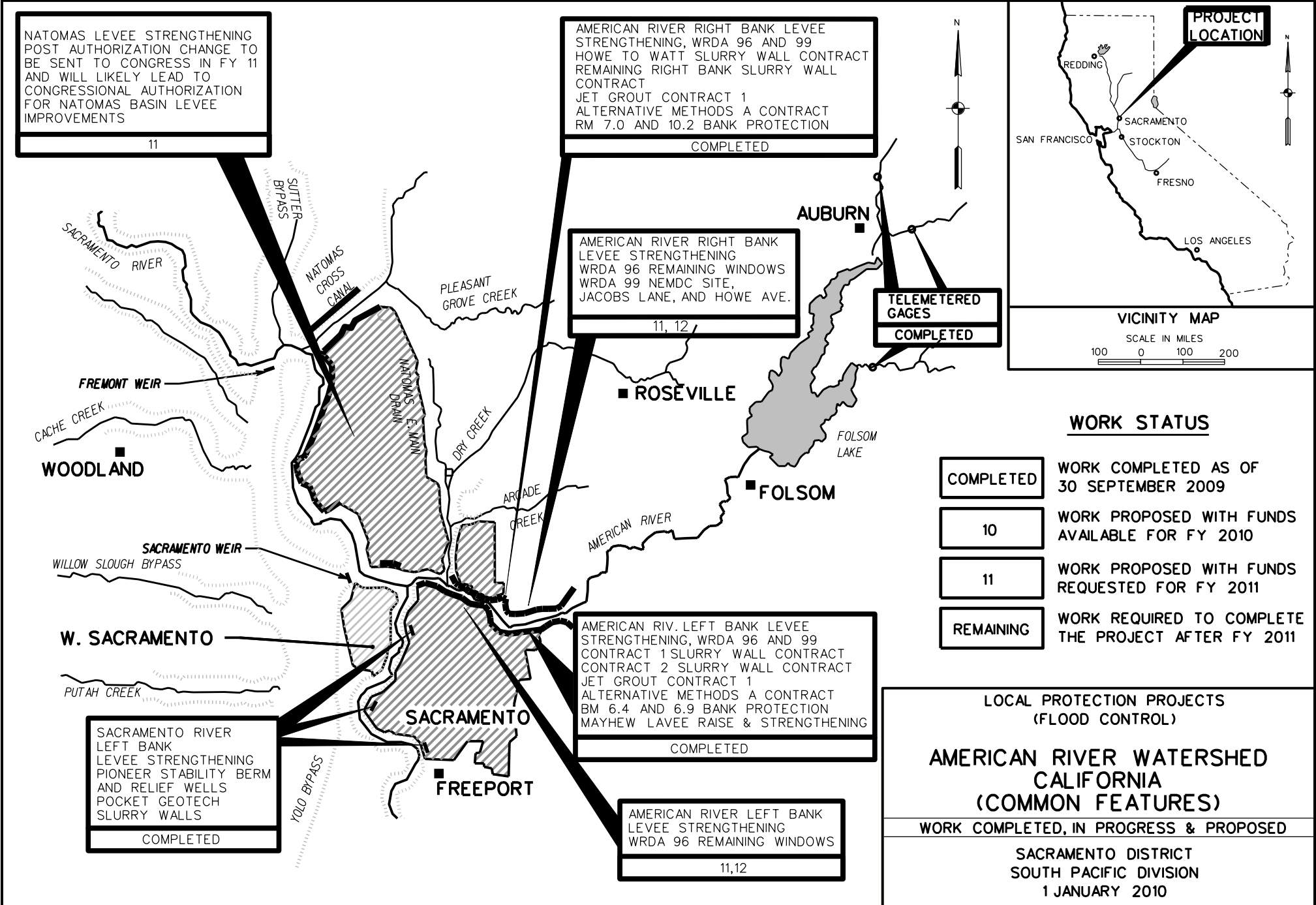
working together. Further, both agencies recognized that neither agency could or should move forward without a strong commitment to build the project together. Both the PAC and Mod Reports were approved by OMB September 2007. WRDA 2007 authorized construction in accordance with the PAC at a total cost of \$683,000,000 (USACE portion) and congress encouraged USACE and USBR to move forward expeditiously. Average annual costs and flood damage reduction benefits in the PAC report are \$37.9 million and \$89.9 million, respectively. Total damageable property is estimated at \$58B due to flooding in the Sacramento area. Engineering and design effort on the Folsom Dam Modifications portion of the JFP will continue through FY 2012. USBR started construction of the JFP on 11 January 2008 and will complete their portion of the project January 2011. Of the \$78,000,000 allocated in the FY 2011 President's budget, there may be a surplus of \$17,000,000 driven by a substantially lower than anticipated contract bid.

DAM SAFETY ISSUE: This construction satisfies the USBR's significant dam safety issues at Folsom Dam. This is the USBR's top dam safety issue in the nation. Without the JFP, the USBR has determined a probable maximum flood would cause catastrophic failure of the Folsom Dam and many lives would be lost. Emergency response and regional/national economic disruption costs associated with flooding in Sacramento are enormous. There is limited egress and ingress across Sacramento and American Rivers and there would be a disruption of statewide drinking water supplies.

Fish and wildlife mitigation costs are currently not expected to be significant.

Folsom Dam Raise – The Long Term Study (Feasibility Report) for the entire American River Watershed was completed in February 2002. The Chief's Report, dated 5 November 2002, was followed by the Division Engineer's Public Notice issued on 22 March 2003. Funds to initiate construction were appropriated in FY 2004. The PAC Report recommended the Raise design be refined from 7-foot raise to a 3.5-foot raise. Fish and wildlife mitigation costs are currently not expected to be significant. Of the \$1,000,000 allocated in the FY 2012 President's budget, there may be a surplus of \$250,000 driven by a late start in FY 2011 activities, thus reducing the amount of design and planning effort that can be completed in FY 2012.

Folsom Bridge – Total project cost (including only the temporary bridge component) was authorized at \$257,300,000 in EWDA, 2004, P.L. 108-137, Section 128, for both Folsom Dam Raise and Folsom Bridge. Section 128 also modified the cost sharing of the permanent bridge feature and required status reports to Congress. Sec. 128(b) of EWDA, 2006, P.L. 109-103 amended Sec. 134 of P.L. 108-137 by authorizing "to be appropriated to the Secretary of the Army \$30,000,000 for the construction of the permanent bridge described in section 128(a) of P.L. 109-103, above the \$36,000,000 provided for in the recommended plan for bridge construction. The \$30,000,000 shall not be subject to cost sharing requirements with non-Federal interests." Sec. 109 of the Omnibus Appropriations Act, 2009, P.L. 111-8 further amended Sec. 134 of P.L. 108-137, as amended by section 128(b) of P.L. 109-103, "by striking "\$30,000,000" wherever it appears and inserting "\$48,300,000" in lieu thereof."



NATOMAS LEVEE STRENGTHENING POST AUTHORIZATION CHANGE TO BE SENT TO CONGRESS IN FY 11 AND WILL LIKELY LEAD TO CONGRESSIONAL AUTHORIZATION FOR NATOMAS BASIN LEVEE IMPROVEMENTS

11

AMERICAN RIVER RIGHT BANK LEVEE STRENGTHENING, WRDA 96 AND 99 HOWE TO WATT SLURRY WALL CONTRACT REMAINING RIGHT BANK SLURRY WALL CONTRACT JET GROUT CONTRACT 1 ALTERNATIVE METHODS A CONTRACT RM 7.0 AND 10.2 BANK PROTECTION

COMPLETED

AMERICAN RIVER RIGHT BANK LEVEE STRENGTHENING WRDA 96 REMAINING WINDOWS WRDA 99 NEMDC SITE, JACOBS LANE, AND HOWE AVE.

11, 12

TELEMETERED GAGES

COMPLETED

AMERICAN RIV. LEFT BANK LEVEE STRENGTHENING, WRDA 96 AND 99 CONTRACT 1 SLURRY WALL CONTRACT CONTRACT 2 SLURRY WALL CONTRACT JET GROUT CONTRACT 1 ALTERNATIVE METHODS A CONTRACT BM 6.4 AND 6.9 BANK PROTECTION MAYHEW LAVEE RAISE & STRENGTHENING

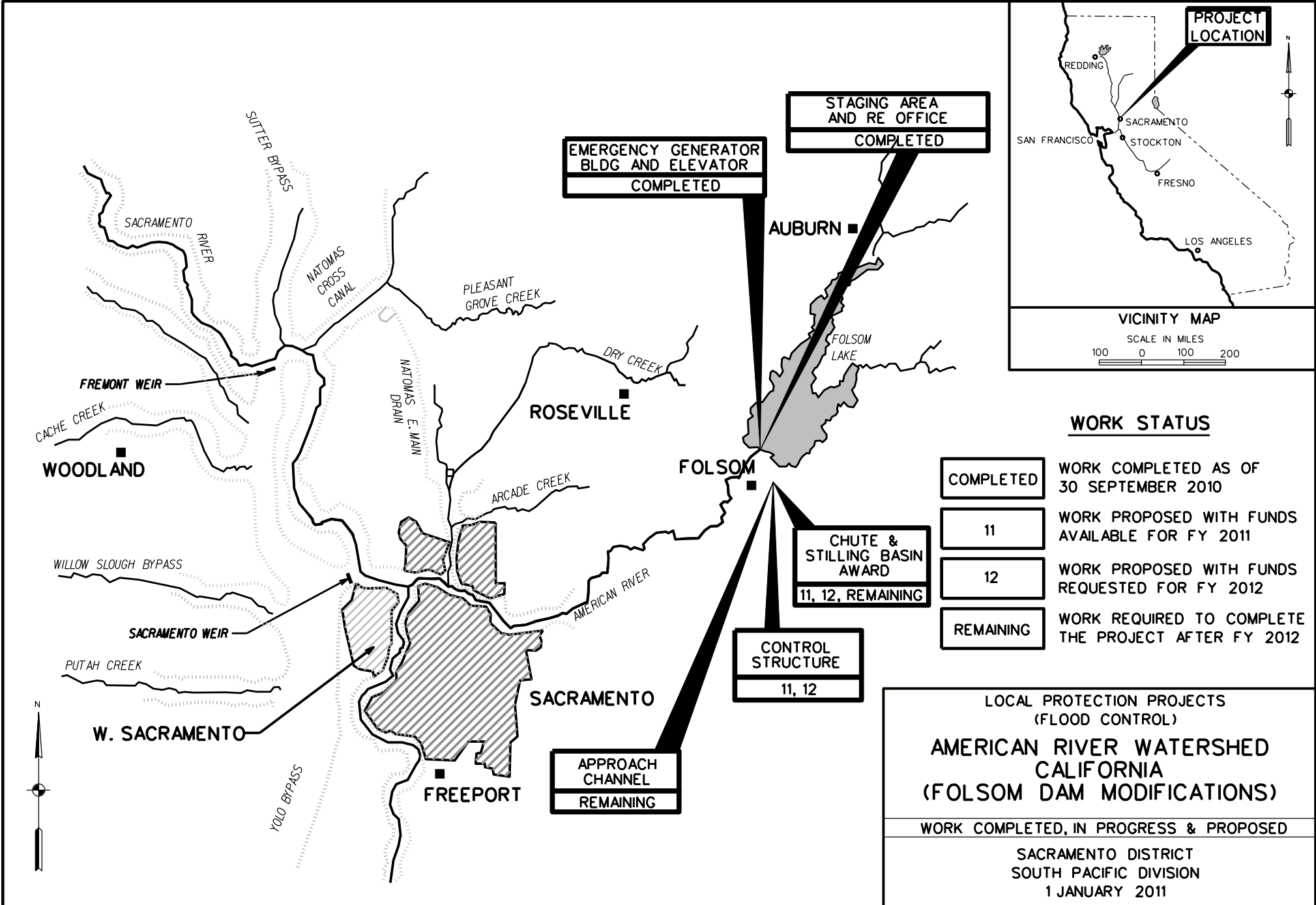
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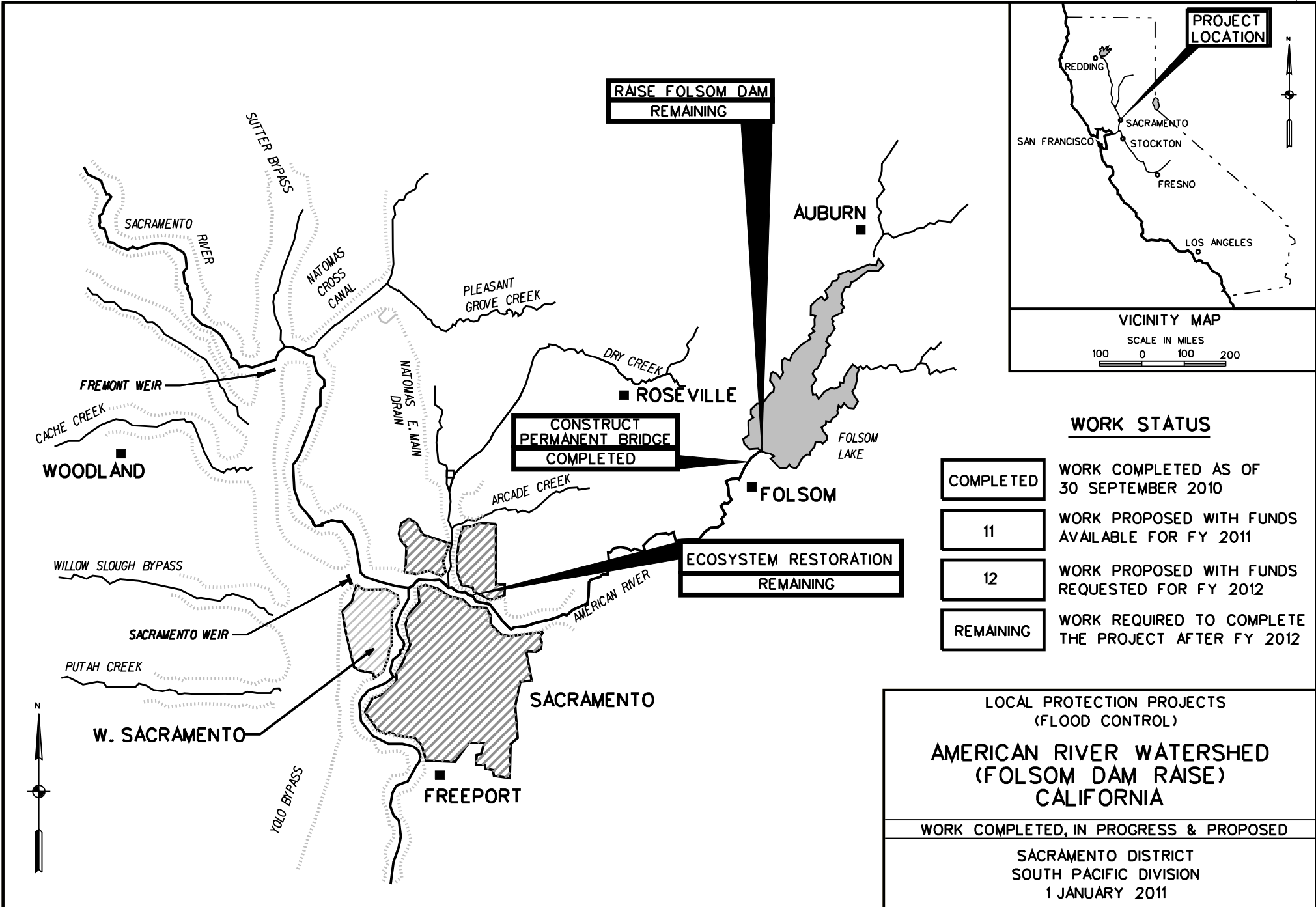
SACRAMENTO RIVER LEFT BANK LEVEE STRENGTHENING PIONEER STABILITY BERM AND RELIEF WELLS POCKET GEOTECH SLURRY WALLS

COMPLETED

AMERICAN RIVER LEFT BANK LEVEE STRENGTHENING WRDA 96 REMAINING WINDOWS

11, 12





APPROPRIATION TITLE: Construction – Flood Risk Management

PROJECT: Rio Grande Floodway, San Acacia to Bosque del Apache Unit, New Mexico (Continuing)

LOCATION: The project is located in Socorro County, New Mexico along the Rio Grande, and extends from the upper end of the Rio Grande low-flow conveyance channel at the San Acacia diversion works (just north of the City of Socorro) to Tiffany Basin, approximately 11 miles of upstream of Elephant Butte Reservoir.

DESCRIPTION: The plan of improvement consists of the construction of approximately 43 miles of levees to replace existing spoil banks along the Rio Grande from the diversion works at San Acacia to Tiffany Basin. The level of protection is a discharge of approximately 20,000 cfs at Socorro, New Mexico, corresponding to approximately the 100 year flood.

AUTHORIZATION: Flood Control Act of 1948, Section 203 and Water Resources Development Act of 1992, Section 102(12)(s).

REMAINING BENEFIT - REMAINING COST RATIO: 5.0 to 1 at 7 percent.

TOTAL BENEFIT - COST RATIO: 2.4 to 1 at 7 percent.

INITIAL BENEFIT - COST RATIO: 2.9 to 1 at 7 percent (FY 1992).

BASIS OF BENEFIT - COST RATIO: Benefits are from the Appendix to the Project Decision Document dated December 1993 at October 1993 price levels. Updated economic analyses will be determined in the Limited Reevaluation Report, scheduled for completion in FY 2012.

SUMMARIZED FINANCIAL DATA	ACCUM. PCT. OF EST. FED. COST	STATUS (1 JAN 2011)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	\$67,900,000	Entire Project	0	2020
Estimated Non-Federal Cost	9,700,000			
Cash Contribution	\$8,800,000	PHYSICAL DATA		
Other Costs	900,000			
Total Estimated Project Cost	\$77,600,000	Levees – 43 Miles		
Allocations to 30 September 2008	\$ 9,493,000			
Allocations for FY 2009	766,000			
Allocations for FY 2010	356,000			
Recovery Act Allocations to Date	750,000			
Division: South Pacific	District: Albuquerque	Rio Grande Floodway, San Acacia to Bosque del Apache Unit, NM		

SUMMARIZED FINANCIAL DATA (continued)

ACCUM.
PCT. OF EST.
FED. COST

President's Budget for FY 2011	1,200,000	
Allocations through FY 2011	12,565,000	19
Budget for FY 2012	10,000,000	33
Programmed Balance to Complete after FY 2012	45,335,000	
Unprogrammed Balanced to Complete after FY 2012	0	

JUSTIFICATION: The project will provide protection from approximately the 100-year flood with an estimated discharge of 20,000 cubic feet per second (cfs). The flood of record, in September 1929, produced a peak discharge of 60,000 cubic feet per second on the Rio Grande at the San Acacia gage. Irrigation and transportation facilities were either disrupted or destroyed. Over 90 percent of the irrigated farmland in a 60 mile reach of the Rio Grande was severely damaged, and the original villages of San Acacia, San Antonio, and San Marcial were destroyed. Damages sustained at that time were \$1,500,000; under current conditions and prices the damages would be \$288,000,000. The last major flood event occurred in 1965 with minor flooding in 1967, 1979 and 2005. The value of property within the 100-year flood plain is \$400,000,000. Residential property within the 100-year flood plain is worth \$55,000,000. The Rio Grande low-flow conveyance channel, built by the U.S. Bureau of Reclamation in 1961, is a major damageable property in the project. Cost to construct the low flow conveyance channel at October 2009 price levels is \$140,000,000. The United States Bureau of Reclamation estimates that following a flood severe enough to breach the spoil-bank levee separating the low-flow conveyance channel from the adjacent floodway, the low-flow conveyance channel would be obliterated and out of service for at least five years. As much as 455,000 acre-feet of water would be lost over such a five-year period, with an economic value of \$23,000,000. Loss of the channel would also have international significance, as the 1906 Treaty with Mexico requires the delivery of 60,000 acre-feet of water annually. Single occurrence damages from the one percent chance floods are \$277,000,000. Average annual damages without the project are \$12,996,400 and with the project are \$967,000. Average annual benefits are \$12,029,000, all flood risk management, based on October 2009 price levels. The project avoids long and short term impacts associated with the destruction or modification of wetlands. The project protects existing wetlands at Bosque del Apache National Wildlife Refuge.

FISCAL YEAR 2011: The current amount is being applied as follows:

Continue Limited Reevaluation Report	\$	600,000
Initiate plans and specifications		200,000
Conduct Independent External Peer Review		400,000
Total	\$	1,200,000

Division: South Pacific

District: Albuquerque

Rio Grande Floodway, San Acacia to Bosque del Apache Unit, NM

FISCAL YEAR 2012: The requested amount will be applied as follows:

Initiate construction contract	\$ 8,800,000
Complete Limited Reevaluation Report	200,000
Complete plans and specifications	200,000
Planning, Engineering and Design	200,000
Construction Management	600,000
Total	\$ 10,000,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, and the Water Resources Development Act of 1992, PL 102-580, Section 102(S), the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments Annual During Maintena Construction Reh and Reimbursements Repl	Operation, nce, Repair, abilitation, and acement Costs
Participate in Project Partnership Team, conduct audits of non-Federal costs, and perform investigations of hazardous substances.	\$ 100,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	800,000	
Pay 11.3 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 12.5 percent, but no less than 5 percent of the costs allocated to flood control and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	8,800,000	\$240,000
Total Non-Federal Cost	\$ 9,700,000	\$240,000

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

Division: South Pacific

District: Albuquerque

Rio Grande Floodway, San Acacia to Bosque del Apache Unit, NM

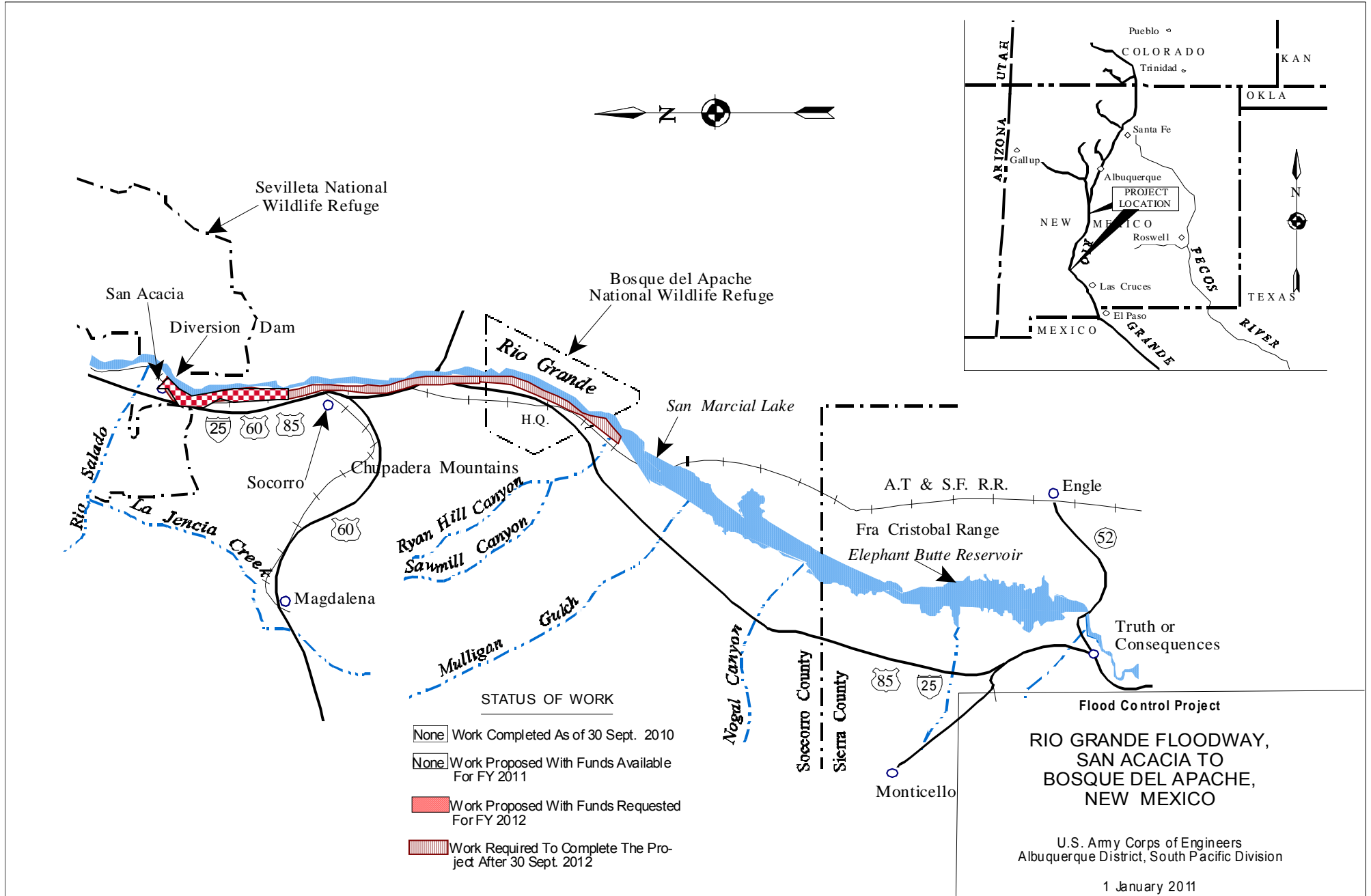
STATUS OF LOCAL CO OPERATION: The Middle Rio Grande Conservancy District supports the authorized levee project, as currently modified, to provide needed flood protection to the Middle Rio Grande Valley below San Acacia. By letter dated 28 July 1995, the New Mexico State Engineer indicated that funding for a portion of the non-Federal share of the project may be provided by the New Mexico Interstate Stream Commission from the Improvement of the Rio Grande Income Fund. The Project Partnership Agreement is scheduled for execution in June 2012.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$67,900,000 (1 October 2010) is the same as the latest estimate (\$67,900,000) presented to Congress (FY 2010).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Supplemental Environmental Impact Statement was filed in February 1992. A supplemental Environmental Impact Statement is scheduled to be filed with the Environmental Protection Agency in August 2012.

OTHER INFORMATION: Funds to initiate Preconstruction Engineering and Design were appropriated in Fiscal Year 1987, and funds to initiate construction were appropriated in Fiscal Year 1992. The final Limited Reevaluation Report (LRR) is scheduled for approval in June 2012. The Project Partnership Agreement is scheduled for execution in June 2012. American Recovery and Reinvestment Act funds received in FY 2009 were used to continue geotechnical investigations required for design of the levees.

The San Acacia to Bosque del Apache levee project was authorized by the Flood Control Act of 1948 as a portion of the overall Rio Grande Floodway project. Under this broad authorization, and based on a prioritization of need, the Corps built levees through Albuquerque in the 1950's, constructed four upstream reservoirs in the 1950's, 1960's and 1970's, and other features during the 1980's and 1990's. Cost sharing requirements were modified in the Water Resources Development Act of 1992, based on protection of Federal facilities. The Rio Grande Floodway, San Acacia to Bosque del Apache Levees were nearing construction in the early 1990's when two key developments occurred that delayed the project. The first of these developments was the 1993 Mississippi flooding, which resulted in new hydrologic guidance requiring the consideration of long-duration flood hydrographs. The second was the Federal listing of two new endangered species in the Rio Grande Basin; the Rio Grande silvery minnow in 1994, and the south western willow flycatcher in 1995. As a result, project reevaluation was required to account for the changed environmental and hydrologic parameters. Additionally, in 1999, the Bureau of Reclamation began reevaluating the future use of the Rio Grande Low Flow Conveyance Channel, which was built as part of their Rio Grande Project to provide irrigation water in the middle Rio Grande valley. The Rio Grande Low Flow Conveyance Channel accounts for approximately one-third of the flood control benefits attributed to the flood control project. The Bureau of Reclamation's deliberations regarding the low flow conveyance channel stalled the project until 2002 when the Bureau of Reclamation determined that the Low Flow Conveyance Channel would remain in service, allowing the Corps' flood control analysis to proceed.



APPROPRIATION TITLE: Construction – Local Protection (Flood Risk Management)

PROJECT: Sacramento River Bank Protection Project, California (Continuing)

LOCATION: The project is located in north-central California, along the Sacramento River and its principal tributaries from Sacramento River RM 0.0 at Collinsville to Chico Landing at RM 194. It is within the limits of the existing Sacramento River Flood Control Project levees and includes Butte Basin, Cache Slough, and a portion of the Sacramento-San Joaquin Delta slough. The project meanders through eight counties including Tehama, Glenn, Butte, Colusa, Sutter, Yolo, Solano, and Sacramento.

DESCRIPTION: The project provides a long-range program of bank protection to protect the levees within the limits of the Sacramento River Flood Control Project from erosion. It prevents undermining of levee sections and includes fish and wildlife mitigation features. Some recreational facilities have been provided along the river.

AUTHORIZATION: Flood Control Act of 1960; River Basin Monetary Authorization Act of 1974; Further Continuing Appropriations Act of 1983; Water Resources Development Act (WRDA) of 1986, Sec. 601 (a) and WRDA 2007, Sec. 3031.

REMAINING BENEFIT-REMAINING COST RATIO: N/A (See OTHER INFORMATION)

TOTAL BENEFIT-COST RATIO: N/A (See OTHER INFORMATION)

INITIAL BENEFIT-COST RATIO: Not Reported

BASIS OF BENEFIT-COST RATIO: N/A (See OTHER INFORMATION)

Division: South Pacific

District: Sacramento

Sacramento River Bank Protection, California

14 February 2011

SPD-38

SUMMARIZED FINANCIAL DATA	FED	ACCUM PCT OF EST COST	(1	PHYSICAL STATUS JAN 2011)	CMPL	PCT	SCHE	COMPLETION DULE
Separable Element 1 (non-separable elements)				Bank	Protection Recreation	100 100		
Estimated Federal Cost		\$299,458,000						
Estimated Non-Federal Cost		\$149,881,000						
Cash Contribution	\$129,391,000							
Other Costs	20,490,000							
Total Separable Element 1		\$449,339,000						
Separable Element 2 (Completed Fish & Wildlife Mitigation)				Bank Protection Recreation		100 100		
Estimated Federal Cost		\$ 1,336,000						
Estimated Non-Federal Cost		\$ 784,000						
Cash Contribution	\$ 84,000							
Other Costs	700,000							
Total Separable Element 2		\$ 2,120,000						
Separable Element 3 (LCA 41)				Bank Protection Recreation		100 100		
Estimated Federal Cost		\$ 8,619,000						
Estimated Non-Federal Cost		\$ 2,873,000						
Cash Contribution	\$ 1,857,000							
Other Costs	1,016,000							
Total Separable Element 3		\$ 11,492,000						

Division: South Pacific

District: Sacramento

Sacramento River Bank Protection, California

SUMMARIZED FINANCIAL DATA (Continued)		ACCUM PCT OF EST FED COST	STATUS (1 JAN 2011)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Separable Element 4 (LCA 38B, 40, & 42)			Bank Protection	85	2021
Estimated Federal Cost		\$ 57,187,000			
Estimated Non-Federal Cost		\$ 19,062,000	Entire Project	91	2021
Cash Contribution	\$ 19,062,000				
Other Costs	0				
Total Separable Element 4		\$ 76,249,000			
Project Summary					PHYSICAL DATA Bank Protection: 915,000 lineal feet First Phase: 430,000 lineal feet Second Phase: 485,000 lineal feet
Estimated Federal Cost		\$366,600,000			
Estimated Non-Federal Cost		\$172,600,000			
Cash Contribution	\$150,394,000				
Other Costs	22,206,000				
Total Estimated Project Cost		\$539,200,000			
Allocations to 30 September 2008		\$189,907,000			
Allocation for FY 2009		22,967,000			
Allocation for FY 2010		14,171,000			
Recovery Act Allocations to Date		0			
President's Budget for FY 2011		10,000,000			
Allocations through FY 2011		237,045,000	65		
Budget for FY 2012		10,000,000	67		
Programmed Balance to Complete after FY 2012		119,555,000			
Unprogrammed Balance to Complete after FY 2012		0			

Division: South Pacific

District: Sacramento

Sacramento River Bank Protection, California

JUSTIFICATION: The Sacramento River Flood Control Project consists of 977 miles of levees plus overflow weirs, pumping plants and bypass channels along the Sacramento River from RM 0 near Collinsville to RM 194 near Chico, including several sloughs and the lower reaches of major tributaries. The Sacramento River levee system was initiated as a purely local project and in many cases the levees were constructed close to the riverbanks without a protective berm. The levee system, which was adopted as the Sacramento River Flood Control Project in 1917, has been modified and expanded several times since that date but no major change in the basic levee alignment has been made since the original conception of the project. Bank protection is necessary to preserve the Sacramento River Flood Control Project and ensure that it will continue to furnish the designed degree of protection. The levees are continuously threatened by erosion, and unless corrective measures are taken, levee failures may occur with resultant catastrophic damage and possible loss of many lives. Flood events that occurred in February 1986 and January 1997 greatly emphasized these problems. Several levees located along the Sacramento River were subjected to an extensive amount of erosion due to the extremely high river flows. High flows in January and March 1995 caused flooding and erosion in the Butte Basin area along the Sacramento River, River Mile (RM) 188 at Glenn County Road 29. If levee repairs had not been made, additional flooding would have caused extensive loss of agricultural land and endangered residents in nearby communities of Butte City, Princeton and Colusa. In addition, during moderately high flows in February 1996, a 500 foot portion of berm on the American River failed, threatening the levee protecting the city of Sacramento. A contract was awarded in August 1996 to repair this section and provide bank protection for a total of 1,200 lineal feet. The 1997 flood event and the high flows experienced in 1998 again put additional stress on the levee system (approximately 1,100 river miles) within the Sacramento River Bank Protection Project. The sustained high water in January/February 2006 caused great concern and instigated an emergency declaration from the Governor of California relative to levee repair. The area protected by the levees comprises over one million acres in which about 50 communities are located; value of improvements (October 2003 prices) to be protected is about \$38 billion and about 2.3 million people live within the flood plain. The levee system enables the use of the flood plain for the benefit of the state and nation. The extremely fertile flood plain lands produce about 6.6 percent of the total agricultural production of the state and over 88 percent of the state's rice production. The Sacramento River Bank Protection Project provides a long-range program of bank protection to protect the levees where serious erosion is occurring and to prevent erosion from undermining additional levee sections in the future. In addition to assuring urgently needed flood protection, the project provides recreation facilities consisting of boat launching facilities, campgrounds and picnic areas needed along the river to meet a rapidly increasing public demand. Since the initial bank protection contract was let in June 1963, about 827,100 lineal feet of bank protection has been provided. Approximately 87,900 lineal feet of bank protection, including 80,000 authorized by WRDA 2007, remains to be placed on the second phase of this project. The local sponsor supports the addition of a third phase, which will require Congressional authorization. A General Reevaluation Report (GRR) is being conducted to address remaining and potential future sites.

FISCAL YEAR 2011: Funds are being used for design and construction of bank protection and habitat mitigation, engineering and design during construction, construction management, and initiation of the Post Authorization Change Report/Environmental Impact Statement/Environmental Impact Report (PACR/EIS/EIR).

FISCAL YEAR 2012: The requested amount will be applied as follows:

Design and construct bank protection and mitigate for habitat loss in addition to constructing 2 advanced mitigation sites and 1 erosion repair site	\$10,000,000
Total	\$10,000,000

Division: South Pacific

District: Sacramento

Sacramento River Bank Protection, California

NON-FEDERAL COSTS: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below.

	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Requirements of Local Cooperation		
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas.	\$ 16,167,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	6,039,000	
Pay 30 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to one-third for remaining work and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	129,391,000	\$1,174,000
Pay 4 percent of the total cost of separable element 2, fish and wildlife mitigation, to bring the total non-Federal share of costs of separable element 2 to 37 percent for work performed, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of this functional portion of the project.	84,000	
Pay 16 percent of the total cost of Separable Element 3 to bring the total non-Federal share of flood control costs to 25 percent and bear all costs of operation and maintenance repair, rehabilitation and replacement of flood control facilities.	1,857,000	18,000
Pay 25 percent of the total cost of Separable Element 4 to bring the total non-Federal share of flood control costs to 25 percent and bear all costs of operation and maintenance repair, rehabilitation and replacement of flood control facilities.	19,062,000	187,000
Total non-Federal Costs	\$172,600,000	\$1,379,000

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

Division: South Pacific

District: Sacramento

Sacramento River Bank Protection, California

STATUS OF LOCAL COOPERATION: Chapter 2188, Statutes of the State of California, approved by the Governor on 21 July 1961, established the State Reclamation Board as the agency to meet the requirements of local cooperation for the project. Assurances of local cooperation were accepted from the Board 5 February 1963. The Reclamation Board signed a Local Cooperation Agreement (LCA) satisfying the requirements of Section 221, Flood Control Act of 1970 (Public Law 91-611) for the remaining Second Phase work in May 1984. In accordance with provisions of the Water Resources Development Act of 1986 for separable project elements initiated after 30 April 1986, new LCAs were executed for separable element 41 on 15 August 1988 and for separable elements 38B, 40, and 42 on 7 December 1988. The LCA for the First Phase Mitigation was signed on 5 June 1990. The current non-Federal cost estimate of \$172,600,000 is the same as the latest estimate presented to Congress (FY2011).

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$366,600,000 is the same as the latest estimate presented to Congress (FY 2011).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: A final Environmental Impact Statement (EIS) was filed on 15 June 1973. A Supplemental Environmental Impact Statement (SEIS) for the Second Phase was filed in February 1989. A final EIS for additional work in Butte Basin, and an update submitted as Supplement 4, were signed in June 1988. An Environmental Assessment/Site Specific Report (EA/SSR) was prepared for Contract 42A and a Finding of No Significant Impacts (FONSI) was signed on 15 February 1994. An EA/SSR was prepared for contracts Lower American River site 3 and 40D and FONSI were signed 2 July 1996 and 3 September 1997, respectively. A Supplemental Design Memorandum No. 8 was prepared for sites along the lower American River and the SEIS was completed in April 1998. Currently, an EA/SSR to meet both Federal and State of California requirements is approved prior to construction of each bank protection contract. The EA for sites to be constructed in 2011 was approved June 2009.

OTHER INFORMATION: Funds to initiate preconstruction planning were appropriated in FY 1962, and for construction in FY 1963. Construction of the first phase was completed in November 1974. Authority to proceed with additional bank protection work, second phase, was provided by Section 202, River Basin Monetary Authorization Act of 1974, Public Law 93-251. The Further Continuing Appropriations Act of 1983, Public Law 97-377, extended the limits of the project to include bank protection along the Sacramento River to the upstream ends of the project levees to Chico Landing (Butte Basin area). The Water Resources Development Act of 1986 modified the first phase of the project to include acquisition of lands for establishment and maintenance of wildlife habitat at a total cost of \$1,410,000 (\$2,120,000 inflated through construction). The last parcel was acquired in FY1997. Re-vegetation has been highly successful and is serving as a model for re-vegetation efforts by others. Monitoring of fish and wildlife habitat and engineering features continues at each site.

The U.S. Fish and Wildlife Service, by letter dated November 7, 1985, issued a Biological Opinion stating that the bank protection work along the Sacramento River from Chico Landing to Red Bluff and in the Butte Basin area would endanger the threatened valley elderberry longhorn beetle. The Service issued a revised opinion on 19 May 1987 that permitted limited rock revetment bank protection to be constructed in the Butte Basin. The potential impact to winter-run salmon has also been a significant concern as the winter-run salmon have experienced an alarming decline since 1969. The National Marine Fisheries Service (NMFS) listed winter-run salmon as a threatened species in November 1990. The winter-run salmon biological data report was completed January 1991. NMFS Biological Opinion dated 28 October 1991 for the winter-run salmon was non-jeopardy but lists recommended conservation measures. Winter-run salmon, along with bank swallows and Swainson's Hawk, are also State listed species and a Biological Opinion was received from California Department of Fish and Game on 18 November 1991 which also recommends conservation measures.

On 23 August 2001, the U.S. Fish and Wildlife Service issued its final Biological Opinion on the Sacramento River Bank Protection Project (SRBPP). The National Marine Fisheries Service released their opinion on 27 September 2001. Both opinions were virtually identical in terms of identifying the SRBPP's effects as

Division: South Pacific

District: Sacramento

Sacramento River Bank Protection, California

OTHER INFORMATION (continued)

jeopardizing the existence of five fish species (Delta smelt, Sacramento splittail, winter-run Chinook salmon, spring-run Chinook salmon, and Central Valley steelhead) listed under the Endangered Species Act in the Sacramento River. With recent collaborative efforts, most repair sites have been self-mitigating.

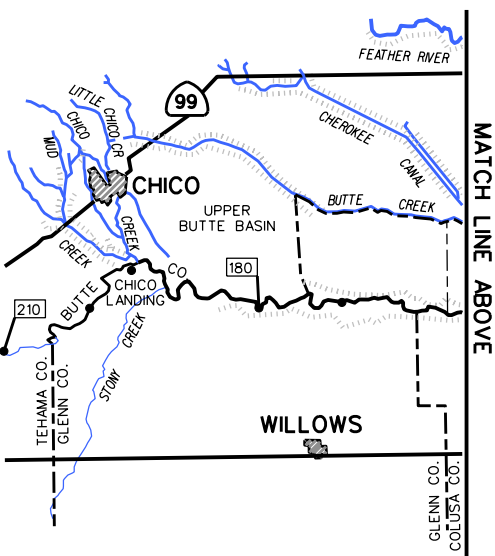
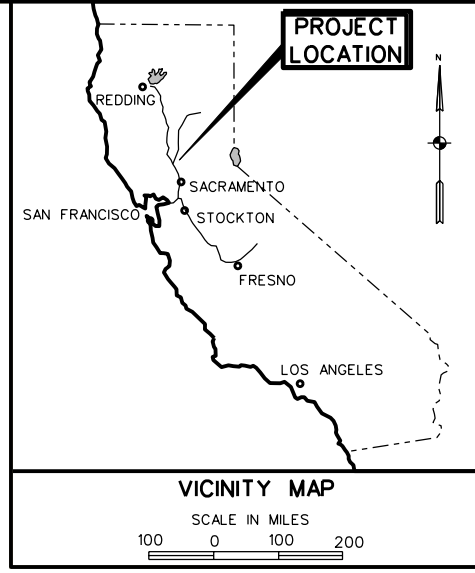
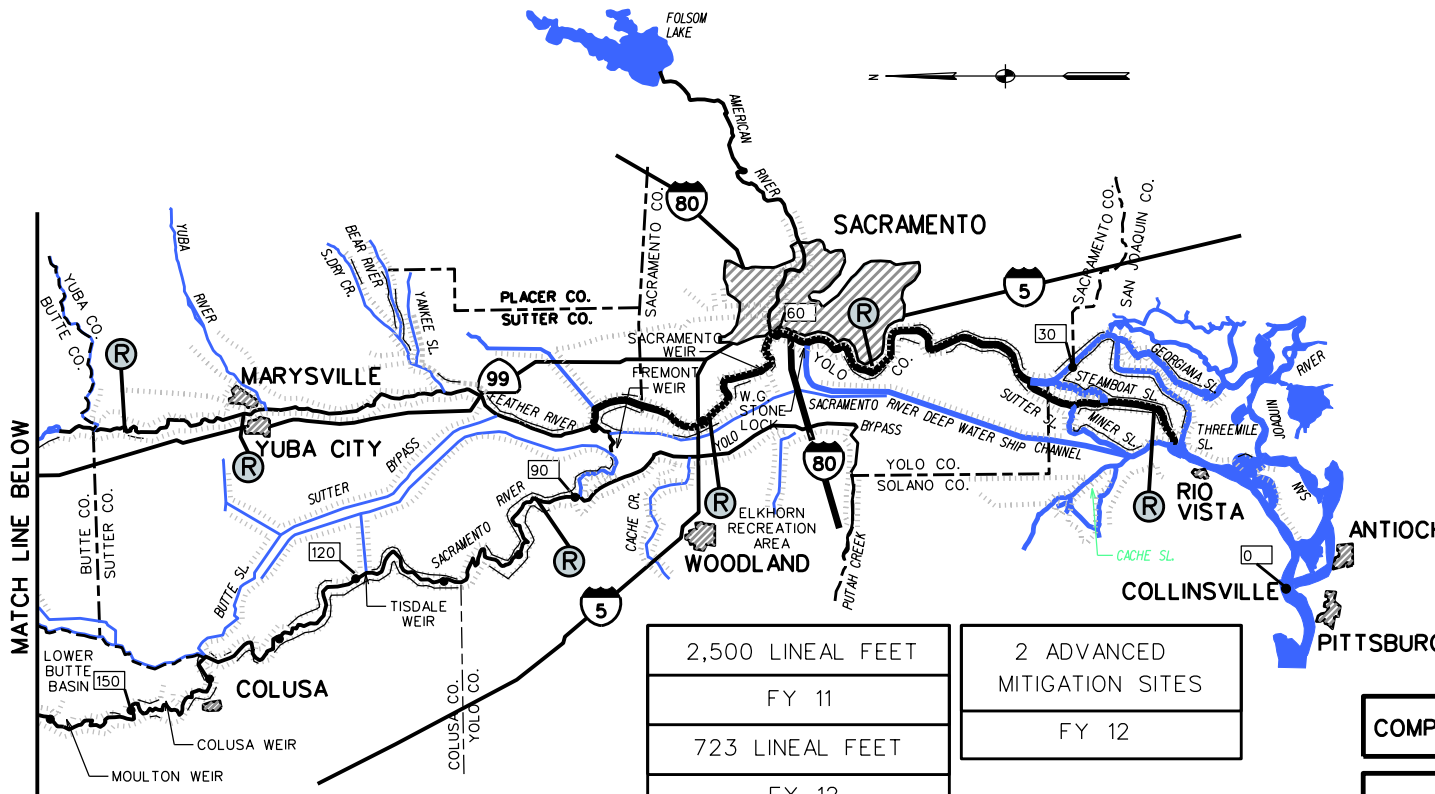
After the February 1986 flood, the Sacramento River System experienced below normal precipitation and flood flows. This led to a lower rate of erosion and a lowered need for expedited bank protection work. However, the storms of 1995 and 1997, plus the sustained high water in 2006, have caused substantial erosion damage and the urgency for bank protection is vital.

The 2005 and 2006 Erosion Inventory Reconnaissance Report identified 57 Critical Erosion Sites which resulted in an emergency declaration by Governor Schwarzenegger. The Department of Water Resources (DWR) and the Corps repaired 33 sites beginning in fiscal year 2006 and completing in fiscal year 2007. During the first quarter of FY 2008, 24 sites (10 DWR led and 14 Corps led) were repaired. Eight sites were constructed in Fall 2008. The state of California has provided accelerated funds with the aid of a Local Cooperation Agreement amendment, executed 5 May 2006, allowing the project to accept funds ahead of the cost share balance, so that work on the sites may proceed unimpeded. Ten new sites were constructed in 2009 totaling 8,200 lineal feet.

The Flood Control Act of 1960 included no quantitative language concerning the benefits or costs but authorized the rehabilitation of 430,000 lineal feet of levee. In 1974 language was added to increase the lineal feet by an additional 405,000 feet. WRDA 2007 authorized an additional 80,000 lineal feet for a total of 915,000 lineal feet. Due to the language in the initial authorization stating that the benefits obviously exceeded the costs, the annual benefits are not available as they were absent from the original authorization and an economic reanalysis has never been performed. Remaining project cost is based on the current estimate of completing the last 87,900 lineal feet (includes the 80,000 lineal feet authorized in WRDA 2007).

A new cost estimate will be developed as part of the Post Authorization Change Report being prepared to address the latest WRDA 2007 authorization of an additional 80,000 linear feet. An EIS and GRR are being prepared to implement this work. The estimated date for completion is July 2012.

The fish and wildlife mitigation cost is estimated at \$31 million.

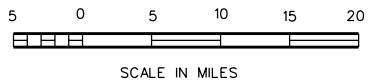


2,500 LINEAL FEET
FY 11
723 LINEAL FEET
FY 12

2 ADVANCED MITIGATION SITES
FY 12

WORK STATUS	
COMPLETED	WORK COMPLETED AS OF 30 SEPTEMBER 2010
11	WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2011
12	WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2012
REMAINING	WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2012

- LEGEND**
- LEVEE SYSTEM AS CONSTRUCTED BY THE CORPS OF ENGINEERS
 - LOCATION OF BANK PROTECTION SITES ACCOMPLISHED UNDER FIRST PHASE OF THE SACRAMENTO RIVER BANK PROTECTION PROJECT
 - RECREATION SITE
 - RIVER MILES



LOCAL PROTECTION PROJECTS (FLOOD CONTROL)

SACRAMENTO RIVER BANK PROTECTION PROJECT CALIFORNIA

SACRAMENTO DISTRICT
SOUTH PACIFIC DIVISION
1 JANUARY 2011

APPROPRIATION TITLE: Construction - Local Protection (Flood Risk Management)

PROJECT: Santa Ana River Mainstem, California (Continuing)

LOCATION: The project is located along a 75-mile reach of the Santa Ana River in Orange, Riverside, and San Bernardino Counties, southeast and adjacent to metropolitan Los Angeles, California.

DESCRIPTION: The plan of improvement provides for construction of the Seven Oaks Dam about 35 miles upstream of the existing Prado Dam, with a gross reservoir storage of 145,600 acre feet; flood plain management of the flood overflow area on the Santa Ana River between Seven Oaks Dam and the existing Prado Reservoir; enlargement of Prado Dam to increase the reservoir storage capacity from 217,000 acre-feet to 362,000 acre-feet; construction of 3.3 miles of channel modifications along Oak Street Drain in Corona; enlargement of the existing 2.4 miles of Mill Creek levee; construction of a detention basin and 2.0 miles of channel modifications along the Santiago Creek; and various means of flood control, including flood plain management, levees, and vertical walled concrete channels along the 30.5 miles of the Santa Ana River from Prado Dam to the Pacific Ocean. In addition, the plan includes recreational development and purchase of lands for mitigation and preservation of endangered species. A project for San Timoteo Creek was added to the Santa Ana River Mainstem project by the Energy and Water Development Appropriation Act of 1988. A special report was approved in May 1994; engineering and design was initiated in Fiscal Year 1991 with funds appropriated for that purpose and was completed in June 1994. Construction was initiated in Fiscal Year 1994. The project was modified by the Water Resources Development Act of 1990, which authorized the Secretary to develop recreational trails and facilities on lands between Seven Oaks Dam and Prado Dam, including flood plain management areas. These recreational features are not included in the current estimate pending development of plans and determination of costs.

AUTHORIZATION: Water Resources Development Act of 1986, Energy and Water Development Appropriation Act, 1988, Water Resources Development Act of 1990, Water Resources Development Act of 1996, and Water Resources Development Act of 2007.

REMAINING BENEFIT-REMAINING COST RATIO: 5.7 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 1.4 to 1 at 7 percent.

INITIAL BENEFIT-COST RATIO: 1.3 to 1 at 8 5/8 percent (FY 1988)

BASIS OF BENEFIT-COST RATIO: The benefit-cost ratio is based on the Economic Update Report dated September 2007 at October 2005 price levels. An economic update is currently underway and preliminary results will be in 2011 and finalized in 2012.

Division: South Pacific

District: Los Angeles

Santa Ana River Mainstem, California

14 February 2011

SPD-46

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST	STATUS (1 JAN 2011)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		\$ 1,251,000,000	Seven Oaks Dam	100	August 1999
Programmed Construction	\$1,250,000,000		Prado Dam	58	December 2015
Unprogrammed Construction	1,000,000		Santiago Creek	10	December 2015
			Mill Creek	100	March 1992
Estimated Non-Federal Cost		\$ 796,000,000	Oak Street Drain	100	September 1994
Programmed Construction	795,000,000		Lwr SAR Rch 9 & SARI Line	45	December 2011
Cash Contributions	102,000,000		Lower Santa Ana Rch 1-8,10	98	December 2011
Other Costs	734,000,000		Marsh	100	March 1991
Reimbursements	(41,000,000)		San Timoteo	99	December 2014
Estimated Non-Federal Cost					
Unprogrammed Construction	\$ 1,000,000		Total Project	83	December 2015
Cash Contributions	1,000,000				
Other Costs	0				
Total Estimated Programmed Construction Costs		2,045,000,000			
Total Estimated Unprogrammed Construction Costs		2,000,000			
Total Estimated Project Cost	2,047,000,000 <u>1/</u>				
Allocations to 30 September 2008	899,383,000				
Allocation for FY 2009		15,500,000			
Allocation for FY 2010		47,810,000			
Recovery Act Allocations to Date		27,911,000			
President's Budget for FY 2011		25,000,000			
Allocations through FY 2011	1,015,604,000				
Budget for FY 2012	25,000,000				
Programmed Balance to Complete after FY 2012	209,396,000				
Unprogrammed Balance to complete after FY 2012		1,000,000			

1/ Reflects \$39,500,000 to be reimbursed to judgment fund for Seven Oaks claim and \$41,000,000 to be reimbursed to sponsor for LERRDS over 45%

Division: South Pacific

District: Los Angeles

Santa Ana River Mainstem, California

PHYSICAL DATA:

SEVEN OAKS DAM:

Dam: Type - Impervious core

Height - 550 feet

Length - Crest Length 2,980 feet

Outlet Works: Gated conduit, 8,000 cfs maximum discharge

Basin Capacity: 145,600 acre-feet

Spillway: Type - Detached overflow, 500 ft wide, unlined

Embankment: Earth and Rock fill

Lands & Damages: Acres - 2,736 existing streambed and undeveloped (mountainous)

Water Quality Study

MILL CREEK

Levee repair: Type - Grouted riprap

Height - 10 feet maximum

Length - 12,500 feet (2.4 miles) of existing
13,600 feet (2.6 miles)

Lands & Damages: Acres – 1661 grazing, wildlife

Floodwall (Top of levee): Type – Concrete

Height - 7.5 feet maximum

Length - 12,600 feet (2.4 miles)

OAK STREET DRAIN:

Channel: Rectangular concrete 3.0 mile

Trapezoidal riprap 0.3 miles

Lands & Damages: 34 acres for rights-of-way

SANTIAGO CREEK:

Channel: Rectangular concrete 500 feet

Trapezoidal riprap 2.0 miles

Reservoir: Buttressed

Basin Capacity: Flood control 4,620 acre-feet (el. 274 to 298)

Lands and Damages: 281.5 acres, reservoir and channel

Division: South Pacific

PRADO DAM:

Dam: Type - Impervious core

Height - 134 feet

Length - 3,050 crest length

Outlet Works: Gated conduits

30,000 cfs maximum discharge

Embankment: Rolled earth fill

Spillway: Type - Detached, overflow concrete, 1,000 feet wide,
578,000 cfs maximum design discharge.

Basin Capacity: 362,000 acre-feet

LOWER SANTA ANA RIVER:

Channel: - 200-450 feet wide,

34 bridges replaced or modified

Relocate sewage and brine line (SARI) Santa Ana River Interceptor Line

- 5.0 miles trapezoidal concrete

- 2.4 miles rectangular concrete

- 15.5 miles trapezoidal grouted riprap

- 0.8 miles rectangular concrete/soft bottom

Lands & Damages: Acres - 2,429.5 for channel (7.4 miles floodway)

Mitigation Lands: Acres - 92-marsh restoration

RECREATION FACILITIES:

LOWER SANTA ANA RIVER: Bicycle/equestrian trail - 32 miles

SANTIAGO CREEK: Trails - Bicycle and equestrian (1 mile)

Rest stop - Concrete bicycle wheel stops

SEVEN OAKS TO PRADO DAM: To be developed

SAN TIMOTEO CREEK – To be developed

District: Los Angeles

Santa Ana River Mainstem, California

SAN TIMOTEO CREEK:
Channel: 5.4 miles trapezoidal concrete

Basins: 18 in-channel and transition chute
Lands & Damages: 60.3 acres for rights-of-way

JUSTIFICATION: Construction of this project will primarily provide protection to lands and improvements within Orange County downstream of Prado Reservoir. A severe flood threat exists in this area, which could cause damages in excess of \$15 billion and could endanger and disrupt the lives of over three million people living or working in the floodplain. Damages upstream of Prado Reservoir could exceed \$450 million. The overflow area comprises 160 square miles of primarily urban development in 15 cities including San Bernardino, Riverside, Anaheim, Orange, Santa Ana, Fountain Valley, Costa Mesa, Huntington and Newport Beach. The greatest potential damage area is the Orange County floodplain below Prado Dam. The flood of 1938 is the largest that has been recorded since accurate stream gages were placed in the basin. With a peak flow at Riverside Narrows of approximately 100,000 cubic feet per second, the flood covered thousands of acres of then predominantly rural Orange County. Although the area was largely agricultural at the time, the flood caused \$4 million in damages (\$141 million at 2009 prices). Following this storm, Prado Dam was constructed at the head of the Santa Ana Canyon, providing effective control of floods for much of the downstream basin. In 1969, when communities upstream of Prado Dam suffered \$85 million in damages, Prado Dam prevented an estimated \$525 million in damages to downstream communities. With current development, damages for a similar flood would be approximately \$4.29 billion, at 2009 prices. Without the project, the level of protection downstream of Prado, primarily in Orange County, is approximately 70 years. With the project, the level of protection downstream of Prado would be increased to 190 years.

Average annual benefits are as follows:

Annual Benefits	Amount
Flood Damage Prevention	\$ 231,801,000
Recreation	282,000
Total	\$ 232,083,000

FISCAL YEAR 2011: The current amount of \$25,000,000 will be applied as follows: award construction contract for Reach 9 Phase 2A, award modifications for Reach 9 Phase 2B, continue Seven Oaks Mitigation, continue design on Prado Spillway and the remaining Prado Interior Dikes.

FISCAL YEAR 2012: The requested amount will be used to:

Fully fund Reach 9 Phase 3 construction contract	\$18,500,000
Fully fund River Road Dike and Floodwall construction contract	6,000,000
Continue Mitigation Seven Oaks Dam multi-species habitat plan	500,000
Total	\$25,000,000

Division: South Pacific

District: Los Angeles

Santa Ana River Mainstem, California

NON-FEDERAL COSTS: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsors must comply with the following requirements listed below.

Requirements of Local Cooperation and Project Cooperation	Annual Payments During Construction And Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation and Replacement Costs
Santa Ana River Mainstem: Provide lands, easements, rights-of-way, and borrow, excavated or dredged material disposal areas.	\$ 170,000,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	180,000,000	
Pay 5 percent cash of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 31 percent, and bear all cost of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	65,000,000	\$ 2,194,000
Pay one-half of the separable costs allocated to recreation and bear all costs of operation, maintenance, repair, rehabilitation and replacement of recreation facilities.	1,000,000	6,000
Reimburse 100 percent of the Federal funds, loaned to the sponsor for work on San Timoteo Creek, within a period of 30 years following the completion of the project, in accordance with section 103 (k) of the Water Resources Development Act of 1986.	6,000,000	
Prado Dam: Provide lands, easements, rights-of-way, and borrow, excavated or dredged material disposal areas.	347,000,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	31,000,000	
Division: South Pacific	District: Los Angeles	Santa Ana River Mainstem, California

Pay 5 percent cash of the costs allocated to flood control to bring the total non-Federal Share of flood control costs to 50 percent, and bear all costs of operation, maintenance, Repair, rehabilitation and replacement of flood control facilities.	37,000,000	200,000
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NON-FEDERAL COSTS: (cont.)

Estimated reimbursement to local sponsor for LERRDS in excess of 45 percent of total project costs for flood control, subject to availability of funds.	(41,000,000)
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Total Non-Federal Costs	\$ 796,000,000	\$ 2,400,000
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The non-Federal sponsors have also agreed to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: Orange, San Bernardino, and Riverside Counties are the local sponsors. In accordance with Memorandum of Agreement executed on 6 December 1987, Orange County contributed \$3 million to assure the project design schedule was maintained. Orange County has received credit for those funds towards their share of the project costs during construction. In addition, Orange County worked with California Department of Transportation (CALTRANS) to relocate some key bridges in Fiscal Year 1988, in advance of project construction. On 14 December 1989, the Local Cooperation Agreement was executed in compliance with the requirements of the Water Resources Development Act of 1986. A supplemental Local Cooperation Agreement was executed on 1 July 1994 for San Timoteo Creek. A draft Local Cost Sharing Agreement for recreation on Santiago Creek has been reviewed and approved by the local sponsor, Orange County, and the Orange County Department of Harbors, Beaches and Parks. On 30 June 1997, the Assistant Secretary of the Army (Civil Works) approved Prado Dam as a separable element. On 30 June 1997, direction was given by the Assistant Secretary of the Army (Civil Works) to proceed in accordance with Section 309 (Water Resources Development Act of 1996) to modify the existing Local Cost Sharing Agreement to reflect this determination and the non-Federal cost-sharing was modified in accordance with section 103(a) (3) of Water Resources Development Act of 1996. A Project Cooperation Agreement for Prado Dam was executed in February 2003.

The current non-Federal cost estimate of \$796,000,000, which includes a cash contribution of \$102,000,000, is an increase of \$268,000,000 from the non-Federal cost estimate of \$528,000,000 noted in the current amended Local Cooperation Agreement dated February 2003, which included a cash contribution of \$59,306,000. Analysis of the non-Federal sponsors' financial capability to participate in the project affirms that Riverside County Flood Control and San Bernardino County Flood Control still have a reasonable plan for meeting their financial commitments. Orange County Flood Control has recently notified the Corps of a possible shortfall of funding land acquisition for the Prado Spillway. Construction of this project will primarily provide protection to lands and improvements within Orange County downstream of Prado Reservoir.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$1,251,000,000 is an increase of \$73,000,000 from the latest estimate (\$1,178,000,000) presented to Congress (FY 2011). This change includes the following items.

Item	Amount
Price leveling, inflation and other adjustments	\$ 7,000,000
Division: South Pacific	District: Los Angeles
	Santa Ana River Mainstem, California

(including contingency adjustments) Post Contract Award and Other Estimating Adjustments	64,000,000
(including contingency adjustments) Schedule Changes	2,000,000
Total	\$73,000,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement was filed with the Environmental Protection Agency in June 1989. The Records of Decision (ROD) for Prado Dam and San Timoteo Creek Reach 3B were executed in January 2002.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1979, and funds to initiate construction were appropriated in FY 1990.

An agreement with Fish and Wildlife Service on Section 7 consultations for endangered species (Eriastrum below Seven Oaks and Least Bell's Vireo at Prado Dam) was reached on the number of acres for mitigation. The final biological opinion necessary for formal conclusion of the consultation was received from Fish and Wildlife Service 22 June 1989.

Coordination with the U.S. Fish and Wildlife Service and the California Department of Fish and Game was initiated early in the planning of alternatives and completed 30 March 1989, which produced a Fish and Wildlife Service Coordination Act Report that was included in the Environmental Impact Statement. These agencies had a role in the determination of project associated impacts as well as mitigation needs and opportunities. Estimated fish and wildlife mitigation costs for Seven Oaks Dam are \$10,000,000 (\$7,500,000 Federal and \$2,500,000 non-Federal), for San Timoteo are \$4,300,000 (\$3,225,000 Federal and \$1,075,000 non-Federal), for Lower Santa Ana are \$21,000,000 (\$15,750,000 Federal and \$5,250,000 non-Federal) and for Prado Basin are \$8,000,000 (\$4,000,000 Federal and \$4,000,000 non-Federal).

Section 104 of the Energy and Water Development Appropriation Act of 1988 authorized "...San Timoteo Creek in the vicinity of Loma Linda for construction as part of the Santa Ana River Mainstem including Santiago Creek Project... the benefits and costs of the San Timoteo project shall be included together with the benefits and costs of the Santa Ana Mainstem including Santiago Creek. The total costs for the Santa Ana Mainstem, including Santiago Creek, is to be raised by \$25,000,000." A special report was approved in May 1994; engineering and design was initiated in Fiscal Year 1991 with funds appropriated for that purpose. Construction was initiated in August 1994 with Federal funds specifically identified in Act Language through 2006 for a total of \$78,400,000.

The project was modified by the Water Resources Development Act of 1990, which authorized the Secretary to develop recreational trails and facilities on lands between Seven Oaks Dam and Prado Dam, including flood plain management areas. These features are not included in the current estimate pending development of plans and determination of costs.

The project was modified by the Water Resources Development Act of 1996, which authorized the Secretary in coordination with the State of California, to provide technical assistance to Orange County, California, in developing appropriate public safety and access improvements associated with a portion of California State Route 71, which has been relocated for the Prado Dam project.

Division: South Pacific

District: Los Angeles

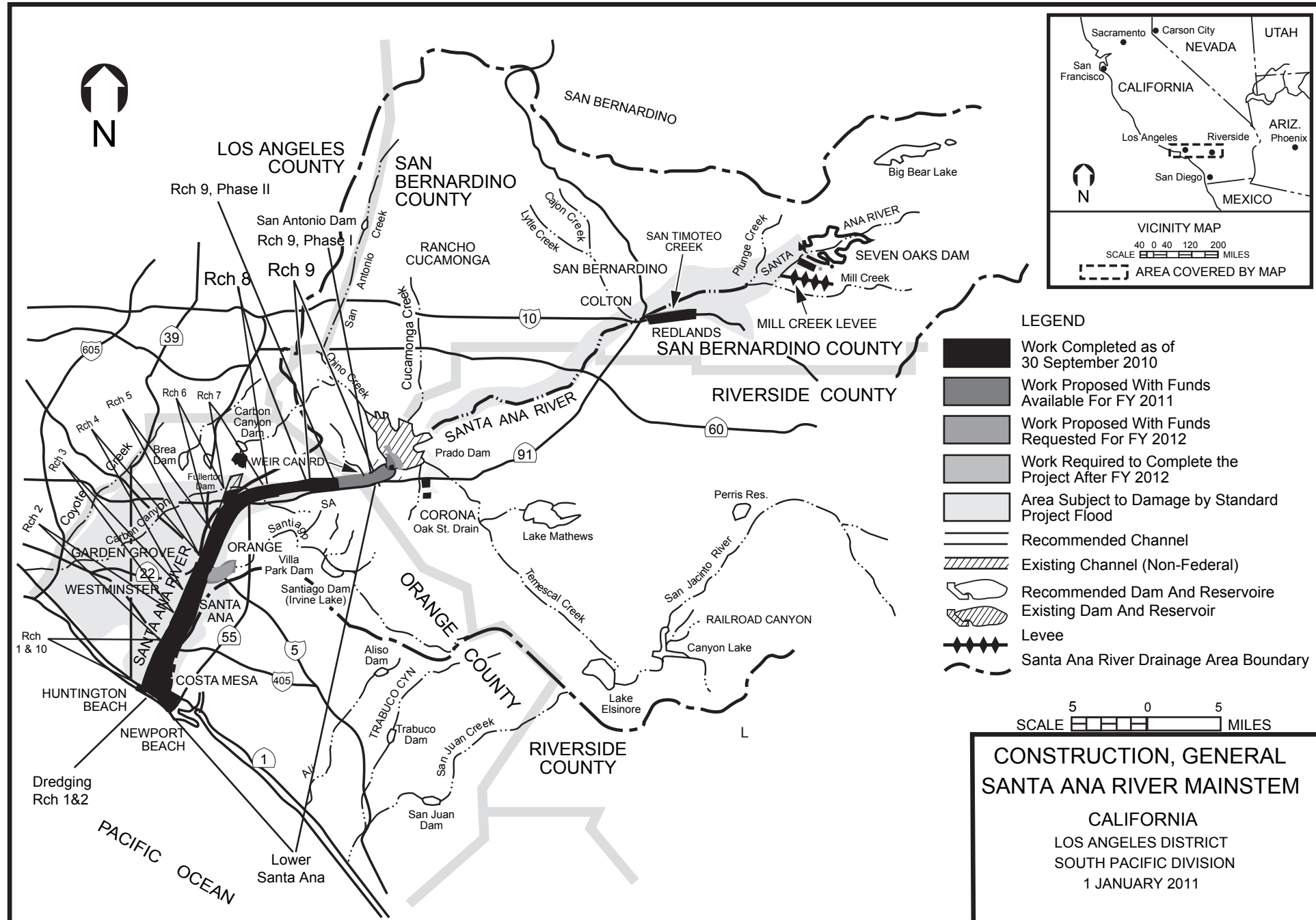
Santa Ana River Mainstem, California

Total Lands, Easements, Rights of Ways, Relocations and Disposals (LERRD) for the Prado Dam project is being estimated above 45 percent of the total project cost for flood control. Upon completion of the project and final accounting, the government, subject to availability of funds, shall reimburse the Non-Federal sponsor for any such value in excess of 45 percent of total project costs to bring the ultimate cost sharing to 50 percent Federal and 50 percent Non-Federal for the Prado Dam Project.

The full operation of Prado Dam at the designed release flow of 30,000 cubic feet per second will be contingent upon completing the relocation of the Santa Ana River Interceptor Line (SARI) and the lower river channel. Congressional language in the Water Resources Development Act of 2007 increased the project cost to OTHER INFORMATION (cont.): \$1,800,000,000 and included the SARI line as an authorized element of the project. This authority sufficiently increased the 902 maximum authorized total project cost to cover the added SARI line relocation, which is a 100% non-federal cost.

There was a delay in awarding the Reach 9 2A contract in FY 2010, because Lands needed to be acquired by the sponsor. This acquisition is still being worked. In FY 2010 the estimated cost was much larger than the available funds, so a Base Award was considered as an option. Since the Lands were not acquired in time, funds were carried over. The Base contract with option is no longer the case, there are enough funds in FY 2011 to award the entire contract.

The status of the Prado Release at design level is being maintained at 5,000 cfs or below; even with the recent storm activity. However, no more than 5,000 cfs can be released until the following construction is complete: of Reach 9 (Phases 2A, 2B & 3) estimated in October 2012, if fully funded; SARI line relocation estimated in April 2013. If these schedules are kept, then the Prado releases should be able to be raised to design level in May 2013.



CONSTRUCTION, GENERAL
SANTA ANA RIVER MAINSTEM

CALIFORNIA
 LOS ANGELES DISTRICT
 SOUTH PACIFIC DIVISION
 1 JANUARY 2011

APPROPRIATION TITLE: Construction – Local Protection (Flood Risk Management)

PROJECT: South Sacramento County Streams, California (Continuing)

LOCATION: The South Sacramento County Streams drainage basin lies south and east of the city of Sacramento. Most of the basin is situated in the Sacramento Valley. The eastern-most parts of the basin are in the lower foothills of the Sierra Nevada. A portion of the basin lies within the Sacramento city limits, south of the city center.

DESCRIPTION: The selected plan would include the following principal flood control features: raising and extending the ring levee around the Sacramento Regional Water Treatment Plant (SRWTP); raising the Beach Stone Lakes and Morrison Creek levees; installing floodwalls (using sheet pile) on Morrison Creek, Elder Creek, Florin Creek and Unionhouse Creek, and retrofitting bridges to lower risk of failure due to flooding. Recreation features include a bicycle and pedestrian trail. Restoration of ecosystem at five sites would increase water quality to open water environments and enhance and expand wetlands, riparian vegetation, grasslands, and woodlands.

AUTHORIZATION: Water Resources Development Act of 1999, Sec. 101(a)(8)

REMAINING BENEFIT-REMAINING COST RATIO: 3.93 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 4.5 to 1 at 7 percent.

INITIAL BENEFIT-COST RATIO: 3.9 to 1 at 6 5/8 percent (FY 2002)

BASIS OF BENEFIT-COST RATIO: Benefits are from the latest available evaluation contained in the Limited Reevaluation Report (LRR) dated December 2004 (October 2003 price level). Current costs and benefits will be addressed in a Post Authorization Change Report (PACR). See OTHER INFORMATION.

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST	STATUS (1 JAN 2011)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	\$ 67,500,000		Entire Project	50	2013 ^{1/}
Estimated Non-Federal Cost	\$ 36,800,000				
Cash Contribution	\$24,263,000				
Other Costs	5,344,000				
Section 104 Credit	7,193,000				
Total Estimated Project Cost	\$104,300,000				

Allocation to 30 September 2008	\$ 42,131,800	
Allocation for FY 2009	11,000,000	
Allocation for FY 2010	1,500,000	
Recovery Act Allocations to Date	0	
President's Budget for FY 2011	4,800,000	
Allocation through FY 2011	59,431,800	88
Budget for FY 2012	5,000,000	95
Programmed Balance to Complete After FY 2012	\$ 3,068,200	
Unprogrammed Balance to Complete After FY 2012	0	

1/ Current authorization.

PHYSICAL DATA

Beach Stone Lakes
 Floodwalls: .4 mile
 Levee Raising: 4.0 miles

New Levee: 1.3 miles
 Levee Improvement: 2.0 miles

Morrison Creek
 Levee Raising: .6 mile
 Levee Improvement: 3.8 miles
 Floodwalls: 3.8 miles

Florin Creek
 Floodwalls: 3.8 miles

Elder Creek
 Levee Improvement: 1.0 mile
 Floodwalls: 2.6 miles

Unionhouse Creek
 Levee improvement: .9 mile
 Floodwalls: 2.0 miles

Bridge Retrofits
 Ecosystem restoration: 266 acres of
 emergent wetlands, riparian woodland,
 oak savannah woodland, and perennial
 grasslands
 Recreation features: 4.5 mile paved

Division: South Pacific

District: Sacramento

South Sacramento County Streams, California

bicycle and pedestrian trail with signs,
fencing, and benches

JUSTIFICATION: Significant portions of the area were flooded in 1952, 1955, 1962, 1963, 1967, 1969, 1973, 1982, 1986, 1995, and 1997. In January 1995, the most intense rainfall recorded in the watershed resulted in record flows on Morrison Creek, resulting in flows near or exceeding the 1 in 100 annual event. Levee failure along Morrison, Unionhouse, Elder, and Florin Creeks and the SRWTP and Beach Stone Lakes levees could result in flooding of more than 14,000 acres. Approximately 41,000 structures are within the 500-year floodplain with an estimated value of \$5.6 billion. Significant development has occurred in the upper basin, in the Elk Grove area, which is increasing the runoff and potential for flooding. The population of the area is over 100,000 and flooding could result in loss of lives, mainly by drowning from rapid inundation in some areas of the flood plain. Once the floodwaters recede, there would be other impacts on public health and safety. The levees along Morrison Creek and tributaries provide less than a 1% annual chance flood event. The selected plan, known as the Consistent High Protection Plan, would provide a greater than a 1% annual chance flood event to all index areas, including Morrison, Elder, Florin and Unionhouse Creeks and to the Beach Stone Lakes and SRWTP levees. A 1% annual chance flood event would result in nearly \$715 million in damages (existing conditions) and more than \$2 billion in damages for a 0.2% annual chance flood event.

The average annual benefits at October 2003 price levels are as follows:

Annual Benefits	Amount
Flood Control	\$23,600,000
Recreation	141,000
Environmental Restoration	0 1/
Total	\$23,741,000

1/ Ecosystem restoration benefits are not measured in dollars; however, restoration included 266 acres of emergent wetlands, riparian woodland, oak savannah woodland, and perennial grasslands.

FISCAL YEAR 2011: Current year funds are being used to continue coordination with the Union Pacific Railroad (UPRR) for concurrence with the design of a 3,000-foot floodwall along Morrison Creek; continue providing oversight of contract to remap floodplains; and issue contract to determine utility locations and re-evaluate Basis of Design in support of preparation of the PACR.

FISCAL YEAR 2012: The budget amount will be applied as follows:

Initiate construction of floodwalls along Unionhouse Creek	\$2,200,000
Initiate design contract for segments east of Franklin Blvd for	

Division: South Pacific

District: Sacramento

South Sacramento County Streams, California

Florin, Elder, Morrison, and Unionhouse Creeks	\$1,000,000
Continue PACR preparation	1,800,000
Total	\$5,000,000

NON-FEDERAL COSTS: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, as amended by Section 202(a) of the Water Resources Development Act of 1996, the non-Federal sponsor must comply with the requirements listed below.

	Annual Payments During Construction and Reimbursements	Operation Maintenance, Repair, Rehabilitation, and Replacement Costs
Requirements of Local Cooperation		
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas.	\$ 4,241,000	\$
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	1,103,000	
Receive credit for prior work accomplished IAW Section 104 of WRDA 86	7,193,000	
Pay 22.8 percent of the costs allocated to flood control and environmental restoration to bring the total non-Federal share of flood control and environmental restoration costs to 35% and bear all costs of operation, maintenance, repair, rehabilitation, and replacement of flood control and environmental restoration facilities.	23,385,000	413,000
Pay one-half of the separable costs allocated to recreation and bear all costs of operation, maintenance, repair, rehabilitation and replacement of recreation facilities.	878,000	42,000
Total Non-Federal Costs	\$ 36,800,000	\$ 455,000
Division: South Pacific	District: Sacramento	South Sacramento County Streams, California

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: The state of California Central Valley Flood Protection Board, in conjunction with the Sacramento Area Flood Control Agency (SAFCA), will act as the non-Federal sponsor for the flood control features of the project. The current non-Federal cost estimate of \$36,800,000 includes a cash contribution of \$24,263,000. As provided in Section 104 of the Water Resources Development Act of 1986 (PL 99-662), SAFCA applied for credit against their share of the design and construction cost of the project for work carried out after the reconnaissance phase consistent with the ultimately authorized plan.

On September 12, 1996, the Assistant Secretary of the Army (Civil Works) approved potential credit for SAFCA, estimated at \$7.1 million. The Section 104 credit amount approved by ASA (CW) in January 2006 was \$7,193,252. On January 15, 1998, SAFCA passed a resolution adopting the Consistent High Protection Plan as the locally preferred plan and indicated their intent to participate as the non-Federal sponsor. This plan would provide a consistent level of protection throughout the study area. SAFCA, along with the State of California Central Valley Flood Protection Board, has established a fund to mitigate project-related hydraulic impacts downstream in the Beach Stone Lakes and Point Pleasant areas. This fund would be approximately \$2 million and be borne 100 percent by the non-Federal sponsor. The Project Cooperation Agreement (PCA) for environmental restoration was signed 18 September 2003 and the PCA for flood control was signed 20 May 2005. The sponsor has a reasonable plan for implementation to meet its financial commitment.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$67,500,000 is the same as the latest estimate presented to Congress (FY 2011).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Final Environmental Impact Statement/Environmental Impact Report was filed with the Environmental Protection Agency on 15 May 1998. A Finding of No Significant Impact regarding the revised design was signed 16 December 2004.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1998 and funds to initiate construction were appropriated in FY 2002. The initial construction contract (contract 1A) for the lower reaches of the project from the Union Pacific Railroad to the Sacramento River was awarded on 14 June 2005 and completed in 2006.

The restoration monitoring contract was completed in FY2008.

Project cost is being updated and will surpass Section 902 limit, and an increased authorization will be required. A PACR is being prepared to quantify the amount of additional authorization required to complete the project and is scheduled for completion in July 2011. The PACR will be a Limited Reevaluation Report, with updated benefits and costs.

Fish and wildlife mitigation costs are currently estimated at \$1,536,000.

Of the \$5,000,000 included in the President's budget, there may be a surplus of \$2,200,000 due to ongoing coordination with Regional Transit to resolve the conflict with the placement of RT Light Rail tracks directly adjacent to project. This has delayed initiating construction of the floodwalls along Unionhouse Creek.

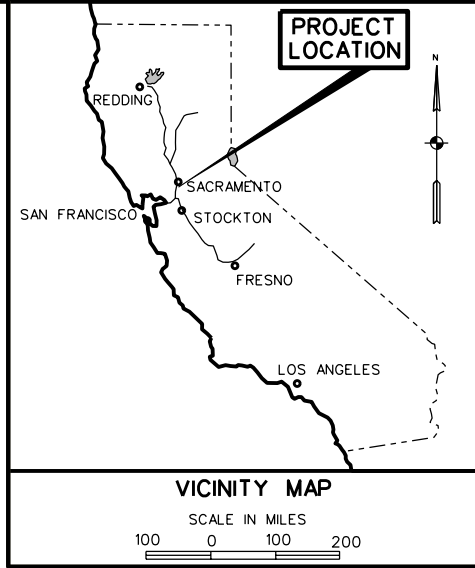
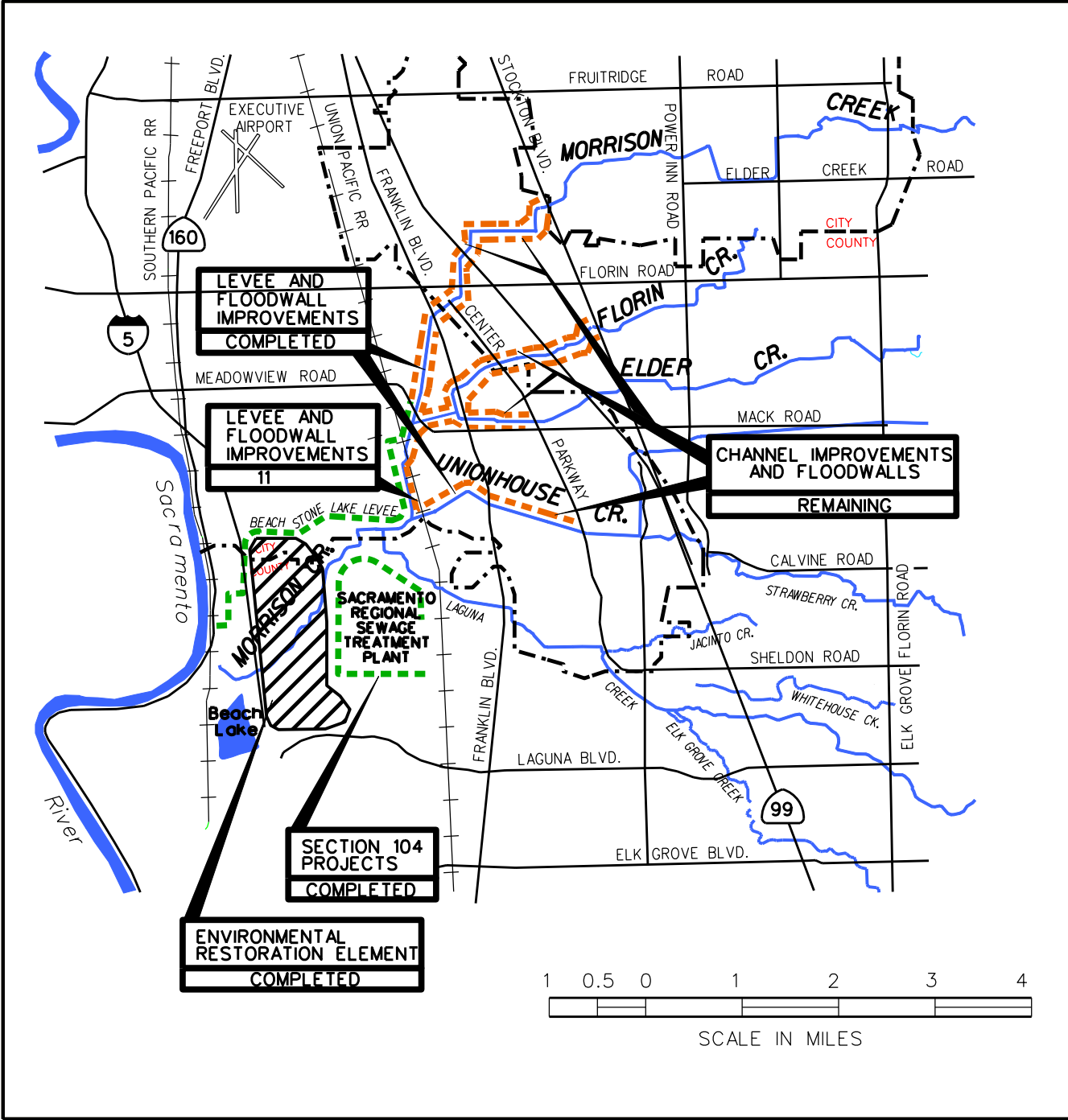
Division: South Pacific

District: Sacramento

South Sacramento County Streams, California

14 February 2011

SPD-64



WORK STATUS

COMPLETED	WORK COMPLETED AS OF 30 SEPTEMBER 2010
11	WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2011
12	WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2012
REMAINING	WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2012

LOCAL PROTECTION PROJECTS (FLOOD CONTROL)
SOUTH SACRAMENTO COUNTY STREAMS CALIFORNIA
 WORK COMPLETED, IN PROGRESS & PROPOSED
 SACRAMENTO DISTRICT
 SOUTH PACIFIC DIVISION
 1 JANUARY 2011

APPROPRIATION TITLE: Construction - Dam Safety Assurance

PROJECT: Success Dam and Reservoir, Tule River, California - Dam Safety Seismic Remediation (Dam Safety Assurance) (Continuing)

LOCATION: The project area is located in Tulare County within the 12,500 square-mile Tulare Lake Basin in the southeastern portion of the San Joaquin Valley about 60 miles north of the city of Bakersfield, California. The Tule River drains about 390 square miles into Success Lake and flows from the lake on to the valley through the city of Porterville, and continues another 25 miles through agricultural areas.

DESCRIPTION: A Dam Safety Remediation Letter Report recommends remedial treatment at Success Dam to prevent failure due to seepage and piping and foundation liquefaction.

AUTHORIZATION: Flood Control Act of 1944 (P.L. 78-534), Sec. 10; Water Resources Development Act of 1986 (P.L. 99-662), Sec. 1203; 2010 Energy and Water Development and Related Appropriations Act, P.L. 111-85), Sec. 125

REMAINING BENEFIT-REMAINING COST RATIO: N/A

TOTAL BENEFIT-COST RATIO: N/A

BASIS OF BENEFIT-COST RATIO: N/A

SUMMARIZED FINANCIAL DATA		(1	STATUS JAN 2011)	PCT CMPL	SCHE	PHYSICAL COMPLETION DULE
Estimated Appropriation Requirements (COE)	\$500,000,000		Entire Project	Not Started		DEC 2017
Future Non-Federal Reimbursement	7,200,000		PHYSICAL DATA			
Estimated Federal Cost (Ultimate)	492,800,000		Dam-earthfill			
Estimated Non-Federal Cost	7,200,000		Gated outlet conduit			
Cash Contribution	\$ 0		Uncontrolled spillway 200 feet wide			
Other Costs	0		Crest length 3,404 feet (Abutment to Abutment)			
Reimbursements	7,200,000		Crest width 22.5 feet			
Total Estimated Project Cost	\$500,000,000					
Division: South Pacific		District: Sacramento	Success Dam and Reservoir, Tule River, California			

SUMMARIZED FINANCIAL DATA (Continued)

ACCUM
PCT OF EST
FED COST

Allocations thru 30 September 2008	\$ 41,730,700	1/	
Allocation for FY 2009	-3,210,000	2/	
Allocation for FY 2010	2,500,000		
Recovery Act Allocations to Date	0		
President's Budget for FY 2011	500,000		
Allocations through FY 2011	41,520,700		8
Budget for FY 2012	18,000,000		12
Programmed Balance to Complete after FY 2012	440,479,300	3/	
Unprogrammed Balance to Complete after FY 2012	\$ 0		

1/ Includes \$344,000 for PED funded under the Operations and Maintenance Appropriation.

2/ Includes reduction of \$2,810,000 in previously appropriated funds redirected for other purposes as authorized by Omnibus Appropriations Act, 2009, P.L. 111-8. Funds of \$400,000 were reprogrammed to another project.

3/ Non-federal sponsor has up to 30 years to repay their share of project costs; therefore appropriations for entire project cost must be programmed.

JUSTIFICATION: An examination of the 1983 report "Dynamic Analysis of Success Dam, Success Reservoir, Tule River, California" (US Army Corps of Engineers, Sacramento District, June 1983) by a technical review conference (TRC) in June 1992 concluded that a maximum credible earthquake would cause extensive loss of strength, slope instability, and deformation over a section of the Success Dam embankment. This damage may be sufficient to result in an uncontrollable loss of the reservoir pool through a breach in the embankment. Similar damage levels may also result from lesser earthquake events. Any breach of the dam should be expected to result in loss of life and damages estimated at \$941 million (2004 prices).

Further studies have indicated that the dam is at greater risk of failure due to seepage and piping. Full remediation of the dam will mitigate both failure modes. The Lower Tule River Irrigation District has been identified as the primary non-Federal cost-sharing sponsor based on their conservation use of the project.

FISCAL YEAR 2011: Current year funds in the amount of \$500,000 funds will be used to complete the Remediation Letter Report, begin Independent External Peer Review (IEPR), obtain a Record of Decision for the Environmental Impact Statement (EIS) and acquire a portion of critical real estate for the project.

FISCAL YEAR 2012: The requested amount will be applied as follows:

Acquisition of real estate for relocation	\$ 8,000,000
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Division: South Pacific

District: Sacramento

Success Dam and Reservoir, Tule River, California

Purchase properties for fill material for dam and environmental mitigation	7,000,000
Complete 90% Design Documentation Report; planning, engineering and design	3,000,000
Total	\$18,000,000

NON-FEDERAL COST: In accordance with the cost-sharing and financing concepts reflected in the Water Resources Development Act of 1986, as amended, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Reimb	Payment During Construction and Rehabilitation, and Replacements	Annual Operation, Maintenance, Repair, and Replacement Costs
Reimburse 15 percent of the costs of modification allocated to irrigation water supply (9.5% of total project cost) within a period of 30 years following completion of construction.		\$7,200,000	
Total Non-Federal Costs	\$7,200,000		

The non-Federal sponsor has agreed to reimburse its share of construction costs within a period of 30 years following completion of construction in accordance with the Water Resources Development Act of 1986 and Public Law 98-404.

STATUS OF LOCAL COOPERATION: In accordance with the Water Resources Development Act of 1986 and Public Law 98-404 the sponsor is required to sign a Cost-Sharing Agreement with the Department of Interior prior to construction.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$500,000,000 is the same as the latest estimate presented to Congress (FY 2011). Review of cost estimate is scheduled for FY 2011.

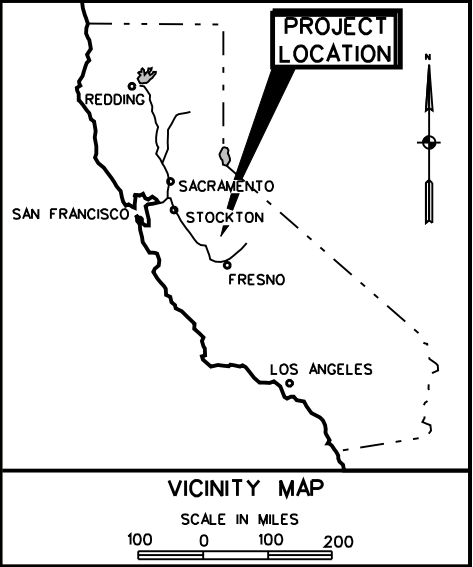
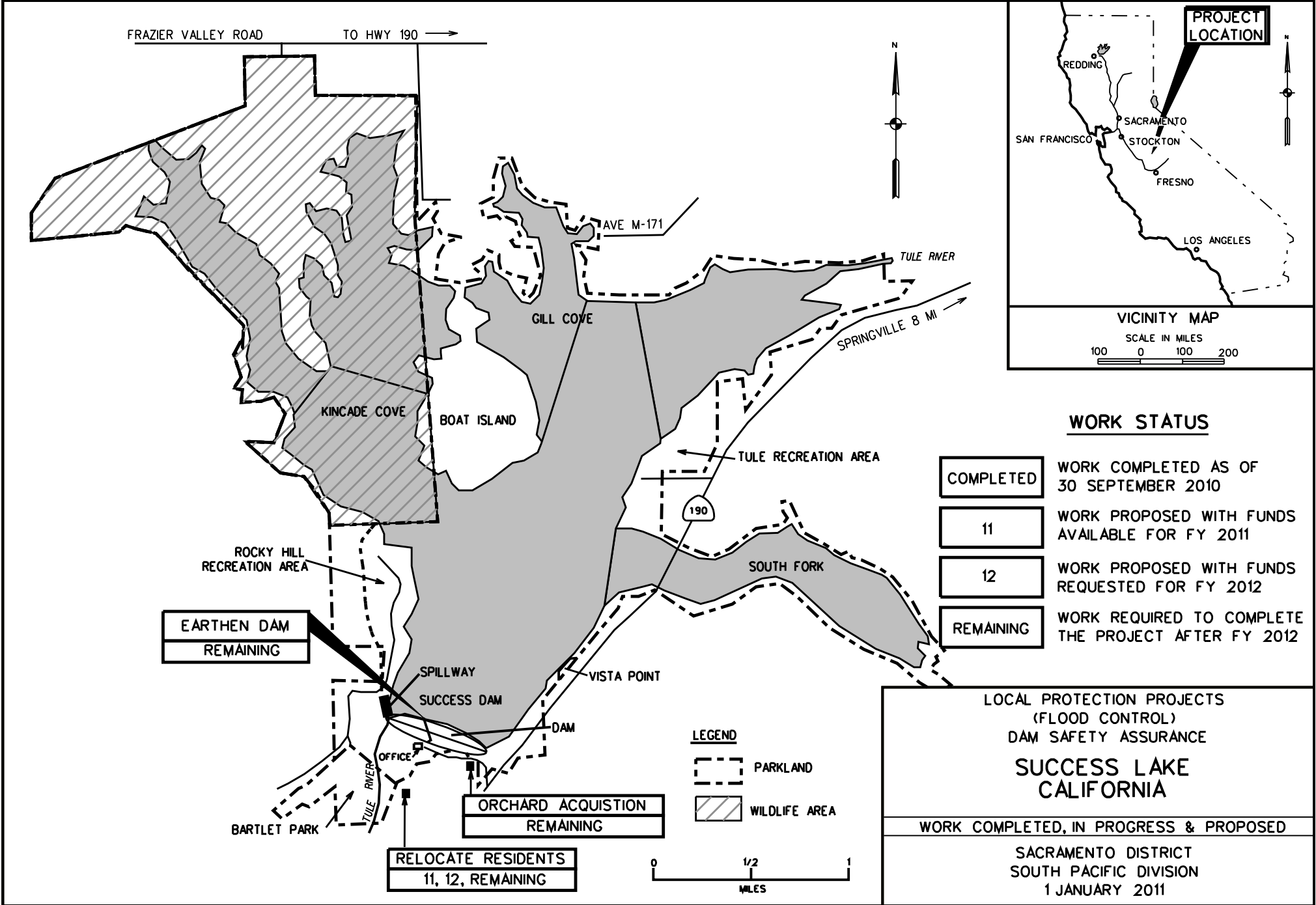
STATUS OF ENVIRONMENTAL IMPACT STATEMENT: Final EIS has gone through Agency Technical Review (ATR) and is awaiting an Independent External Peer Review (IEPR).

Division: South Pacific

District: Sacramento

Success Dam and Reservoir, Tule River, California

OTHER INFORMATION: The Success Dam, Success Lake, Tule River, California Dam Safety Assurance Program Evaluation Report dated January 1999 was approved on 7 May 1999. Following approval of the report, preconstruction, engineering and design was initiated using Operations and Maintenance appropriation funding. Construction funds were initially appropriated in FY 2000. The pool operating restriction will have to remain in place until remediation is completed. The authorized spillway raise project will be on hold until the remediation project is completed. The Energy and Water Development and Related Appropriations Act 2010, (P.L. 111-85), Sec. 125 authorized the Secretary of the Army to acquire 24 parcels of land consisting of approximately 235 acres located in Tulare County, for the Dam Safety Seismic Remediation project at Success Dam, provided that the lands shall be available for use in connection with any activity carried out at the Success Dam and Reservoir. Federal interest in acquisition of three (3) parcels was documented and approved in the Real Estate Design Memorandum dated 21 December 2010.



WORK STATUS

COMPLETED	WORK COMPLETED AS OF 30 SEPTEMBER 2010
11	WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2011
12	WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2012
REMAINING	WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2012

LOCAL PROTECTION PROJECTS (FLOOD CONTROL) DAM SAFETY ASSURANCE

SUCCESS LAKE CALIFORNIA

WORK COMPLETED, IN PROGRESS & PROPOSED

SACRAMENTO DISTRICT
SOUTH PACIFIC DIVISION
1 JANUARY 2011

01 July 2010
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APPROPRIATION TITLE: Construction - Local Protection (Flood Risk Management)

PROJECT: Yuba River Basin, California (Continuing)

LOCATION: The project is located in Sutter and Yuba counties approximately 50 miles north of Sacramento. Communities within the project area include Marysville, Yuba City, Linda, and Olivehurst.

DESCRIPTION: Evaluations of the levees in the Marysville/Yuba City area identified additional levee improvements are necessary. The project includes three main reaches. Reach 3, is the Marysville Ring Levee, element comprises improvements, including construction of slurry walls and berms, to the ring levee protecting the city of Marysville from Yuba River, Feather River, and Jack Slough flooding. Reach 3 is broken into four phases. Construction of phase one was initiated in FY 2010. In addition to the ring levee, the Yuba River Basin Project includes levee strengthening to the left bank of the Yuba River to the Feather River, and strengthening of the Feather River left levee downstream of the Yuba River confluence (Reach 1). This additional work provides flood protection to the communities of Linda and Olivehurst and Reclamation District 784 (Reach 2).

AUTHORIZATION: Water Resources Development Act of 1999 (P.L. 106-53), Sec. 101 (a) (10); Water Resources Development Act of 2007 (P.L. 110-114), Sec. 3041

REMAINING BENEFIT-REMAINING COST RATIO: 1.96 to 1 at 7 percent

TOTAL BENEFIT-COST RATIO: 1.44 to 1 at 7 percent

INITIAL BENEFIT-COST RATIO: 2.3 to 1 at 4 3/8 for Reach 3, Marysville Ring Levee

BASIS OF BENEFIT-COST RATIO: Initial benefits are from the latest available evaluation contained in the Yuba River Basin Investigation, California, Feasibility Report dated April 1998 at October 1997 price levels, and approved in the Chief's Report dated November 1998. The total benefit-cost ratio represents the update from the original report for Reach 3, Marysville Ring Levee separable element, as reported in the preliminary Economic Reevaluation Report (August 2010), as 2.3 at 4 3/8% and 1.44 at 7% only. There is an ongoing General Reevaluation Report (GRR) evaluating the economics for the entire proposed project.

Division: South Pacific

District: Sacramento

Yuba River Basin, California

14 February 2011

SPD-71

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST	PHYSICAL STATUS (1 JAN 2011)	PERCENT COMPLETE	COMPLETION SCHEDULE
Separable Element 1 – Reach 3 (Marysville Ring Levee)						
Estimated Federal Cost		\$60,125,000		Reach 3	8	TBD
Estimated Non-Federal Cost		32,375,000		Reaches 1 & 2	1	TBD
Cash Contribution	\$28,942,000					
Other Costs	3,433,000					
Separable Element 2 – Reaches 1 and 2 (Reclamation District 784 to include Linda and Olivehurst)						
Estimated Federal Cost		\$45,106,000				
Estimated Non-Federal Cost		24,288,000				
Cash Contribution	\$21,767,000					
Other Costs	2,521,000					
Total Separable Element 2 Cost		\$69,394,000				
SUMMARIZED FINANCIAL DATA (Continued)			ACCUM	PHYSICAL	PERCENT	COMPLETION
			PCT OF EST	STATUS	COMPLETE	SCHEDULE
			FED COST	(1 JAN 2011)		
Total Project						
Estimated Federal Cost		\$105,231,000				
Estimated Non-Federal Cost		56,663,000				
Cash Contribution	\$50,709,000					
Other Costs	5,954,000					
Total Project Cost		\$161,894,000	1/			
Division: South Pacific		District: Sacramento			Yuba River Basin, California	

Allocations to 30 September 2008	\$ 6,438,000			Levee Improvements:
Allocation for FY 2009	15,101,522	2/		Slurry Walls (Reaches 1 and 2) – 6.7 miles
Allocation for FY 2010	1,938,000			Toe Drains (Reaches 1 and 2) - 9.0 miles
Presidents Budget FY 2011	0			Berms (Reaches 1 and 2) - 9.5 miles
Allocations through FY 2011	24,637,522	2/3/	27	Slurry walls and berms along ring
Budget for FY 2012	2,000,000		30	levee (Reach 3) – 5 miles
Programmed Balance to Complete after FY 2012	64,662,478			
Unprogrammed Balance to Complete after FY 2012	\$ 13,931,000	4/		

1/ Fully funded estimate per the final EDR dated 12 April 2010

2/ Includes American Recovery and Reinvestment Act (ARRA) funding of \$11,991,522.

3/ Approved waiver amount under 2011 Continuing Appropriations Act thru 4 March 2011 is \$1,160,000.

4/ Derived from preliminary costs associated with General Reevaluation Report vs. the authorized 902 limit of \$140.5M (\$91.3M federal, \$49.2M non-federal)

JUSTIFICATION: Evaluations of the Yuba River basin area have identified that additional levee improvements to the existing system are necessary to obtain higher levels of flood protection. Limited upstream storage capacity, high runoff peaks, and combined river and tributary flows have stressed existing levees and flood control systems. The principal urban centers within the project area include Marysville and Yuba City with populations of 11,622 (July 2009) and 42,500 (July 2007), respectively. The Marysville and Yuba City area has experienced at least six major floods which include the floods of November 1950, December 1955, December 1964, January 1965, February 1986 and January 1997, which were the most widespread and destructive. Record floodflows occurred with the 1955 flood and resulted in the loss of 37 lives when a levee on the Feather River south of Yuba City failed. Modifications to flood protection facilities in the intervening 10 years, including partial completion of the state's Oroville Dam project, helped prevent damage during the 1964-65 floods that may have exceeded floodflows of the 1955 event. Approximately 100,000 acres of land were inundated during the 1955 event. Despite existing flood protection to the area, it is still vulnerable to catastrophic flooding as demonstrated by the February 1986 event. During the 1986 flood, the south levee on the Yuba River failed, inundating the towns of Linda and Olivehurst to depths of approximately 10 feet. More than 24,000 people were evacuated and damages to property were estimated at \$95M. The floods of January 1997 caused a levee break on the Feather River that was stabilized using emergency construction authority. However, over twenty square miles of land were inundated which included the Yuba City airport, roughly 800 homes, and two major highways (65 and 70). Approximately 15,000 people were evacuated and three lives were lost. Total damage of the 1997 event was estimated at \$82.4M.

The Reach 3, Marysville Ring Levee includes constructing about 5 miles of slurry walls and berms along the ring levee surrounding the city of Marysville. Estimated annual flood damages of \$8.8M and average annual benefits, all flood control, estimated at \$5,379,000 are contained in the Yuba River Basin Investigation, California, Feasibility Report dated April 1998 at October 1997 price levels. Reach 3, Marysville Ring Levee average annual damages, estimated at \$11.8M, and average annual benefits, estimated at \$10.7M, are contained in the Marysville Ring Levee preliminary ERR dated August 2010.

Division: South Pacific

District: Sacramento

Yuba River Basin, California

The original project would provide flood risk management to Linda/Olivehurst (Reach 1) and the remaining Reclamation District 784 (Reach 2) by constructing or deepening 6.7 miles of slurry walls, deepening 9 miles of toe drains, and constructing or modifying 9.5 miles of berms along sections of the Yuba and Feather Rivers. These areas are currently being re-evaluated under the General Reevaluation Report. The entire study area that will be managed by the levees comprise over 46,000 acres, mostly agriculture, about 12,000 structures, primarily residences, with a population of about 37,000.

FISCAL YEAR 2011: Current year funds are being used to oversee construction of the Reach 3, Marysville Ring Levee, phase one contract initiated with ARRA funds, continue design of the next phase of the Marysville Ring Levee and continue the GRR.

FISCAL YEAR 2012: The requested amount will be applied as follows:

Continue design of next phases of Marysville Ring Levee	\$2,000,000
Total	\$2,000,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, as amended by Section 202 (a) of the Water Resources Development Act of 1996, the non-Federal sponsor must comply with the requirements listed below:

	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement
Requirements of Local Cooperation		
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas.	\$ 5,954,000	
Pay 31.3 percent of the costs allocated to flood control to bring the total non-federal share of flood control costs to 35 percent, as determined under Section 103 (m) of the Water Resources Development Act of 1986 as amended by Section 202 (a) of the Water Resources	50,709,000	\$8,000
Division: South Pacific	District: Sacramento	Yuba River Basin, California

Development Act of 1996 to reflect the non-federal sponsor's ability to pay as reduced for credit allowed based on prior work (\$2,700,000 authorized under Section 104 of the Water Resources Development Act of 1986), and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.

Total Non-Federal Costs	\$56,663,000	\$8,000
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The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: The State of California Central Valley Flood Protection Board is the non-Federal sponsor for the project. The current non-Federal cost estimate of \$56,663,000 includes a cash contribution of \$50,709,000. A firm commitment for a cash contribution has been made by the sponsor. The ASA(CW), letter dated 3 April 2009, approved the sponsor's request to exercise Section 103 (L) of the WRDA 1986, deferring the sponsor's cash contribution of the Reach 3, Marysville Ring Levee separable element for up to one year. The Project Partnership Agreement was signed for the Reach 3, Marysville Ring Levee (Separable Element 1) 21 July 2010. Further non-Federal Sponsor payment deferral options are currently under consideration by the Agency. Covered under the preliminary General Reevaluation Report, the current non-federal cost estimate reflects credits of \$2,700,000 for deepening the slurry wall of Reaches 1 and 2 for prior work pursuant to Section 104 of the Water Resources Development Act of 1986. The Secretary has approved potential crediting for this work under the provisions of Section 104 of Water Resources Development Act of 1986, pending the final outcome for the GRR.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$105,231,000 is the initial estimate being presented to Congress.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement/Environmental Impact Report was filed with the Environmental Protection Agency in April 1998. An Environmental Assessment was completed and resulted in a Finding of No Significant Impact (FONSI) signed 14 April 2010.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in Fiscal Year 1998. Construction funds were first received in Fiscal Year 2003.

The mitigation requirements for impacts to the environment from construction include 2.98 acres of woodland habitat. In accordance with the Yuba River Basin Investigation, California Feasibility Report dated April 1998; the mitigation requirement could be met by using credit from the existing mitigation site for Phase II of the System Evaluation, Marysville/Yuba City Levee Reconstruction Project. This credit resulted from excess mitigation acreage developed for Phase II OTHER INFORMATION (Cont): of the System Evaluation. Mitigation costs are yet to be determined until a footprint is established for the un-designed area. There is no mitigation for the first construction contract on Phase 1. Additionally, the Yuba River Basin Investigation, California Feasibility Report dated April 1998 designated the Reach 3, Marysville Ring Levee as a separable element.

Division: South Pacific

District: Sacramento

Yuba River Basin, California

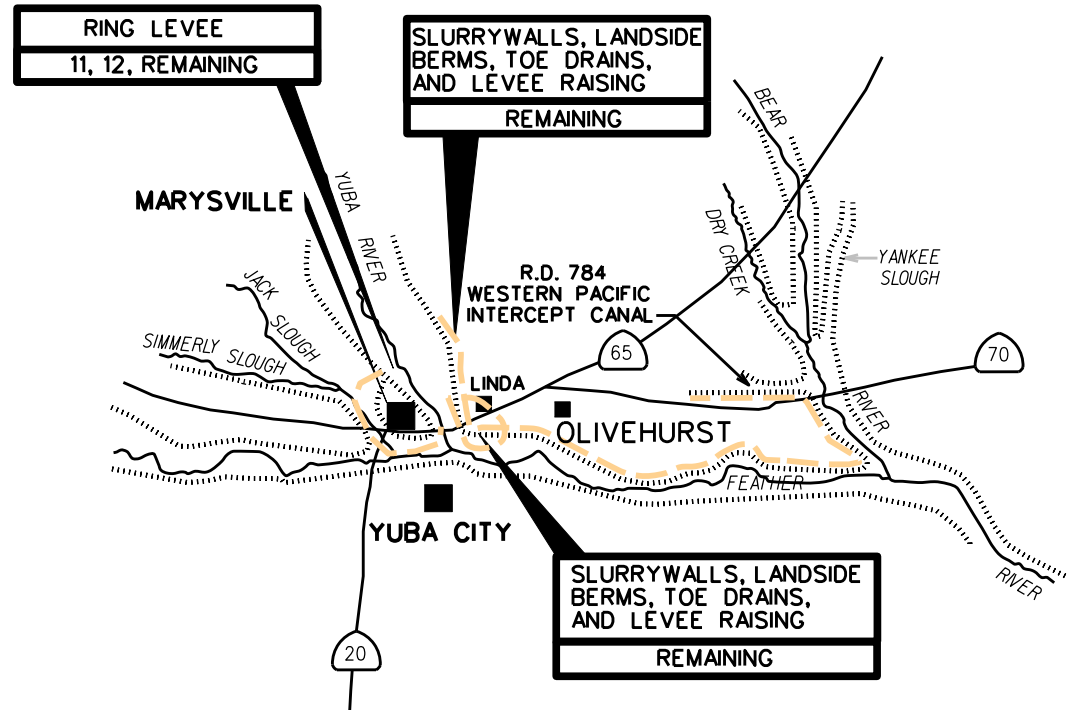
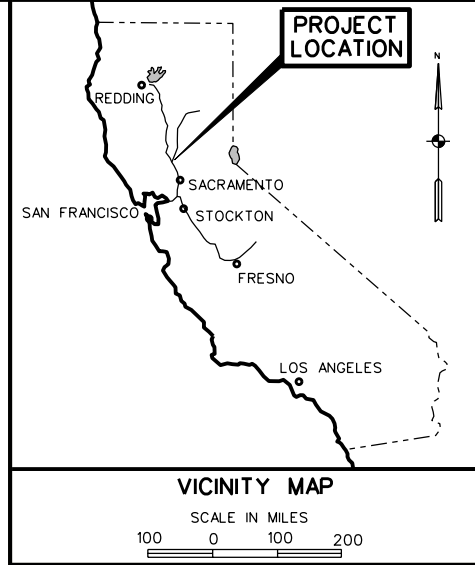
14 February 2011

SPD-75

American Recovery and Reinvestment Act funding of \$11,991,522 was used to initiate the first construction phase of the Marysville Ring Levee separable element of the Yuba River Basin Project. Approval to proceed with construction of the Marysville Ring Levee Separable Element, while the remainder of the Yuba River Basin GRR study area remains under investigation, was given 12 February 2008. All Ring Levee design and cost changes have been reported, and economic benefits updated, in the EDR dated 12 April 2010. The benefit cost ratio for the Marysville Ring Levee separable element, as reported in the preliminary Economic Reevaluation Report (August 2010), is 2.3 at 4 3/8% and 1.44 at 7%. The flood rate and depth based on a levee failure during a 60-year event could reach 10 feet in 4 hours. The risk to life stems from extreme cold water. In 49 degree water, a person reaches unconsciousness in 30 to 60 minutes with an expected time of survival of 1 to 3 hours.

During the initial design of Reaches 1 and 2, it was concluded that deeper slurry walls and other measures to control seepage not anticipated during the original feasibility phase will increase the cost and scope. The local sponsor has requested a GRR be prepared for Congressional authorization to increase cost and scope. This GRR is evaluating the increased costs as a result of underseepage issues identified at initiation of pre construction engineering and design (PED), inclusion of the Plumas Lakes Specific Plan development area, and considering ecosystem restoration as a project purpose. The Chief's report is scheduled for completion in July 2012. The Three Rivers Levee Improvement Authority has completed construction of some flood damage reduction features and will be seeking Federal reimbursement. They are also constructing a setback levee in southern Yuba County.

The preliminary total project costs as stated in the upcoming Alternative Formulation Briefing scheduled for March 2011, are \$161,894,000. These costs exceed the authorized Section 902 maximum cost limit of \$140,500,000. The construction of the Reach 1, Marysville Ring Levee can be completed within the authorized limit (\$105,231,000 per the 12 April 2010 EDR). The remainder of the Yuba River Project construction will be deferred pending completion of the GRR and reauthorization.



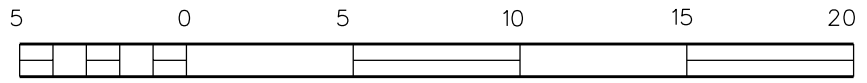
WORK STATUS

COMPLETED	WORK COMPLETED AS OF 30 SEPTEMBER 2010
11	WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2011 ♦
12	WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2012
REMAINING	WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2012

♦ INCLUDES AMERICAN RECOVERY AND REINVESTMENT ACT FUNDS

LEGEND

- PROJECT LEVEE
- LOCATION OF LEVEE WORK



SCALE IN MILES

LOCAL PROTECTION PROJECTS (FLOOD CONTROL)

YUBA RIVER BASIN CALIFORNIA

WORK COMPLETED, IN PROGRESS & PROPOSED

SACRAMENTO DISTRICT
SOUTH PACIFIC DIVISION
1 JANUARY 2011

Navigation

Investigations

APPROPRIATION TITLE: Investigations, Fiscal Year 2012

Division: South Pacific

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2009 \$	Allocation FY 2009 \$	Allocation FY 2010 \$	President's Budget FY 2011 \$	Tentative Allocation FY 2012 \$	Additional to Complete After FY 2012 \$
SURVEYS – CONTINUING (Navigation)							
Los Angeles County DMMP/DMMF, CA Los Angeles District	2,272,000	2,192,000	0	0	0	80,000	0

The Los Angeles River Estuary (Long Beach), Port of Long Beach, Port of Los Angeles, and Marina del Rey are located within the coastal waters of Los Angeles County. All four areas have a need for the removal and disposal of contaminated dredged sediments. The Port of Los Angeles, Port of Long Beach, City of Long Beach and County of Los Angeles (Marina del Rey) collectively could generate a total of 2.5M cubic yards of contaminated dredged sediment over the next 5 years. The project will create regional strategy with regulatory approval for removing the majority of sediments managing the disposal of contaminated sediments from multiple projects and identifying multi-user disposal site for receipt of these sediments. Failure to dredge contaminated material may result in economic hardship for the ports, the marina, and the City of Long Beach. Contaminated sediments in Marina del Rey, the Los Angeles River Estuary, and the Ports of Los Angeles and Long Beach must be removed to ensure navigational safety and to provide the port expansion. Permanent disposal sites are not available and the continued buildup of contaminated sediments raises concerns of potential impact on public health and the health of the marine environment. Safe navigation within small craft harbors will be jeopardized by shoaling that cannot be removed and disposed of safely and economically, and the nation's largest, and most productive port complex will not be able to meet ever-increasing demands. The County of Los Angeles, the Port of Los Angeles, and the City of Long Beach, the local sponsors, signed the Feasibility Cost Sharing Agreement in September 2002. The study is also being referred to as the Los Angeles County Dredge Material Management Framework (DMMF).

Funds requested for Fiscal Year 2012 will be used to complete the feasibility phase of the study. The estimated cost of the feasibility phase is \$4,386,000 which will be shared on a 50-50 percent basis by the Federal and non-Federal interests.

Total Estimated Study Cost	\$4,465,000
Reconnaissance Phase (Federal)	79,000
Feasibility Phase (Federal)	2,193,000
Feasibility Phase (Non-Federal)	2,193,000

The reconnaissance phase completed September 2002. The feasibility study is scheduled to complete in September 2012.

Construction

APPROPRIATION TITLE: Construction, General - Channels and Harbors (Navigation)

PROJECT: Oakland Harbor, California (50-ft) (Continuing)

LOCATION: Oakland Harbor is located in the city of Oakland, California, on the eastern shore of central San Francisco Bay immediately south of the San Francisco-Oakland Bay Bridge.

DESCRIPTION: The project consists of deepening the 4 mile Inner Harbor and 3.4 mile Outer Harbor channels, including the respective turning basins, to 50 feet; widening of channels at various locations; and widening of the Inner and Outer turning basins. Approximately 12.8 million cubic yards of excavated dredged material will require disposal. The Middle Harbor Enhancement Area (MHEA) will use about 7 million cubic yards to create 190 acres of shallow water and sub-tidal habitat in an area no longer needed for navigation purposes; approximately 2.6 million cubic yards would be placed at the former Hamilton Army Airfield in Novato, California, as part of a separately authorized tidal wetlands restoration project; approximately 2.9 million cubic yards would be disposed at the existing Montezuma Wetlands Restoration Project (MWRP) in the northeast portion of Suisun Bay, and approximately 0.3 million cubic yards would be transported to the Vision 2000 upland site in the Inner Harbor. Previously authorized deepening of the 4 mile Inner Harbor and 3.4 mile Outer Harbor to 42 feet deep was completed in July 1998.

AUTHORIZATION: Water Resources Development Act of 1999, § 101(a)(7), Pub. L. No. 106-53, 113 Stat 269, 275.

REMAINING BENEFIT - REMAINING COST RATIO: Not applicable because project construction is substantially completed.

TOTAL BENEFIT - COST RATIO: 5.0 to 1.0 @ 7 percent.

INITIAL BENEFIT - COST RATIO: 8.1 to 1.0 @ 7 percent.

BASIS OF BENEFIT - COST RATIO: Benefits are from the latest available evaluation included in the Chief of Engineer's report approved in April 1999 at 1998 prices. A recent economic evaluation in January 2010 reflects that the Average Annual Benefits are now \$165,000,000 from \$175,122,000 and the total project cost of \$423,397,000 reflects a new BCR of 5.0 at 7% based on October 2009 prices.

Division: South Pacific

District: San Francisco

Oakland Harbor, California (50-ft)

14 February 2011

SPD-82

ACCUM		PCT OF EST	STATUS	PCT	PHYSICAL
SUMMARIZED FINANCIAL DATA		FED COST	(1 Jan 2011)	CMPL	COMPLETION
					SCHEDULE
Estimated Federal Cost (COE)	\$247,430,000		Entire Project	95	2016
Estimated Federal Cost (USCG)	300,000				
Estimated Total Federal Cost	247,730,000				
PHYSICAL DATA					
Estimated Non-Federal Cost	\$185,595,000		Channels: Deepen the 4 mile Inner Harbor and 3.4 mile Outer Harbor channels to 50 feet; Widen various locations.		
Cash Contribution	\$ 89,938,000		Turning Basins: Widen Inner and Outer Basins and deepen to 50 feet.		
Other Costs	95,657,000		Habitat: Create 190 acres of shallow water and sub-tidal habitat.		
Total Estimated Project Cost	\$433,325,000				
Allocation to 30 September 2008	204,426,000				
Allocation for FY 2009	25,092,000				
Allocation for FY 2010	1,000,000				
Recovery Act Allocations to Date	7,800,000				
President's Budget for FY 2011	4,330,000				
Allocation through FY 2011	242,648,000	99			
Allocation Requested for FY 2012	350,000	1			
Programmed Balance to Complete after FY 2012	4,432,000				
Unprogrammed Balance to Complete after FY 2012	0				

Division: South Pacific

District: San Francisco

Oakland Harbor, California (50-ft)

JUSTIFICATION: The Port of Oakland services about 85 percent of all general cargo moving through the Golden Gate, 95 percent of which is containerized. Major Imports include any cargo which can be shipped via container, including electronics, mercantile, raw cotton, animal feed, meat, coffee, tea and spices, iron and steel, wood, lumber, sundries, etc. Basically all cargo, excluding bulk elements such as grain, oil, and other bulk materials, can be shipped in container boxes and will be shipped from Asia to the Midwest and beyond, through the Port of Oakland. Major Exports include agricultural produce and beverages from California, meat, electronics, automobile parts, pulp and waste paper, specialized industrial machinery, and synthetic resins and plastic chemicals, and are shipped to Asia through the Port of Oakland.

The existing Federal navigation channel serving Oakland Harbor is now adequate for efficient shipping operations and vessel safety as a result of increased vessel traffic and deployment of the next generation of containerships. Annual tonnage handled by the Port is 30 million tons per year. Average annual benefits, all commercial navigation, are estimated at \$165,000,000. Savings per ton of cargo (Average Annual Benefits/Average Annual tonnage) is \$5.5/ton.

The Port terminals are considered to be state-of-the-art. The plan of improvement will provide for further development of the harbors to accommodate the new generation of containerships, improve safety of vessel traffic and provide maximum efficiency of Port operations. The majority of ships presently using the Port have design drafts greater than 35 feet. Sixth generation vessels are now coming on line with drafts of 46 feet or greater (up to 48 feet at the present time). The deep draft fifth and sixth generation container ships experience tidal delays, with the result being that many of the shipping lines either bring those ships into Oakland only partially loaded or choose to bypass Oakland altogether. Limited deepening of the Inner Harbor portion of the project to -38 feet was completed in December 1992 and deepening of the Inner and Outer Harbors to -42 feet was completed in July 1998. Vessels may now depart the Port with some additional cargo, but must still arrive light-loaded. The remainder of the project is needed to allow safe and efficient utilization of the Port. Depths of 50 feet are required for users to efficiently call at the Port of Oakland presently and in the future. Recent economic events have resulted in a downturn in worldwide shipping which has caused a reevaluation of shipping routes and new port developments for the near future. Current information indicates that the current 5200 and 6000 TEU ships will be operating as the standard vessel for at 6 to 7 more years.

There are currently 2 major upland dredged material sites that are available to handle the remainder of the Oakland -50' deepening project dredged material, Hamilton Wetland Restoration site and the Montezuma Wetland Restoration site. In the event that the upland sites are unavailable, then the ocean disposal site, SF-DODS, is available.

FISCAL YEAR 2011: FY 2011 Funds in the amount of \$4,330,000 will be applied as follows: 1/

Initiate and complete Phase 2F contract to complete final grading of MHEA	\$1,475,000
Initiate and complete Phase 2G contract to complete MHEA Eelgrass Planting	1,330,000
Initiate adaptive management contract for maintenance and monitoring of the MHEA Habitat	1,000,000
Planning, Engineering and Design	350,000
Construction Management	175,000
Total	\$ 4,330,000

Division: South Pacific

District: San Francisco

Oakland Harbor, California (50-ft)

FISCAL YEAR 2012: The requested amount of \$350,000 will be applied as follows:

Award adaptive management contract for management and monitoring of MHEA \$ 350,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments R During Rehabilitation, Construction and and Repl Reimbursements Co	Annual Operation, Maintenance, repair, acement sts
Provide lands, easements, rights of way, and dredged material disposal areas.	\$16,198,000	N/A
Modify or relocate utilities, roads, bridges (except railroad bridges) and other facilities, where necessary for the construction of the project.	10,000,000	N/A
In-Kind Credit for 50% of Section 203 expenditures for Feasibility Study and Project Coordination Team to be reimbursed during construction as detailed in Water Resources Development Act of 1986.	8,862,000	
Pay 25 percent of the costs allocated to general navigation features for deepening to 45 feet, and 50 percent of the costs allocated to general navigation features for deepening greater than 45 feet during construction, and pay 50 percent of the costs of incremental maintenance below 45 feet below mean low water.	52,935,000	\$694,000
Pay 25 percent of the costs for beneficial use of dredged material in accordance with Section 204 of the Water Resources Development Act of 1992.	37,003,000	N/A
Division: South Pacific	District: San Francisco	Oakland Harbor, California (50-ft)

Pay 100% of the costs for local service facilities and berthing facilities.	60,597,000	N/A
Total Non-Federal Costs	\$185,595,000	\$694,000

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: The non-Federal sponsor, the Port of Oakland, contributed full funding for the feasibility study of the 50 foot deepening of the Inner and Outer Harbor, under the authority of Section 203 of the Water Resources Development Act of 1986. The design agreement was executed on 24 March 1999. The Project Cooperation Agreement was executed on 24 May 2001. The current non-Federal cost estimate of \$185,595,000 which includes a cash contribution of \$89,938,000 is approximately \$30,639,000 more than the amount of \$154,956,000 reflected in Amendment 1 of the Project Cooperation Agreement. The non-Federal sponsor has indicated it is financially capable and willing to contribute to the non-Federal share. Our analysis of the non-Federal sponsor's financial capability to participate in the project affirms that the sponsor has a reasonable and implementable plan for meeting its financial commitment.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$247,730,000 is an increase of \$3,118,000 from the last estimate presented to Congress (FY 2010).

Item	Amount
Contract award and other estimated adjustments (including contingency and cost share adjustments)	\$ 2,518,000
Contract modification for debris removal in Inner Harbor Turning Basin and administrative expenses	\$ 600,000
Total	\$ 3,118,000

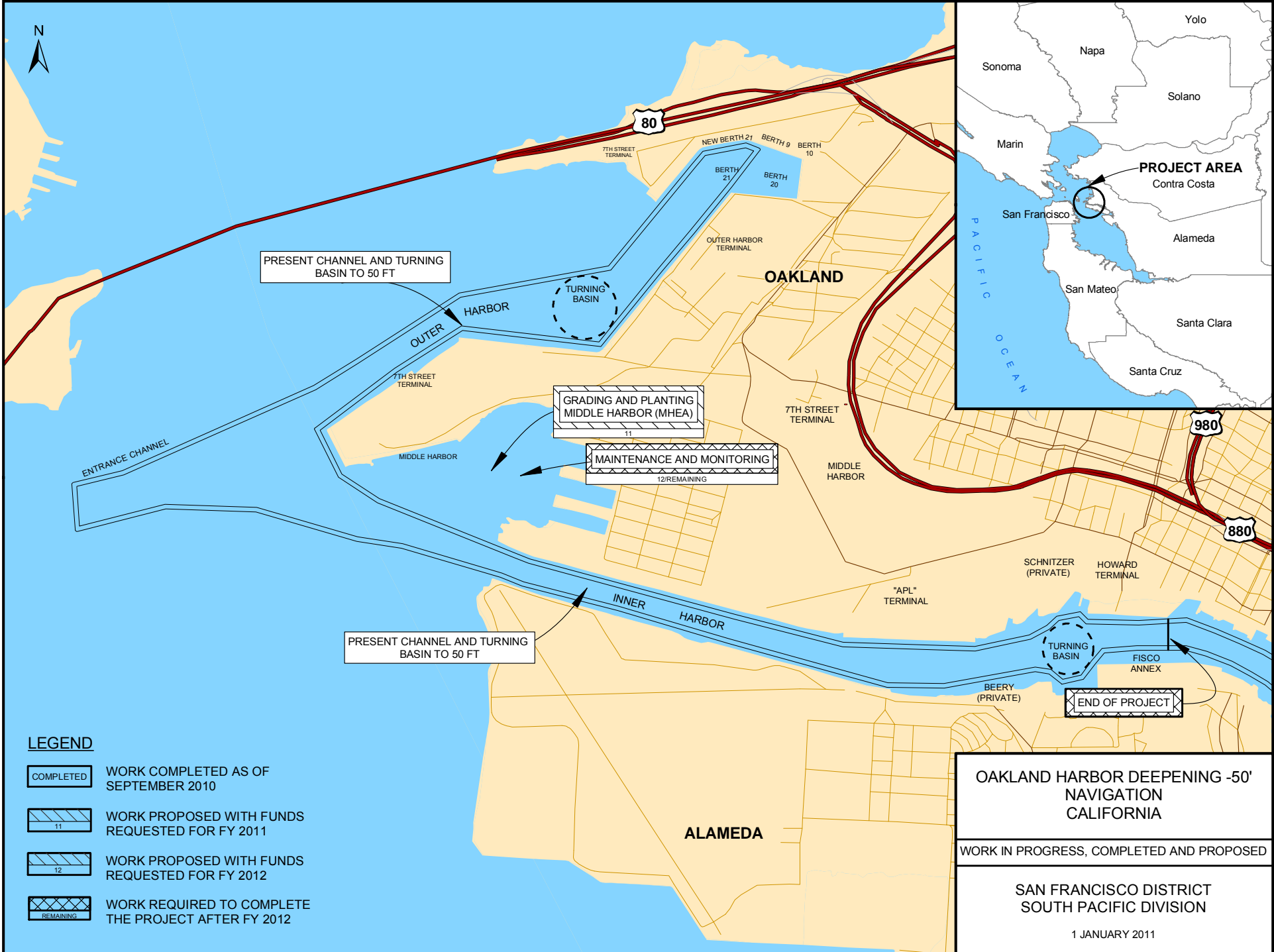
STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Final Environmental Impact Statement was filed with EPA in May 1998.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in Fiscal Year 1999. Funds to initiate construction were appropriated in Fiscal Year 2001. The initial construction contract was awarded on 27 September 2001. The Oakland Harbor PCA amendment package for acceptance of additional local funds was executed February 2005. The local sponsor has contributed additional funds to the project in FY 2006 to maintain the schedule. The remaining funds for FY 2011 and beyond are the mitigation costs for final grading and eelgrass planting (\$4,330,000) as well as adaptive management and monitoring until FY 2016 (\$4,432,000). We are still under the Section 902 limit of \$433,664,000 (October 2008).

Division: South Pacific

District: San Francisco

Oakland Harbor, California (50-ft)



14 February 2011

SPD-87

APPROPRIATION TITLE: Construction - Channels and Harbors (Navigation)

PROJECT: Sacramento River Deep Water Ship Channel, California (Continuing)

LOCATION: The Sacramento River Deep Water Ship Channel (SRDWSC) is a 46.5 mile long channel that lies within Contra Costa, Solano, Sacramento, and Yolo Counties and serves the marine terminal facilities at the Port of West Sacramento. The Sacramento River Deep Water Ship Channel joins the 35-foot deep San Francisco Bay to Stockton (John F. Baldwin) Ship Channel at New York Slough, thereby affording access to the Bay area harbors and the Pacific Ocean.

DESCRIPTION: The project involves the continuation of construction of the 35-foot deep channel previously authorized in 1986. Construction of the project was initiated in 1989, but work was suspended in 1990 at the request of the non-Federal sponsor, the Port of West Sacramento, due to financial constraints. In 1998 Congress directed USACE to complete a reevaluation of the incomplete project that would serve as a basis for resumption of construction. This effort was transferred to the San Francisco district in 2002. A Post-Authorization Change Report (PACR) and Supplemental Environmental Impact Statement/Subsequent Environmental Impact Report are being prepared to determine if the remaining project for channel deepening is economically and environmentally justified.

AUTHORIZATION: River and Harbor Act of 1946; Section 202(a) of the 1986 Water Resources Development Act; Section 305 of the 2000 Water Resources Development Act; Section 3030 of the 2007 Water Resources Development Act.

REMAINING BENEFIT - REMAINING COST RATIO: 3.4 @ 7 percent

TOTAL BENEFIT - COST RATIO: 2.93 @ 7 percent

INITIAL BENEFIT-COST RATIO: 2.5 to 1 @ 8 1/8 percent

BASIS OF BENEFIT - COST RATIO: The initial benefits are from the latest approved evaluation in the General Design Memorandum (GDM), March 1986, approved in May 1987 at October 1985 price levels. The total benefit to cost ratio, is based on benefits derived from the current preliminary economic analysis at 2010 price levels. A PACR is currently underway to verify the economic and environmental feasibility of continuing the authorized and partially constructed deepening project.

Division: South Pacific

District: Sacramento

Sacramento River Deep Water Ship Channel, California (Continuing)

COMPLETION SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST	STATUS (1 JAN 2011)	PCT Cmpl	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost (COE)		\$78,463,000		Entire Project	16	TBD
Estimated Federal Cost (USCG)		300,000				
Estimated Total Appropriation Requirement		78,763,000				
Estimated Non-Federal Cost		\$ 73,117,000				
Cash Contribution	\$3,517,000					
Other Costs	69,600,000					
Total Estimated Project Cost		\$151,880,000	1/			
Allocations to 30 September 2008		\$11,968,000				
Allocation for FY 2009		957,000				
Allocation for FY 2010		2,000,000				
Presidents Budget FY 2011		12,500,000				
Allocation through FY 2011		27,425,000	35			
Budget for FY 2012		3,500,000	39			
Programmed Balance to Complete after FY 2012		47,538,000				
Unprogrammed Balance to Complete after FY 2012		0				

PHYSICAL DATA

Channels:

Continue to deepen the existing 30 feet Sacramento River Deep Water Ship Channel from N.Y. Slough to the Port of Sacramento, a distance of about 43 miles, to 35 feet.

Fish and Wildlife Areas:

Deposit suitable dredged material at Prospect Island to aid in development of wetland and upland habitat for fish and wildlife mitigation and enhancement purposes

1/ This is a preliminary cost estimate for budgetary purposes only pending completion of the draft PACR. (See COMPARISON OF FEDERAL COST ESTIMATES)

Division: South Pacific

District: Sacramento

Sacramento River Deep Water Ship Channel, California (Continuing)

JUSTIFICATION: Since the existing channel was completed in 1963, tonnages increased through the mid-1990's but have substantially declined. According to the preliminary PACR from June 2010, there are no forest products exports and agricultural exports are less than half of what they were in 1986 when the GDM for the project was approved. Overall port commodity traffic has slowly declined by more than 50% since 1989. Compared to 1992, 1,360,000 tons of commodities moved through the Port of Sacramento and by 2009, 598,000 tons of commodities moved through the port. Projected expansion in trade for new bulk commodities (bio fuels, wood pellets, slag, and recycled metal) are expected to move through the port of Sacramento suggesting the potential justification for expanding the port to accommodate larger vessels. In addition, this project is critical to the California Bay-Delta restoration. Pending approval of the PACR, it is estimated that up to 15 million cubic yards of the dredged material would be used to strengthen the Bay-Delta area levees. Without this source of material the ecosystem restoration would be more costly. Once deepened, the Port would be able to accommodate 70% of the world's fleet at full design draft – currently it can accommodate only 20% of the world's fleet at design draft Average annual benefits at 1 October 2009 price level are estimated to range from \$14,600,000 to \$67,500,000 all navigation, according to the preliminary PACR from June 2010.

FISCAL YEAR 2011: Carryover funds are being applied to finalize the PACR. Pending the approval of the PACR, the FY 2011 President's budget amount may be applied as follows:

Planning, Engineering and Design	900,000
Complete Plans and Specifications for 1 st construction contract	1,200,000
Award 1 st construction contract	\$10,400,000
Total	\$12,500,000

FISCAL YEAR 2012: The requested amount of \$3,500,000 will be applied as follows:

Planning, Engineering and Design	\$ 700,000
Prepare Plans and Specifications for the 2 nd construction	650,000
Award Disposal Site Prep work contract in advance of 2 nd construction contract	2,150,000
Total	\$3,500,000

Division: South Pacific

District: Sacramento

Sacramento River Deep Water Ship Channel, California (Continuing)

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below:

	Payments During Construction And Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Requirements of Local Cooperation		
Provide lands, easements, rights of way, and dredged material disposal areas.	\$ 20,600,000	N/A
Modify or relocate utilities, roads, bridges (except railroad bridges) and other facilities, where necessary for the construction of the project.	16,700,000	N/A
Construction costs non-LERRDs	\$36,000,000	N/A
Pay 25 percent of the costs allocated to general navigation facilities during Construction and pay 50 percent of the cost of incremental maintenance below 45 feet feet below mean low water.	\$ 73,300,000	N/A
Total Non-Federal Costs		

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: The authorized project, to deepen the existing channel from a depth of 30- to 35-feet, was initiated in 1989 but work was suspended in 1990 at the request of the sponsor, the Port of Sacramento, due to utility relocation issues and their inability to continue financing their share of project costs. In 1998 Congress directed the Corps to perform a re-evaluation of the project that would serve as the basis for possible recommendation to resume construction. This re-evaluation was initiated in 2002; however, in 2005 the Port requested that the study be suspended until they could solidify their financial situation. Recently, the Port of Oakland has agreed to expand their operational model and help operate the Port of Sacramento. The authorized cost share is 75% Federal and 25% non-Federal. The Water Resources Development Act of 2007 directed the Corps to credit the local sponsor for planning and design work carried out by the local sponsor prior to the date of the partnership agreement. To date there is no agreement or mention in the preliminary PACR for this credit and will be considered pending final results of the PACR. However, due to high LERRD costs the sponsor's obligations will exceed 25%. Both Ports fully support the deepening study, considered critical to the continued existence of the Port and vital to ensuring the safe navigation within the channel.

Division: South Pacific

District: Sacramento

Sacramento River Deep Water Ship Channel, California (Continuing)

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal estimate, reported in the preliminary PACR, Jan 2011, is \$78,763,000 and is different from the \$27,980,000 last reported to Congress in FY 2010. This is an increase of \$50,783,000. The re-evaluation study is finally at the stage of having enough current data to derive updated preliminary costs in the preliminary PACR and a cost estimate was recalculated in June 2010.

Furthermore, the authorized project cost of \$125,000,000, of which \$76,000,000 is the federal share, is based on the 1981 Chief's Report and not the 1986 GDM. The FY 1986 budget reported a federal cost estimated based on the results of the GDM, as \$62,000,000. From FY 1986 through FY 2003 budget years the project costs reported were adjusted to reflect the reduced project scope. The reduced project features have included narrower channels, no submerged salinity sill since physical model showed no adverse salinity effects; the deletion of recreation facilities; reduced dredging quantities than the originally authorized project based on more extensive geotechnical studies and decreases in fish and wildlife facilities.

Therefore, the project features currently considered in the preliminary PACR have substantially changed since the project was authorized by WRDA 1986 and do not allow for a direct comparison of escalation amounts. Preliminary comparison of the authorized cost in 1986 of \$125,000,000 is equivalent to \$250,000,000 at 2010 price levels. The current 902 limit, (Jan 2011) is \$272,000,000 and the current preliminary total project cost of \$151,000,000 is under the authorized project limit. This increase in some of the costs can be attributable to: inflation increases to labor, material and LERRD's; higher private sector cost of doing business; stricter and costlier environmental regulations and mitigation requirements; increases to dredged material disposal sites; newly placed utilities that require relocation.

The cost escalation features described below are preliminary, not policy compliant at this time, and subject to change based on further review of engineering designs and final approved PACR

Item	Amount
Price increase required to be policy compliant	\$84,140,000
Design Changes	400,000
Additional Functions Added under General Authority	0
Authorized Modifications	0
Post Contract Award and Other Estimating Adjustments (including contingency adjustments)	0
Schedule Changes	0
Price Escalation or De-Escalation on Real Estate	10,000,000
Total	\$94,540,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Environmental Impact Statement was filed on 8 May 1981; the Supplemental Environmental Impact Statement was filed on 2 January 1987. An Environmental Assessment addressing the environmental impacts of changes in design due to deleting portions of planned widening was completed 1 May 1988, and a Finding of No Significant Impact was signed 1 August

Division: South Pacific

District: Sacramento

Sacramento River Deep Water Ship Channel, California (Continuing)

1988. A draft Supplemental Environmental Impact Report/Subsequent Environmental Impact Statement (SEIS) is being prepared and the public release date has slipped to September 2011, therefore the final SEIS will not be finalized by April 2011 as reported in the FY11 budget justification.

OTHER INFORMATION:

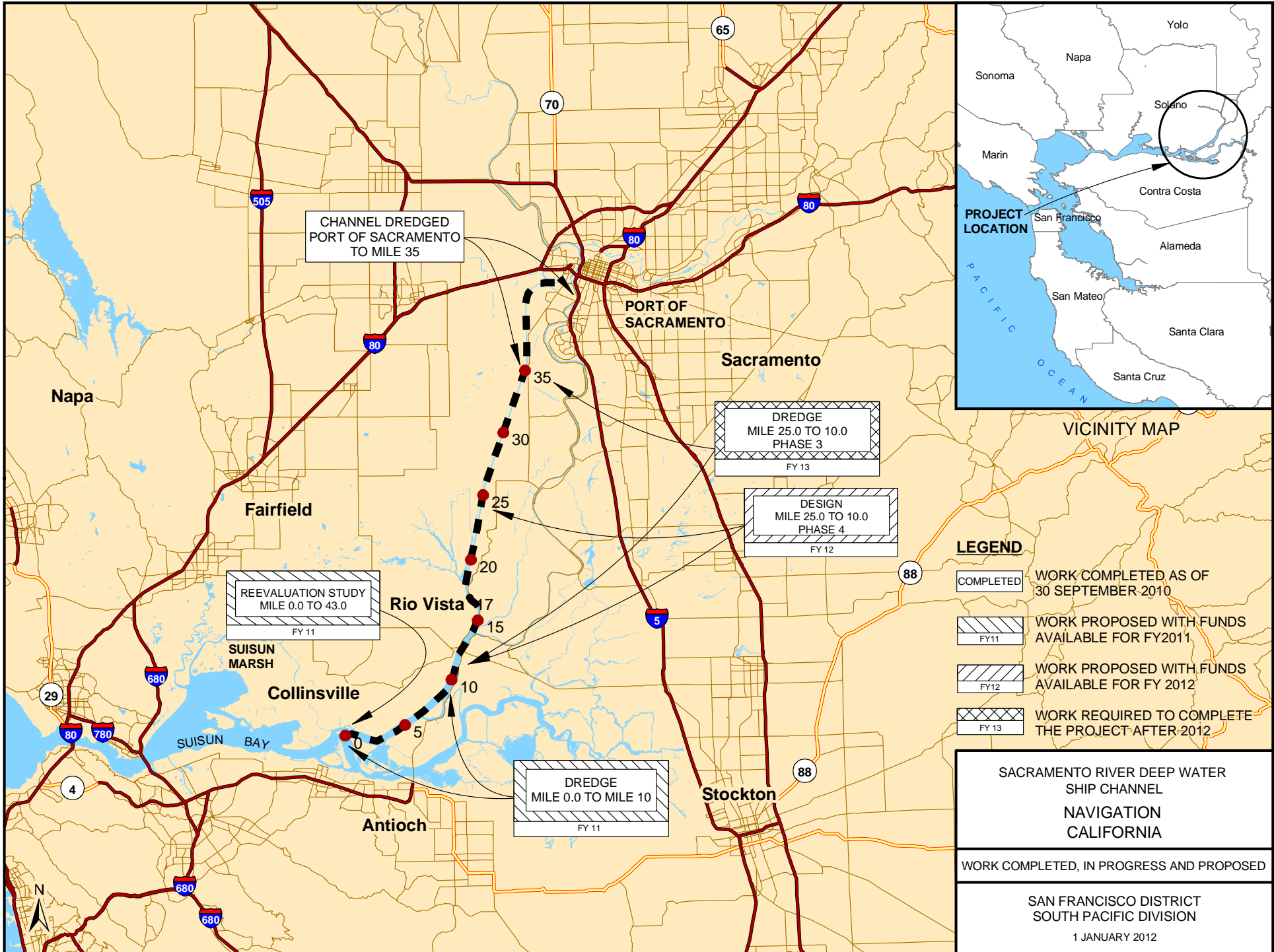
Funds to initiate preconstruction planning were appropriated in FY 1982 and to initiate construction in the FY 1985 Supplemental Appropriations Act. The first construction contract for deepening was awarded in February 1989.

The local sponsor requested a delay in construction during fiscal years 1990 and 1994 in order to resolve utility relocations issues and pursue the establishment of an assessment district and/or the sale of lands as a means of meeting their remaining financial responsibility for project completion.

The Water Resources Development Act of 1990 includes language directing the Corps to enforce Section 10 authority for relocation of utility lines on a reimbursable basis. However, the Port requested the Corps not pursue enforcement as they have been able to resolve any differences with the utility companies.

The Water Resources Development Act of 2007 directed the Corps to credit the local sponsor for planning and design work carried out by the local sponsor prior to the date of the partnership agreement. The FY11 budget justification suggested the partnership agreement would be executed in July 2011. This action is pending the final results of the PACR.

Additional, pending scheduled activities in support of the FY11 and FY12 budgets are: initiate 1st construction contract in September 2011; complete planning, engineering and design (PED) by 15 April 2012; prepare final plans and specifications for the 2nd construction contract on 30 June 2012; and award disposal site prep work contract in advance of the 2nd construction contract 1 August 2012



14 February 2011

SPD-94

Environment

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Investigations

)

APPROPRIATION TITLE: Investigations, Fiscal Year 2012

Division: South Pacific

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2009 \$	Allocation FY 2009 \$	Allocation FY 2010 \$	President's Budget FY 2011 \$	Tentative Allocation FY 2012 \$	Additional to Complete After FY 2012 \$
SURVEYS – CONTINUING (Environment)							
Malibu Creek Watershed, CA Los Angeles District	2,253,000	1,647,000	96,000	90,000	210,000	210,000	0

The study is located about 30 miles west of the City of Los Angeles. Approximately 2/3 of 109 square mile watershed is located in northwest Los Angeles County and 1/3 is in Ventura County. Malibu Creek watershed is within the Santa Monica Mountains; a mix of urban development and open space. Malibu Creek drains into Malibu Lagoon and Santa Monica Bay. Rindge Dam, built in the 1920's, creates a barrier to the endangered steelhead trout's spawning ground, upstream of Malibu Creek. The sediment behind the dam could also be used to nourish downstream beaches in the city of Malibu and elsewhere in Los Angeles County. The study will develop a plan to manage the sediment to facilitate ongoing efforts to improve ecosystem in Malibu Creek and lagoon. Malibu Creek has a unique opportunity for systemic and sustainable environmental restoration. Malibu Creek has an important linkage to the Santa Monica Bay National Estuary; Malibu Lagoon which is one of two wetlands that still remain. Malibu Creek Watershed is home to the endangered Southern California steelhead and goby. It also is habitat for the threatened Arroyo chub and the California frog. Los Angeles Department of Water and Power, the local sponsor, signed the Feasibility Cost Sharing Agreement in July 2001.

Fiscal Year 2011 funds are being used to continue the feasibility study. Funds requested for Fiscal Year 2012 will be used to complete the feasibility phase. The estimated cost of the feasibility phase is \$4,306,000, which is to be shared on a 50-50 percent basis by the Federal and non-Federal interests. Up to 100 percent of the non-Federal costs may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	\$4,406,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	2,153,000
Feasibility Phase (Non-Federal)	2,153,000

The reconnaissance phase completed July 2001. The feasibility study completion is scheduled for September 2012.

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APPROPRIATION TITLE: Investigations, Fiscal Year 2012

Division: South Pacific

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2009 \$	Allocation FY 2009 \$	Allocation FY 2010 \$	President's Budget FY 2011 \$	Tentative Allocation FY 2012 \$	Additional to Complete After FY 2012 \$
SURVEYS – CONTINUING (Environment)							
Rio Grande Basin, CO, NM and TX Albuquerque District	4,800,000	2,012,000	478,000	103,000	500,000	300,000	1,407,000

The study will address the water resources needs of the Rio Grande Basin, pursuant to Section 729 of the Water Resources Development Act of 1986 as amended, Section 202 of the Water Resources Development Act of 2000 and Section 2010 of the Water Resources Development Act of 2007. The Rio Grande Basin is located in the states of Colorado, New Mexico and Texas, and encompasses an area over 160,000 square miles, from the headwaters of the Rio Grande in central Colorado to its mouth at the Gulf of Mexico near Brownsville, Texas. Water conveyance and delivery, ecosystem degradation, and flooding are major issues in the basin. River flow regulation by nine major dams on the main stem and tributaries for flood control and water delivery has changed the historical flow regime in the Rio Grande. Water is diverted for irrigation, industrial and residential uses. Changes in hydrology, channel configuration, land use activities, and the spread of exotic vegetation have adversely impacted the native riverine ecosystem to the extent that the Rio Grande Silvery Minnow and the Southwestern Willow Flycatcher are now listed as endangered under the Endangered Species Act. This listing is impacting existing flood control and water delivery operations. Another critical issue is the ongoing loss of water supply storage at Elephant Butte Reservoir and Lake Amistad. Unless these losses are addressed, the Rio Grande Basin may lose at least one full year of its drought contingency potential by the year 2050. Many border cities in Texas and Mexico depend on the Rio Grande for water supply. Under international agreements, 60 percent of the Rio Grande water rights below Fort Quitman, Texas belong to Mexico. As a shared resource, it would benefit all users to address regional concerns. Some of the border cities also have rudimentary or non-existent water and wastewater treatment systems, further contributing to the degradation of the environment. The study will provide interagency collaboration for ecosystem restoration, watershed analysis and adaptive management resource managers with information to maintain healthy watershed in Colorado, New Mexico and Texas; develop and evaluate potential salinity control management strategies based on stakeholder needs and priorities; identify the most promising methods and locations for salinity control projects; and evaluate potential salinity control management strategies based on stakeholder needs and priorities.

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APPROPRIATION TITLE: Investigations, Fiscal Year 2012

Division: South Pacific

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2009 \$	Allocation FY 2009 \$	Allocation FY 2010 \$	President's Budget FY 2011 \$	Tentative Allocation FY 2012 \$	Additional to Complete After FY 2012 \$
SURVEYS – CONTINUING (Environment)							
Rio Grande Basin, CO, NM and TX Albuquerque District	4,800,000	2,012,000	478,000	103,000	500,000	300,000	1,407,000

Fiscal Year 2011 funds are being used to complete Part 2 of the Rio Grande Salinity Study (Phase III) and complete reconnaissance studies for two State Parks in the lower Rio Grande Broad Canyon and Mesilla Valley State Parks. Funds requested for Fiscal Year 2012 will be used to continue three phases of the watershed study and initiate a fourth phase on the Pecos River. The estimated cost of the study is \$6,000,000, which will be shared on a 75-25 percent basis by Federal and non-Federal interests, in accordance with Section 202 of the Water Resources Development Act of 2000. Section 2010 of the Water Resources Development Act of 2007 (modified non-Federal cost-sharing from 50% to 25%) and Section 108 of the 2008 Energy and Water Development Appropriations Act (allows the entire non-Federal share to be work-in-kind). A summary of study cost sharing is as follows:

Total Estimated Study Cost	\$6,300,000
Reconnaissance Phase (Federal)	300,000
Feasibility Phase (Federal)	4,500,000
Feasibility Phase (Non-Federal)	1,500,000

The watershed study completion date is being determined.

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APPROPRIATION TITLE: Investigations, Fiscal Year 2012

Division: South Pacific

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2009 \$	Allocation FY 2009 \$	Allocation FY 2010 \$	President's Budget FY 2011 \$	Tentative Allocation FY 2012 \$	Additional to Complete After FY 2012 \$
SURVEYS – CONTINUING (Environment)							
San Pablo Bay Watershed and Suisun Marsh Ecosystem Restoration, CA San Francisco District	2,798,000	1,923,000	119,000	0	0	500,000	256,000

The San Pablo Bay Watershed is the northern arm of San Francisco Bay drainage basin, within the boundaries of Marin, Sonoma, Napa, Solano and Contra Costa Counties, California. The California Coastal Conservancy supports a non-regulatory approach to wetland protection and restoration in conjunction with existing agricultural activities. Within the watershed, there are opportunities to increase the state's wetland acreage by over five percent. Wetlands in the watershed are critically important to migratory waterbirds on the Pacific Flyway and several other endangered species. Suisun Marsh is located in southern Solano County, California about 35 miles northeast of San Francisco. The watershed study identifies and implements Federal participation for restoration projects and resource protection opportunities of these areas in addition may look at levee stability in the Suisun Marsh. As the largest contiguous brackish water marsh remaining on the west coast of North America, the Marsh is a critical part of the San Francisco Bay/Sacramento-San Joaquin Delta (Bay-Delta) estuary ecosystem. The study was identified by Section 503 of the 1996 Water Resources Development Act (WRDA) and authorized by Northern California Streams, Section 209 of the 1962 Flood Control Act. Section 5053 (a) of the WRDA 2007 states: "The Secretary shall complete work, as expeditiously as possible, on the ongoing San Pablo Bay watershed, California, study to determine the feasibility of opportunities for restoring, preserving, and protecting the San Pablo Bay watershed." The San Pablo Bay Restoration Program Framework Plan (November 2000) identifies restoration projects and technical assistance to support resource protection and restoration. Several projects are in the design stage. This study identifies and implements Federal participation for restoration project and resource protection opportunities of the area. The California Coastal Conservancy, the non-Federal sponsor, signed the Feasibility Cost Sharing Agreement in June 1999. The Draft San Pablo Bay Watershed Management Plan describes activities that would restore critical habitat throughout the watershed and was completed in Fiscal Year 2010. The Final Watershed Management Plan would identify high priority project proposals and management measures and rank the watershed's critical habitats and set priorities for restoration. In accordance with Section 5053(c), prioritizing projects for implementation, USACE will be able to consult with and consider the priorities of public

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APPROPRIATION TITLE: Investigations, Fiscal Year 2012

Division: South Pacific

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2009 \$	Allocation FY 2009 \$	Allocation FY 2010 \$	President's Budget FY 2011 \$	Tentative Allocation FY 2012 \$	Additional to Complete After FY 2012 \$
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and private entities that are active in the San Pablo Bay and Suisun Marsh areas. \$40 million is authorized to implement restoration projects in accordance with the general procedures for Section 206 Continuing Authorities Program.

SURVEYS – CONTINUING (Environment)

San Pablo Bay Watershed and Suisun Marsh Ecosystem Restoration, CA San Francisco District	2,798,000	1,923,000	119,000	0	0	500,000	256,000
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Funds requested for Fiscal Year 2012 will be used to continue the feasibility phase of the study. The estimated cost of the feasibility phase is \$5,400,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Up to 100 percent of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	\$5,498,000
Reconnaissance Phase (Federal)	98,000
Feasibility Phase (Federal)	2,700,000
Feasibility Phase (Non-Federal)	2,700,000

The reconnaissance phase was completed in June 1999. The feasibility study completion date is being determined.

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Construction

APPROPRIATION TITLE: Construction – Environmental Restoration

PROJECT: Hamilton Airfield Wetlands Restoration, California (Continuing)

LOCATION: Hamilton Airfield Wetland Restoration Project is located 4 miles east of the city of Novato, on San Pablo Bay, Marin County, California.

DESCRIPTION: The project was originally authorized for construction in Water Resources Development Act of 1999 § 101(b)(3), Pub. L. No. 106-53, 113 Stat 269 (WRDA 99) and includes a 988-acre parcel consisting of a former military runway and the adjacent California State Lands Commission area. The site, currently protected by levees, has subsided below the elevation of surrounding properties including the tidal wetlands immediately adjacent to San Pablo Bay. This condition has resulted in the loss of valuable habitat for various waterfowl, fish and other wetland dependent species of plants and animals including at least two threatened and endangered species. Water Resources Development Act of 2007 § 3018, Pub. L. No. 110-114, 121 Stat. 1041 (WRDA 07) added the adjacent 1,612-acres parcel of Bel Marin Keys Unit V, increasing the authorized project from 988 acres to approximately 2,600. The combined project provides for the restoration of both sites through the beneficial reuse of approximately 24.4 million cubic yards of dredged material. This includes 5 million cubic yards from the Oakland Harbor, CA (50-ft) deepening project being used as part of the effort to restore the Hamilton Airfield portion of the project. The project is an integral part of the long term management strategy (LTMS) for placement of dredged material in the San Francisco Bay region.

AUTHORIZATION: 1999 Water Resources Development Act, § 101(b)(3), Pub. L. No. 106-53, 113 Stat 269, *modified by* the 2007 Water Resources Development Act, § 3018, Pub. L. No. 110-114, 121 Stat. 1041.

REMAINING BENEFIT - REMAINING COST RATIO: Not applicable.

TOTAL BENEFIT - COST RATIO: As required, both a cost effectiveness and an incremental cost analysis were performed in order to evaluate the efficiency of the restoration alternatives, and to help in the identification of the National Ecosystem Restoration (NER) Plan.

The Hamilton Airfield Wetland Restoration Feasibility study identified the "best buy" action alternatives, and chose Alternative 5 as the NER plan for the Hamilton project on the basis of environmental significance, acceptability, completeness, and effectiveness. The Bel Marin Keys General Re-evaluation Report identified the "best buy" plans associated with the Bel Marin Keys Unit V Parcel and chose Revised Alternative 2 as the NER Plan for the Bel Marin Keys portion of the total project.

INITIAL BENEFIT – COST RATIO: Not applicable

BASIS OF BENEFIT - COST RATIO: Project justification is based on nonmonetary benefits for seasonal and tidal wetland ecosystem restoration.

Division: South Pacific

District: San Francisco

Hamilton Airfield Wetlands Restoration, California

14 February 2011

SPD-103

SUMMARIZED FINANCIAL DATA		STATUS (1 Jan 2011)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	\$ 180,530,000	Entire Project	35	2028
Estimated Non-Federal Cost	\$ 86,170,000			
Cash Contribution	\$ 52,737,000			
Other Costs	33,433,000			
Total Estimated Project Cost	\$ 266,700,000			

PHYSICAL DATA

Placement of 24.4 million cubic yards of dredged material; Breach tidal levee; Construction of 65,000 linear ft of levees and wetland restoration of 2,600 acres

		ACCUM PCT OF EST FED COST
Allocation to 30 September 2008	\$ 44,386,000	
Allocation for FY 2009	13,700,000	
Allocation for FY 2010	14,065,000 1/	
Recovery Act Allocations to Date	0	
President's Budget for FY 2011	20,000,000	
Allocation through FY 2011	92,151,000	51
Budget for FY 2012	8,250,000	56
Programmed Balance to Complete after FY 2012	80,129,000	
Unprogrammed Balance to Complete after FY 2012	0	

1/ \$185,000 reprogrammed to Napa River Salt Marsh to support Value Engineering (VE) study, Agency Technical Review (ATR) and Bidability, Constructability, Operability and Environmental (BCOE) requirement. Reprogramming actions were approved by the Non-Federal Sponsor and congressional proponent.

JUSTIFICATION: The Hamilton Airfield Wetland Restoration project area, currently protected by levees, has subsided below the elevation of surrounding properties, including the tidal wetlands immediately adjacent to San Pablo Bay. This condition has resulted in the loss of valuable habitat for various waterfowl, fish and other wetland dependent species of plants and animals including at least two threatened and endangered species. The principal purpose of the project is restoration of wetland habitat via beneficial reuse of dredged material from San Francisco Bay dredging projects and in line with the San Francisco Long Term Management Strategy (LTMS) goal.

Division: South Pacific

District: San Francisco

Hamilton Airfield Wetlands Restoration, California

FISCAL YEAR 2011: The current amount of \$ 20,000,000 will be used on the original Hamilton Airfield Wetlands of the project (\$11,750,000 below) and pending the execution of the PCA amendment to include Bel Marin Keys V \$X will be used to complete design of and award the Bel Marin Keys Unit V levee features (\$8,250,000).

Hamilton Breach Plan Development and Design Review	\$ 375,000
Continue placement of O&M dredged sediment at Hamilton	7,500,000
Planning, Engineering and Design of BMKV Parcel	2,925,000
Hamilton Planting Contract	200,000
Construction Management	750,000
Total	\$11,750,000

FISCAL YEAR 2012: The requested amount of \$8,250,000 will be applied as follows:

Hamilton Parcel Breach Construction and Dredge Pilot Channel	4,250,000
Levee repairs to complete Hamilton Parcel	4,000,000
Total	\$8,250,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the 1986 Water Resources Development Act (WRDA), the non-Federal sponsor must comply with the requirements listed below:

	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repairs, Rehabilitation, and Replacement Costs
Requirements of Local Cooperation		
Provide lands, easements, rights of way, and dredged material disposal areas.	\$ 21,799,000	N/A

Division: South Pacific

District: San Francisco

Hamilton Airfield Wetlands Restoration, California

Modify or relocate utilities, roads, bridges (except railroads bridges), and other facilities, where necessary for the construction of the project.	11,634,000	N/A
Pay 14 percent of the construction costs allocated to fish and wildlife restoration/beneficial reuse of dredged material in cash to bring the non-Federal share of the project to 25 percent in accordance with Section 101(b) of the 1999 Water Resources Development Act.	52,737,000	\$ 0
Total Non-Federal Costs	\$ 86,170,000	\$ 0

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: The California State Coastal Conservancy (SCC), the local sponsor, supports the project. The initial Hamilton Project Design Agreement was executed in September 1999. The subsequent Project Cooperation Agreement (PCA) for the Hamilton portion of the project was signed in April 2002 and was amended in January 2005 to allow acceptance of advanced funds from the local Sponsor. The WRDA 2007 authorization, which folded the Bel Marin Keys Unit V parcel into the Hamilton project increased the projected total fully funded cost to \$266,700,000. The current estimated non-Federal cost is about \$86,170,000. The Corps and the non-Federal Sponsor are working on the second amendment to the April 2002 PCA to update the project scope and cost to represent the authorized WRDA 2007 cost of \$266,700,000. A major concern of the local sponsor is the legal interpretation that the WRDA 2007 increased their project cost share from 25% Non-Federal to 35% Non-Federal. The Corps is currently working with the local sponsor to resolve their concerns and move forward with signing the PCA Amendment.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$180,530,000 is an increase of \$9,430,000 from the last estimate presented to Congress (FY 2010). This represents the fully funded cost of the estimate provided in the Chief's report and is consistent with the Federal cost in the 2007 WRDA.

Item	Amount
Price escalation on construction features	\$ 9,430,000
Total	\$ 9,430,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Final Environmental Impact Statement was filed with Environmental Protection Agency in February 1999. A General Reevaluation Report (GRR) and Supplemental Environmental Impact Report/Environmental Impact Statement for Bel Marin Keys Unit V Expansion of the Hamilton Wetland Restoration Project was completed in April 2003. The GRR and Supplemental EIS/EIR recommended the inclusion of the Bel Marin Keys Unit V parcel into Hamilton Wetland Restoration Project. The Bel Marin Keys Chief's Report was signed 19 July 2004.

Division: South Pacific







District: San Francisco

Hamilton Airfield Wetlands Restoration, California

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were reprogrammed to the project with Congressional approval in Fiscal Year 1999. Funds to initiate construction were appropriated in Fiscal Year 2001.

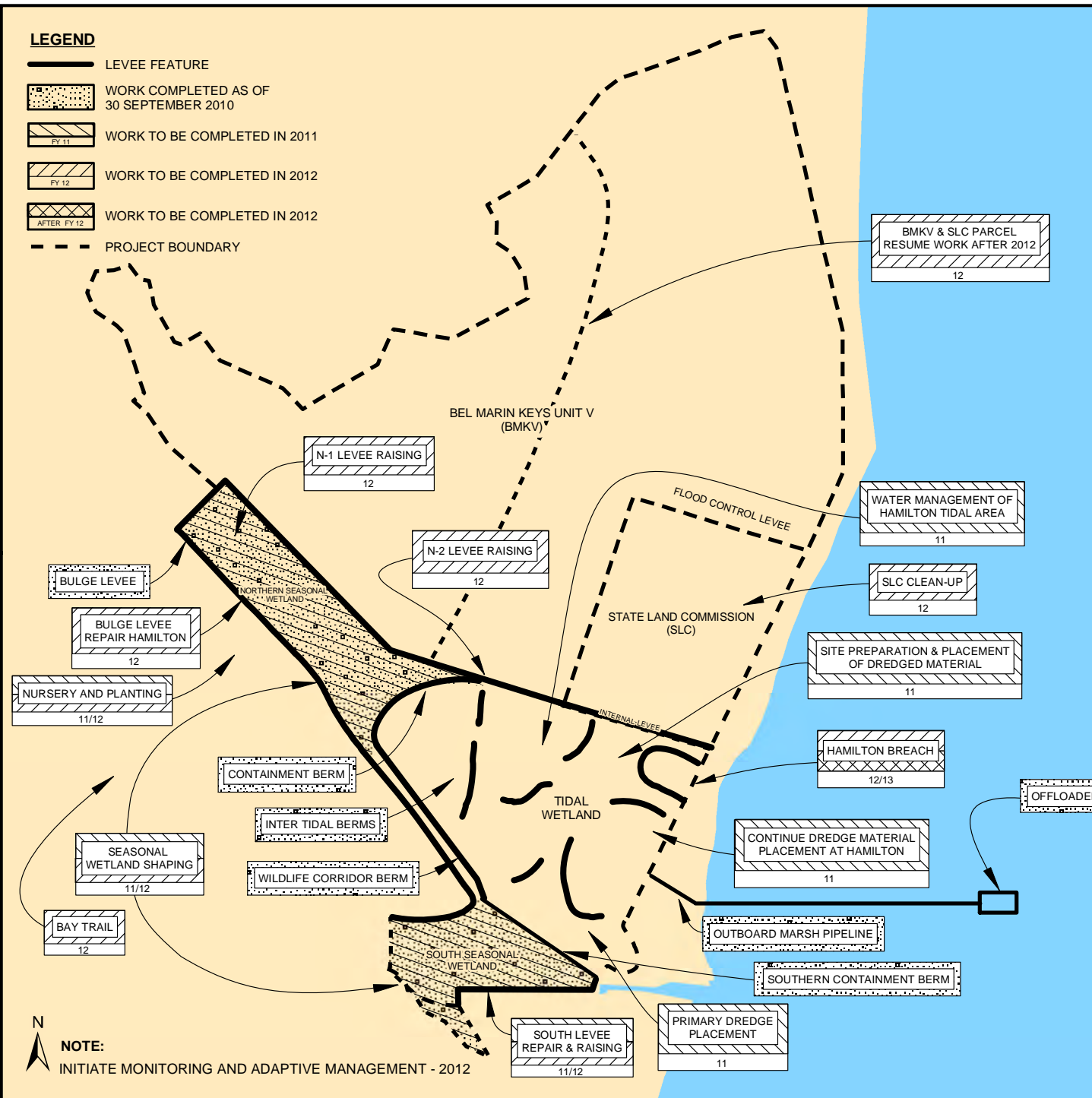
Army Base Realignment And Closure (BRAC) transfer of the Hamilton Airfield parcel to the State of California occurred in September 2003. However, BRAC still needs to provide a pump at the northwest corner of Cell 1 to provide water to the seasonal habitat of the Hamilton site. The Formerly Used Defense Sites (FUDS) program is using ARRA funding to remove about 30,000 cubic yards of soil off site from the State Land Commission parcel and relocate about 120,000 cubic yards to Bel Marin Keys Unit V to use as levee foundation in FY 2010.

LEGEND

-  LEVEE FEATURE
-  WORK COMPLETED AS OF 30 SEPTEMBER 2010
-  WORK TO BE COMPLETED IN 2011
-  WORK TO BE COMPLETED IN 2012
-  WORK TO BE COMPLETED IN 2012 AFTER FY 12
-  PROJECT BOUNDARY



VICINITY MAP



HAMILTON AIRFIELD AND BEL MARIN KEYS
WETLAND RESTORATION
CALIFORNIA

WORK COMPLETED, IN PROGRESS & PROPOSED

SAN FRANCISCO DISTRICT
SOUTH PACIFIC DIVISION
1 JANUARY 2011

14 February 2011

SPD-108

APPROPRIATION TITLE: Construction - Local Protection (Ecosystem Restoration)

PROJECT: Hamilton City, California (New)

LOCATION: The project is located in Glenn County, California.

DESCRIPTION: This multipurpose project area includes Hamilton City and the surrounding rural area. The boundaries are the Sacramento River to the east the Glenn Colusa Canal to the west and extends about two miles north and six miles south of Hamilton City. The project area lies just north of the existing Sacramento River Flood Control Project levees and within the area of extent of the Chico Landing to Red Bluff bank protection project. The feasibility study was accomplished as part of the Central Valley Integrated Flood Management Study (formerly Sacramento and San Joaquin River Basins Comprehensive Study) with Reclamation Board of California as the non-Federal sponsor. The project will construct a setback levee, degrade an existing levee and revegetate the setback area to restore 1,145 acres riparian woodland, 261 acres riparian shrub, and 70 acres floodplain meadow. This multipurpose project will also reduce flood risk for town of Hamilton City and adjacent agricultural lands.

AUTHORIZATION: Water Resource Development Act of 2007, Section 1001(8), P. L. 110-114

REMAINING BENEFIT-REMAINING COST RATIO: N/A

TOTAL BENEFIT-COST RATIO: Project purpose is primarily ecosystem restoration. Incremental cost analysis of combined alternative plans identified restoration benefits of 888 average annual habitat units (AAHUs) and average annual flood risk management benefits of \$577,000 for the recommended plan. The benefit to cost ratio for flood risk management is 1.5 to 1 at 7 percent. This plan reasonably maximizes total ecosystem restoration and flood risk management benefits compared to costs.

BASIS OF BENEFIT-COST RATIO: The primary outputs for this multipurpose project are environmental. Flood risk management benefits are from the Final Feasibility Report for Hamilton City Flood Damage Reduction and Ecosystem Restoration, California project dated July 2004 at October 2003 price levels, and approved in the Chief's Report dated 22 December 2004.

SUMMARIZED FINANCIAL DATA		STATUS (1 JAN 2011)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE	
Estimated Federal Cost		\$34,100,000	Entire Project	0	2016
Estimated Non-Federal Cost		18,300,000			
Cash Contribution	\$ 1,180,000				
Other Costs	17,120,000				
Total Estimated Project Cost		\$52,400,000			

Division: South Pacific

District: Sacramento

Hamilton City, California

SUMMARIZED FINANCIAL DATA (Continued)

		ACCUM PCT OF EST FED COST
Allocations to 30 September 2008	\$1,649,000	1/
Allocations for FY 2009	832,000	1/
Allocations for FY 2010	341,000	1/
Conference Allowance for FY 2011	TBD	
President's Budget for FY 2011	0	
Allocations through FY 2011	2,822,000	8
Budget for FY 2012	8,000,000	32
Programmed Balance to Complete after FY 2012	23,278,000	
Unprogrammed Balance to Complete after FY 2012	\$ 0	

1/ PED costs associated with Investigations funds

JUSTIFICATION: Ecosystem (\$47.2 million) - Over 95% of the Sacramento River's floodplains (riparian and wetland habitats) have been lost due to development and agriculture. This project will restore approximately 1,480 acres of floodplain habitat. All the land between the existing levee and setback levee alignment will be restored to the natural floodplain. This would include a variety of different habitat types to include riparian scrub, oak savannah, and grassland communities. Restoration of this flood plain area will benefit the recovery of eight different listed or proposed species in the area. This includes winter-run Chinook salmon, steelhead, Valley Elderberry Longhorn Beetle, and Swainson's Hawk. The restoration will provide vital habitat (nesting, foraging, and shelter) to these species and increase biodiversity to more natural levels. This restoration is in coordination with other Federal, State, Local, and non-profits agencies, which are developing a system wide restoration effort to establish a continuous riparian corridor along the Sacramento River. This project is a key element to this effort as it will connect four other restored areas providing a larger continual habitat corridor than just the project's restoration area. Benefits will be incremental starting immediately after planting with full benefits at approximately year ten. The value of connecting multiple restoration areas and establish a larger corridor has exponential benefits that are not in the project analysis. Including the land cost, this restoration is approximately \$31,000 per acre.

Flood Risk Management (\$5.2 million) - Record flood flow occurred in 1974 when a privately constructed "J" levee failed. Extensive flood fighting and evacuation took place in 1983, 1986, 1995, 1997, and 1998. The project consists of constructing a setback levee about 6.8 miles long that would have varying heights and varying levels of performance for flood risk management, removal of existing private levee, and restoration of 1,480 acres of native floodplain habitat. The benefit to cost ratio for the flood risk management portion of the project is 1.5 to 1 at 7 percent based upon October 2003 price levels in the Feasibility Report dated July 2004. The PED cost-sharing agreement was executed with the local sponsor, the State of California Reclamation Board, now the Central Valley Flood Protection Board, on December 13, 2005. Average annual benefits are estimated at \$577,000 at October 2003 price levels. There will be minimal benefits from the first year of construction and full benefits after year two. The driving factors for project costs are land values and cost of materials.

FISCAL YEAR 2011: The project is not in the FY 2011 President's budget.

Division: South Pacific

District: Sacramento

Hamilton City, California

FISCAL YEAR 2012: The requested amount will be applied as follows:

Acquisition and propagation of plants and installation; establishment for approximately half of restoration area	\$ 8,000,000
Total	\$8,000,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986 the non-Federal sponsor must comply with the requirements listed below (

	Payments During Construction And Reimbursements	Annual Operation Maintenance, Repair, Rehabilitation, and Replacement Costs
Requirements of Local Cooperation		
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas, which are partially offset by a credit allowed.	\$16,400,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary in the construction of the project.	720,000	
Pay 2 percent of the costs allocated to ecosystem restoration to bring the total non-Federal share of ecosystem restoration costs to 35 percent, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control and ecosystem restoration facilities.	1,180,000	
Total Non-Federal Costs	\$18,300,000	

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: Project Partnership Agreement (PPA) scheduled to be signed in December 2011. The project is authorized for construction by the Water Resources Development Act (WRDA) of 2007 at a total first cost of \$52,400,000. The cost sharing for construction of the project will be 65 percent Federal and 35 percent non-Federal in accordance with WRDA 1996.

Division: South Pacific

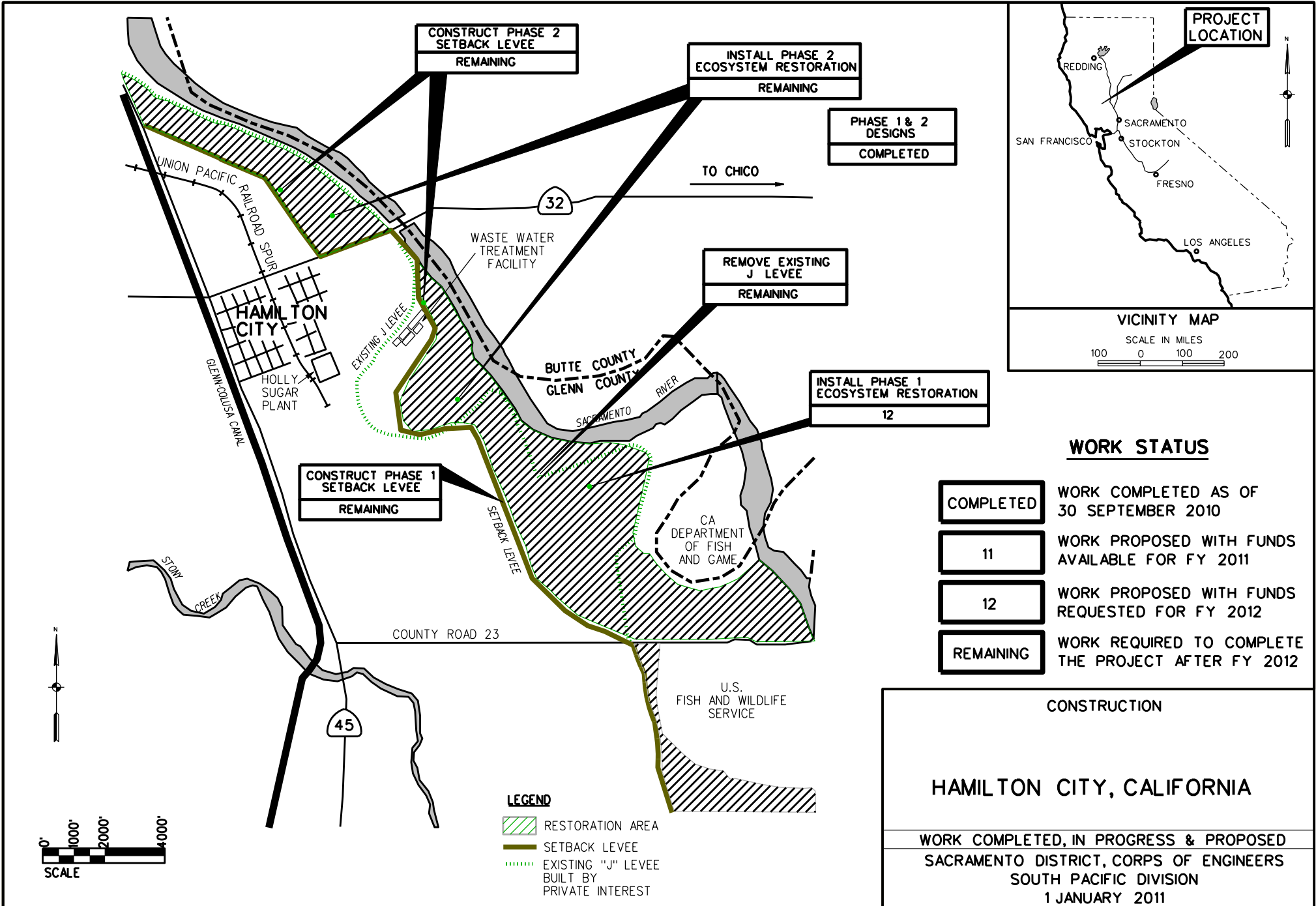
District: Sacramento

Hamilton City, California

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal first cost estimate of \$34,100,000 is the same as the latest estimate presented to congress (FY2011).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: A combined Environmental Impact Statement/Environmental Impact Report (EIS/EIR), along with the Final Feasibility Report, was completed in July 2004.

OTHER INFORMATION: The district is finalizing an Limited Reevaluation Report (LRR) by September 2011 focusing on updating costs and benefits. Findings show that there are some minor scope refinements resulting in savings to costs. The LRR will result in a refined down feasibility study contingencies and costs that are within the original authorized project cost; thus the 902 limit is fully intact



APPROPRIATION TITLE: Construction - Environmental Restoration

PROJECT: Napa River Salt Marsh Restoration Project, CA (Continuing)

LOCATION: Project is located in the northern portion of San Francisco Bay, approximately 45 miles north of San Francisco, California, adjacent to the lower reach of the Napa River in the counties of Napa, Solano, and Sonoma.

DESCRIPTION: The Napa River Salt Marsh Wetlands originally encompassed 25,000 acres. Agriculture and urban and rural development have reduced the wetland to approximately 30% of their former extent. In 1994 the Cargill Salt Company ceased production of salt and sold over 9,800 acres of lands in the study area to the State of California. The land is now managed by the California Department of Fish and Game (DFG). The Napa River Salt Marsh Project would restore 9,460 acres of wetlands through combination of water control structures and breaching existing berms.

AUTHORIZATION: Water Resources Development Act 2007

REMAINING BENEFIT - REMAINING COST RATIO: Not applicable.

TOTAL BENEFIT - COST RATIO: Both Cost Effectiveness and an Incremental Cost Analysis (CE/IC) were performed in order to evaluate the efficiency of restoration alternatives, and to help in the identification of the National Ecosystem Restoration Plan (NER). A CE/IC analysis was completed in the feasibility study. The Incremental Cost Analysis (ICA) provided the cost-efficiency of the alternatives in achieving the Planning Objective of ecosystem restoration, with benefits quantified from the modified Habitat Evaluation Procedure (HEP) analysis. Once habitat features were selected for each pond (taking into account the results of the habitat cost-effectiveness analysis and other pond or tidal marsh status) the Final CE/ICA on the alternative plans was selected. The alternative plans are comprised of combinations of pond groupings: Pond 4, 5, 6, and 6A; and Ponds 7, 7A, and 8. Pond benefits were added to determine the total habitat benefits for each group.

INITIAL BENEFIT - COST RATIO: The benefits were determined using a modified Habitat Evaluation Procedure (HEP) analysis and are presented in non-monetary terms (Habitat Units, or HUs).

BASIS OF BENEFIT - COST RATIO: Project justification is based on nonmonetary benefits of wetland habitat restoration.

Division: South Pacific

District: San Francisco

Napa River Salt Marsh Restoration, California

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST	STATUS (1 Jan 2011)	PERCENT COMPLETE	COMPLETION SCHEDULE
Estimated Federal Cost		\$ 35,809,800		Entire project	1	2024
Estimated Non-Federal Cost		\$ 19,282,200				
Cash Contribution	\$ 205,200					
Other Costs (includes LERRDs and WRDA 2007 in-kind contribution credits)	\$19,077,000					
Total Estimated Project Cost		\$55,092,000				
Allocation to 30 September 2008		\$ 0				
Allocation for FY 2009		0				
Allocation for FY 2010		285,000	1/			
Recovery Act Allocations to Date		0				
President's Budget for FY 2011		12,000,000				
Allocation through FY 2011		12,285,000	34			
Budget for FY 2012		9,500,000	62			
Programmed Balance to Complete after FY 2012		\$ 14,024,800				
Unprogrammed Balance to Complete after FY 2012		0				

PHYSICAL DATA
Restoration of seven salt marsh wetlands; breach existing berms;
construct water control features.

1/\$185,000 was reprogrammed from Hamilton Airfield Wetlands Restoration to support Value Engineering (VE) study, Agency Technical Review ATR and Bidability, Constructability, Operability and Environmental (BCOE) requirements. Reprogramming actions were approved by the Non-Federal sponsor and congressional proponent.

JUSTIFICATION: Human impacts have destroyed most of the original wetlands in the San Francisco Bay area resulting in approximately 90% loss since the 1900s. The degradation of fish and wildlife resources associated with the loss of these historic wetlands around San Francisco Bay has resulted in several species being listed as threatened or endangered (delta smelt, spittail, steelhead trout, Chinook salmon. It is critical to restore the wetland now to prevent permanent loss of listed species in the San Francisco Bay. Also, pond salinity is increasing and ecological values are declining in several of the ponds. Several ponds are considered a potential threat to the ecology of the North Bay region because of the presence of larger quantities and high concentration of residual salts.

Division: South Pacific

District: San Francisco

Napa River Salt Marsh Restoration, California

FISCAL YEAR 2011: The current amount of \$12,000,000 is being applied as follows:

Initiate construction of Ponds 7,7A	\$10,700,000
Planning, Engineering and Design	8,300,000
Construction Management	500,000
Total	\$ 12,000,000

FISCAL YEAR 2012: The requested amount of \$9,500,000 will be applied as follows:

Initiate construction of Ponds 6 and 6A	\$9,000,000
Construction Management	500,000
Total	\$ 9,500,000

Division: South Pacific

District: San Francisco

Napa River Salt Marsh Restoration, California

14 February 2011

SPD-115

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986 and the Water Resources Development Act of 2007, the non-Federal sponsor must comply with the requirements listed below:

	Payments During Construction and Reimbursements		Annual Operation, Maintenance, Repairs, Rehabilitation, and Replacement Costs
Requirements of Local Cooperation			
Provide lands, easements, rights of way, and dredged material disposal areas.	\$ 8,110,000		N/A
WRDA 2007 Creditable in-kind contributions \$	5,720,000	N/A	
Non-Federal In-kind Cost Share \$	5,247,000	N/A	
Construction costs allocated to fish and wildlife restoration in cash to bring the Non-Federal share of project costs to 35 percent for ecosystem restoration Features and 50% for recreation features with the Water Resources Development Act of 1986.	\$ 205,200		N/A
Total Non-Federal Costs	\$19,282,200		N/A

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

Division: South Pacific

District: San Francisco

Napa River Salt Marsh Restoration, California

STATUS OF LOCAL COOPERATION: The California Department of Fish and Game (DFG), the local sponsor for the construction phase, has agreed to comply with all project requirements. The California State Coastal Conservancy (SCC) was the non-federal sponsor during the development of the Feasibility Report. SCC requested a PED cost-share agreement deviation that would limit the total cost of PED. The Assistant Secretary of the Army for Civil Works (ASA(CW)) denied the request and the PED Agreement was never signed. The Project Partnership Agreement (PPA) would apply to design and construction and is scheduled to be signed in February 2011.

The current non-Federal cost estimate is \$19,282,200. In a letter dated 11 May 2010, the non-Federal sponsor has indicated it is financially capable and willing to contribute the non-Federal share. Our analysis of the non-federal sponsor's financial capability to participate in the project affirms that the sponsor has a reasonable and implementable plan for meeting its financial commitment.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$35,809,800 is the same as last presented to Congress (FY 2010).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: Environmental Impact Statement/Environmental Impact Report completed in 2004 and the Record of Decision signed 17 Nov 2005.

OTHER INFORMATION: The final Feasibility Report, completed in June 2004, recommended seven of the twelve salt ponds be restored to salt marsh wetlands, Ponds 4, 5, 6, 6A, 7, 7A and 8. The Chief's report was signed in December 2004. OMB clearance was provided in November 2005. Design and construction of Ponds 1, 1A, 2, 2A, 3, 4, and 5 are complete. The non-Federal sponsor constructed Ponds 4 and 5 and completed 90% design drawings, specification, and estimate for Ponds 6-8. Water Resource Development Act (WRDA) 2007 authorized crediting the non-Federal sponsor for work completed on the approved project before a PPA is signed, as identified above.

The total project authorization in WRDA 2007 is for \$134,500,000 with an estimated Federal cost of \$87,500,000 and an estimate non-Federal cost of \$47,000,000. Although included in the authorization, non-policy compliant components to restore or enhance Salt Ponds 1, 1A, 2 and 3, and construction of a recycled water pipeline extending from the pumping station managed by Sonoma Valley County Sanitation District to the project are excluded from project costs in this justification document.

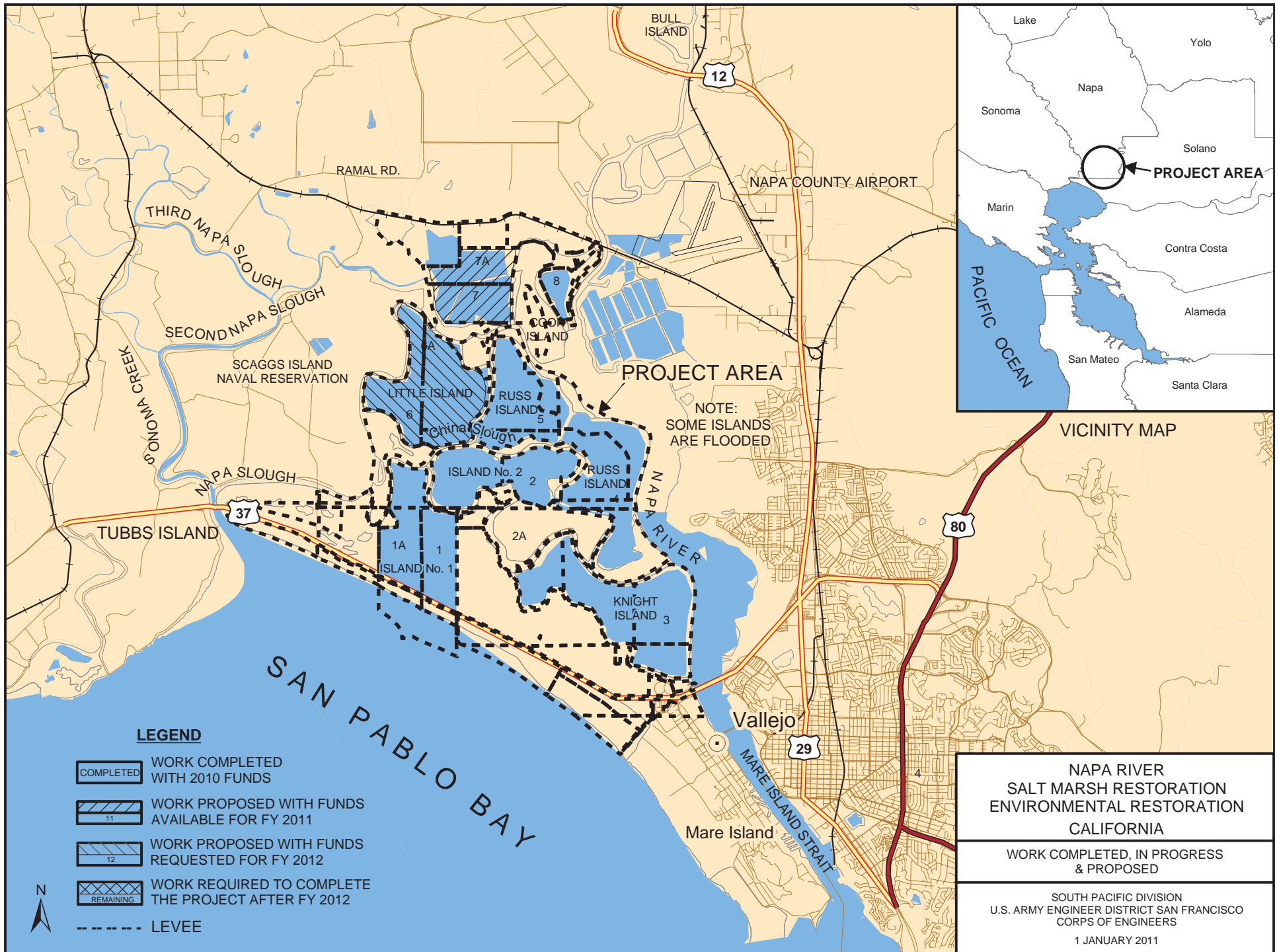
Division: South Pacific

District: San Francisco

Napa River Salt Marsh Restoration, California

14 February 2011

SPD-117



Operation and Maintenance

Key to Abbreviations:

N = Navigation

FRM = Flood Risk Management

Rec = Recreation

Hydro = Hydropower

ES = Environmental Stewardship

WS = Water Supply

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Abiquiu Dam, New Mexico

AUTHORIZATION: Flood Control Act of 1948, 1950, 1960.

LOCATION AND DESCRIPTION: Abiquiu Dam is located in Rio Arriba County, approximately 6 miles west of the town of Abiquiu, 32 miles upstream from the confluence of the Rio Chama and the Rio Grande and approximately 120 miles north of Albuquerque, New Mexico. Abiquiu Dam drainage is 2,146 square miles, a rolled earth filled structure with a maximum height above streambed of 341 ft. The crest length is 1,800 ft with a top width of 30 ft and a maximum bottom width of 2,000 ft. The reservoir provides 545,784 acre-feet of flood control and sediment storage. Storage capacity at the spillway crest is 1,192,801 acre-feet which includes 43,748 acre-feet for sediment reserve. Outlet works consist of a 12 ft. dia. 2,260 foot-long tunnel, intake structure, gate chamber, and flip bucket. The uncontrolled spillway is in a rock cut located 4,000 ft northeast of the project. Non-Federal Hydroelectric, developed by Los Alamos County, was constructed in FY 90, 13.2 MW. Recreation facilities include Day Use picnic shelters, flush restroom and an overlook structure. Campground and two boat ramps were completed in FY 81. Project has been operational since 1963.

RECOVERY ACT ALLOCATIONS TO DATE: \$2,498,000

PRESIDENT'S BUDGET FOR FY 2011: \$2,891,000

BUDGET FOR FY 2012: M: \$1,160,000 **O:** \$2,578,000 **T:** \$3,738,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: \$3,242,000 – funding provides for routine operations and maintenance for flood risk management; compliance with Comprehensive Evaluation of Project Datums requirements. These funds would improve flood risk management performance by reducing the risk of failure, flooding, loss of life, environmental damage, and providing for increased efficiency and lower future repair costs.

Rec: \$282,000 – funding provides for routine operations and maintenance for recreation; implementation of law enforcement agreements.

Hydro: N/A

ES: \$214,000 – funding provides for routine operations and maintenance for environmental stewardship; monitoring and management of endangered species; specialized habitat management; and to ensure historical, archeological and cultural resources are protected.

WS: N/A

OTHER INFORMATION: As a risk based assessment of dam safety, this project is rated a Dam Safety Action Classification 3 which will require out-year funding to help reduce the risk at the project with regard to public safety.

Division: South Pacific

District: Albuquerque

Project Name: Abiquiu Dam, New Mexico

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Alamo Lake Dam, AZ

AUTHORIZATION: Flood Control Act of 1944

LOCATION AND DESCRIPTION: Located 25 miles north of Wenden, AZ and 120 miles northwest of Phoenix, AZ, the project elements being operated and maintained consist of an earth fill dam, outlet works, spillway, service roads, reservoir, and a recreation area.

RECOVERY ACT ALLOCATIONS TO DATE: \$ 454,000

PRESIDENT'S BUDGET FOR FY 2011: \$3,019,000

BUDGET FOR FY 2012: M: \$849,000. O: \$909,000. T: \$1,758,000.

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: \$1,636,000 – funding provides for maintenance of dam and appurtenant structures, entry permits, encroachment and outgranting and operation of dam; service facility and grounds, utilities, water control and reservoir operations, hydrographic instrumentation, compliance & utilization inspections, and formal periodic inspections and monitoring.

Rec: \$50,000 – funding provides for routine operations of recreation facilities.

Hydro: N/A

ES: \$72,000 – funding provides for labor and travel funds for cultural staff to update the compliance plan which is needed for the cultural/historic resources here as well as updated information on cultural resources status.

WS: N/A

OTHER INFORMATION: None.

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Division: South Pacific

District: Los Angeles

Project Name: Alamo Lake, AZ

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Black Butte Lake, CA

AUTHORIZATION: Flood Control Act of 1944

LOCATION AND DESCRIPTION: The project is located on Stony Creek, a tributary of the Sacramento River, about 9 miles west of the town of Orland, California and comprises an earth fill dam, maximum height of 140-feet, six dikes, an ungated spillway, creating a reservoir with a gross storage capacity of 160,000-acre-feet. The project is located in Glenn and Tehama counties.

RECOVERY ACT ALLOCATION TO DATE: \$1,541,000

PRESIDENT'S BUDGET FOR FY2011: \$2,367,000

BUDGET FOR FY2012: M: \$271,000 **O:** \$ 2,066,000 **T:** \$2,337,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2012:

N: N/A

FRM: \$1,295,000 – Funding provides for routine required dam operations and maintenance. Operations includes: limited execution of gate operation, dam safety and post earth quake inspections, emergency actions, monitoring instrumentation, data collection, Water Management, Real Estate compliance and out-grant inspections. Maintenance includes: limited critical maintenance, repairs to major equipment, embankment, fire suppression, security system, heating, ventilation and air conditioning, vegetation control, and Water Control Data Systems modifications

Rec: \$881,000 - Funding provides for routine operations and maintenance for recreation; inspection of recreational facilities; environmental compliance; implementation of law enforcement agreements; real estate management; contract administration; water safety outreach and environmental education; partnerships and collaboration with stakeholders; and enforcement of Title 36, CFR, Chapter 111, Part 327, "Rules and Regulations Governing Public Use of Corps of Engineers Water Resources Development Projects".

Hydro: N/A

ES: \$161,000 – Funding provides for routine operations and maintenance for environmental stewardship; monitoring and management of Threatened, Endangered, and Special Status species; monitoring and management of invasive species; conservation, restoration, and management of natural resources; protection of historical, archeological, and cultural resources; as well as support for Geographic Information System and level one inventories, for endangered species as required by regulation.

WS: N/A

OTHER INFORMATION: None

Division: South Pacific

District: Sacramento

Project Name: Black Butte Lake, CA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Buchanan Dam – H.V. Eastman Lake, CA

AUTHORIZATION: Flood Control Act of 1962

LOCATION AND DESCRIPTION: The project consists of an earthfill dam on the Chowchilla River, about 16 miles NE of the City of Chowchilla, CA, creating a reservoir with gross storage capacity of 150,000-acre-feet for flood control, irrigation, recreation, and other purposes. The project also includes about 2 miles of channel improvement work and levee construction on Ash and Berenda Sloughs, tributary channels of the river. The project is located in Madera and Mariposa Counties.

RECOVERY ACT ALLOCATIONS TO DATE: \$2,709,000

PRESIDENT’S BUDGET FOR FY2011: \$2,119,000

BUDGET FOR FY2012: M: \$302,000 O: \$1,730,000 T: \$2,032,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2012:

N: N/A

FRM: \$1,039,000 – Funding provides for routine required dam operations and maintenance. Operations includes: limited execution of gate operation, dam safety and post earth quake inspections, emergency actions, monitoring instrumentation, data collection, Water Management, Real Estate compliance and out-grant inspections. Maintenance includes: limited critical maintenance, repairs to major equipment, embankment, fire suppression, security system, heating, ventilation and air conditioning, vegetation control, and Water Control Data Systems modifications.

Rec: \$789,000 - Funding provides for routine operations and maintenance for recreation; inspection of recreational facilities; environmental compliance; implementation of law enforcement agreements; real estate management; contract administration; water safety outreach and environmental education; partnerships and collaboration with stakeholders; and enforcement of Title 36, CFR, Chapter 111, Part 327, “Rules and Regulations Governing Public Use of Corps of Engineers Water Resources Development Projects”.

Hydro: N/A

ES: \$204,000 - Funding provides for routine operations and maintenance for environmental stewardship; monitoring and management of Threatened, Endangered, and Special Status species; monitoring and management of invasive species; conservation, restoration, and management of natural resources; protection of historical, archeological, and cultural resources; as well as support for Geographic Information System and level one inventories, for endangered species as required by regulation.

WS: N/A

OTHER INFORMATION: None

Division: South Pacific District: Sacramento Project Name: Buchanan Dam-H.V. Eastman Lake, CA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Channel Islands Harbor, CA

AUTHORIZATION: Rivers and Harbors Act of 1954 (House Doc. 362, 83rd Congress, 2nd session)

LOCATION AND DESCRIPTION: Located in Ventura County, 65 miles NW of the City of Los Angeles. The project consists of an Entrance Channel, Sand Trap, Detached Breakwater, and two Jetties. The Harbor was designed to trap sand and bypass it to the down coast beaches at a frequency of every other year. Based on WRDA 1996, the project is to maintain a littoral sediment balance of 1,400,000 cubic meters bi-annually.

RECOVERY ACT ALLOCATIONS TO DATE: \$ 0
PRESIDENT'S BUDGET FOR FY 2011: \$4,600,000
BUDGET FOR FY 2012: M: \$525,000 O: \$0 T: \$525,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$525,000 will be used to develop plans and specifications and environmental documentation for maintenance dredging.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: The Harbor is a "critical harbor of refuge" and the U.S. Coast Guard is stationed in the harbor.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Cochiti Lake, New Mexico

AUTHORIZATION: Flood Control Act of 1960 (P.L. 86-645), supplemental authorization PL 88-293 and the 1976 Water Resources Development Act (PL 94-587).

LOCATION AND DESCRIPTION: Cochiti Lake is located in Sandoval County, on the Pueblo de Cochiti lands approximately 50 river miles north of Albuquerque, New Mexico. The dam is located at river mile 340 on the Rio Grande. Cochiti Lake drainage is 11,695 square miles, a rolled earth filled structure with a maximum height above streambed of 251 ft. The dam crest length, which includes the spillway crest, is 28,815 ft (5.4 miles), with a top width of 30 ft and a maximum bottom width of 1,760 ft. Storage capacity at the spillway crest is 582,019 acre-feet which includes 78,640 acre-feet for recreation and sediment control. The outlet works consists of a 1,363 foot-long, gate controlled, 3-barrel conduit; intake structure; gate chamber; and flip bucket. The spillway is located in the south end of the embankment which is the left abutment of the Santa Fe River. It is a concrete gravity uncontrolled structure with a notched ogee section. Project has been operational since 1976.

RECOVERY ACT ALLOCATIONS TO DATE: \$2,697,000

PRESIDENT'S BUDGET FOR FY 2011: \$3,546,000

BUDGET FOR FY 2012: M: \$577,000 **O:** \$2,663,000 **T:** \$3,240,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: \$2,492,000 – funding provides for routine operations and maintenance for flood risk management; compliance with Comprehensive Evaluation of Project Datums requirements. These funds would improve flood risk management performance by reducing the risk of failure, flooding, loss of life, environmental damage, and providing for increased efficiency and lower future repair costs.

Rec: \$516,000 – funding provides for routine operations and maintenance for recreation; implementation of law enforcement agreements.

Hydro: N/A

ES: \$232,000 – funding provides for routine operations and maintenance for environmental stewardship; monitoring and management of endangered species; specialized habitat management; and to ensure historical, archeological and cultural resources are protected.

WS: N/A

OTHER INFORMATION: Cochiti Lake has an opportunity to provide significant water management benefits for the middle Rio Grande valley. Realizing this opportunity will require changes to operations currently constrained by downstream conditions. Since changes will also impact Pueblo de Cochiti resources and interests, they must be addressed and closely coordinated with the Pueblo.

Division: South Pacific

District: Albuquerque

Project Name: Cochiti Lake, New Mexico

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Conchas Lake, New Mexico

AUTHORIZATION: Emergency Relief Act of 1935, P.L. 74-738, Flood Control Act of 1936 and amended by the Flood Control Act of 1938

LOCATION AND DESCRIPTION: Conchas Dam and Reservoir is located in San Miguel County, New Mexico on the Canadian River 743 miles upstream from the mouth of the Canadian and Arkansas Rivers and approximately 34 miles NW of Tucumcari, New Mexico. Conchas Dam and Reservoir drainage area is 7,409 square miles. The dam consists of a concrete gravity main section with earth dikes on each side having a combined length of about 3.75 miles. The gravity section is 1,250 feet long with a top roadway width of 18 ft. and maximum height of 200 ft above the streambed. The total storage capacity at the spillway crest is 513,900 acre-feet (198,170 acre-feet for flood control; 254,200 acre feet for water conservation and irrigation; and 61,530 acre-feet dead storage). Outlet works consist of six regulating conduits, intake structure, gate chamber, and stilling basin. The spillway is a concrete gravity uncontrolled structure located in the main dam. The north dike contains a concrete ogee-type emergency spillway. Recreation facilities include two Day Use areas with picnic shelters, flush restrooms, overlook structures; two Campgrounds, swim beach, and two boat ramps. Project has been operational since 1939

RECOVERY ACT ALLOCATIONS TO DATE: \$1,859,000

PRESIDENT'S BUDGET FOR FY2011: \$2,067,000

BUDGET FOR FY2012: M: \$1,800,000 **O:** \$1,517,000 **T:** \$3,317,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: \$3,074,000 – funding provides for routine operations and maintenance for flood risk management; compliance with Comprehensive Evaluation of Project Datums requirements; and access bridge seismic restraint for dam safety. These funds would improve flood risk management performance by reducing the risk of failure, flooding, loss of life, environmental damage, and providing for increased efficiency and lower future repair costs.

Rec: \$127,000 – funding provides for routine operations and maintenance for recreation; implementation of law enforcement agreements; perform water management analysis (control and quality); real estate management; and environmental compliance.

Hydro: N/A

ES: \$116,000 – funding provides for routine operations and maintenance for environmental stewardship; monitoring and management of endangered species; specialized habitat management; and to ensure historical, archeological and cultural resources are protected.

WS: N/A

OTHER INFORMATION: There have been on-going discussions for several years with the local community and New Mexico State Parks representatives regarding the need to rehabilitate and modernize the Southside Recreation Area. Results from a Market Analysis determined it was not economically feasible to rehabilitate the Conchas Lodge. Work is underway to obtain the environmental and cultural resources clearances needed so the Lodge can be demolished.

Division: South Pacific

District: Albuquerque

Project Name: Conchas Lake, New Mexico

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Coyote Valley Dam, Lake Mendocino, CA

AUTHORIZATION: Flood Control Act of 1950; Pub. L. No. 81-516, § 204, 64 Stat. 163

LOCATION AND DESCRIPTION: Lake Mendocino is on the Russian River about 5 miles northeast of Ukiah in Mendocino County. The original purpose was flood risk management and water supply, but recreation was added after the original authorization. The project also provides environmental outputs.

RECOVERY ACT ALLOCATIONS TO DATE: \$10,950,000

PRESIDENT'S BUDGET FOR FY2011: \$3,652,000

BUDGET FOR FY2012: M: \$605,000 O: \$3,042,000 T: \$3,647,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: \$1,707,000 - Funding provides for routine operations and maintenance for flood risk management; perform water management analysis (control and quality); environmental compliance; and water management of water control data systems. These funds would improve flood risk management performance by reducing the risk of failure, flooding, loss of life, environmental damage, and providing for increased efficiency and lower future repair costs.

Rec: \$1,529,000 - Funding provides for routine operations and maintenance for recreation; implementation of law enforcement agreements; real estate management; and environmental compliance.

Hydro: N/A

ES: \$391,000 - Funding provides for routine operations and maintenance for congressional authorized environmental mitigation and stewardship; monitoring and management of endangered species; specialized habitat management; and to ensure historical, archeological and cultural resources are protected..

WS: \$20,000 - funds provide for routine operations of the dam to accomplished congressionally mandated / authorized water supply mission.

OTHER INFORMATION: None

Division: South Pacific District: San Francisco Project Name: Coyote Valley Dam, Lake Mendocino, CA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Dry Creek (Warm Springs) Lake and Channel, CA

AUTHORIZATION: Flood Control Act of 1962, Pub. L. No. 87-874, § 203, 76 Stat. 1173; Water Resources Control Act of 1974, Pub. L. No. 93-251, § 95, 88 Stat. 12

LOCATION AND DESCRIPTION: The project is located on Dry Creek, a tributary of the Russian River about 75 miles north of San Francisco, California. The primary authorized purpose is flood risk management, recreation and water supply, but also provides environmental outputs.

RECOVERY ACT ALLOCATIONS TO DATE: \$13,198,000

PRESIDENT'S BUDGET FOR FY2011: \$5,831,000

BUDGET FOR FY2012: M: \$667,000 O: \$4,957,000 T: \$5,624,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: \$2,298,000 - Funding provides for routine operations and maintenance for flood risk management; perform water management analysis (control and quality); environmental compliance; and water management of water control data systems. These funds would improve flood risk management performance by reducing the risk of failure, flooding, loss of life, environmental damage, and providing for increased efficiency and lower future repair costs.

Rec: \$2,035,000 - Funding provides for routine operations and maintenance for recreation; implementation of law enforcement agreements; real estate management; and environmental compliance.

Hydro: N/A

ES: \$1,271,000 - Funding provides for routine operations and maintenance for congressional authorized environmental mitigation and stewardship; monitoring and management of endangered species; specialized habitat management; and to ensure historical, archeological and cultural resources are protected.

WS: \$20,000 – funds provide for routine operations of the dam to accomplish congressionally mandated / authorize water supply mission.

OTHER INFORMATION: None

Division: South Pacific

District: San Francisco

Project Name: Dry Creek (Warm Springs) Lake
and Channel, CA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Farmington Dam, CA

AUTHORIZATION: Flood Control Act of 1944

LOCATION AND DESCRIPTION: The project is located on Littlejohn Creek about 3½ miles upstream from Farmington and about 18 miles east of Stockton, and consists of a 56-foot-high earth-fill dam and an ungated saddle spillway, creating a reservoir with a gross storage capacity of 52,000 acre feet. The project is located in San Joaquin and Stanislaus counties.

RECOVERY ACT ALLOCATIONS TO DATE: \$385,000

PRESIDENT'S BUDGET FOR FY2011: \$450,000

BUDGET FOR FY2012: M: \$92,000 O: \$378,000 T: \$470,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2012:

N: N/A

FRM: \$470,000 – Funding provides for routine required dam operations and maintenance. Operations includes: limited execution of gate operation, dam safety and post earth quake inspections, emergency actions, monitoring instrumentation, data collection, Water Management, Real Estate compliance and out-grant inspections. Maintenance includes: limited critical maintenance, repairs to major equipment, embankment, fire suppression, security system, heating, ventilation and air conditioning, vegetation control, and Water Control Data Systems modifications.

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None

Division: South Pacific

District: Sacramento

Project Name: Farmington Dam, CA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Galisteo Dam, New Mexico

AUTHORIZATION: Flood Control Act of 1960 (P.L. 86-645)

LOCATION AND DESCRIPTION: Galisteo Dam is located in Santa Fe County, approximately 20 miles southwest of Santa Fe, New Mexico on Galisteo Creek 11.8 miles upstream from the confluence of the Rio Grande and approximately 40 miles north of Albuquerque, New Mexico. Galisteo Dam drainage area is 596 square miles. The dam is a rolled earth filled structure with a maximum height above streambed of 165 ft. The dam crest length is 3,210 ft with a top width of 20 ft. Storage capacity at the spillway crest is 89,468 acre-feet which includes 9,320 acre-feet for sediment reserve. The outlet works consists of a 10 ft. dia. ungated 810 foot-long tunnel, and flip bucket. The uncontrolled spillway is a rock cut trapezoidal channel located on the right abutment. Dam safety modifications were completed in 1998 to raise the dam and widen the spillway to the present configuration. Recreation facilities include day-use picnic shelters, a vault restroom and an overlook structure. Project has been operational since 1970.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

PRESIDENT'S BUDGET FOR FY 2011: \$927,000

BUDGET FOR FY 2012: M: \$92,000 **O:** \$846,000 **T:** \$938,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: \$867,000 – funding provides for routine operations and maintenance for flood risk management. These funds would improve flood risk management performance by reducing the risk of failure, flooding, loss of life, environmental damage, and providing for increased efficiency and lower future repair costs.

Rec: \$50,000 – funding provides for routine operations and maintenance for recreation; implementation of law enforcement agreements.

Hydro: N/A

ES: \$21,000 – funding provides for routine operations and maintenance for environmental stewardship.

WS: N/A

OTHER INFORMATION: Salt Cedar Removal will require on-going eradication and area restoration with native vegetation.

Division: South Pacific

District: Albuquerque

Project Name: Galisteo Dam, New Mexico

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Hidden Dam - Hensley Lake, CA

AUTHORIZATION: Flood Control Act of 1962

LOCATION AND DESCRIPTION: The project consists of a 163-foot-high earth-fill dam on the Fresno River about 15 miles NE of Madera, with a reservoir with gross storage capacity of 90,500-acre-feet. The project is located in Madera County.

RECOVERY ACT ALLOCATIONS TO DATE: \$1,566,000

PRESIDENT'S BUDGET FOR FY2011: \$2,163,000

BUDGET FOR FY2012: M: \$180,000 **O:** \$2,092,000 **T:** \$2,272,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2012:

N: N/A

FRM: \$1,425,000 – Funding provides for routine required dam operations and maintenance. Operations includes: limited execution of gate operation, dam safety and post earth quake inspections, emergency actions, monitoring instrumentation, data collection, Water Management, Real Estate compliance and out-grant inspections. Maintenance includes: limited critical maintenance, repairs to major equipment, embankment, fire suppression, security system, heating, ventilation and air conditioning, vegetation control, and Water Control Data Systems modifications.

Rec: \$769,000 - Funding provides for routine operations and maintenance for recreation; inspection of recreational facilities; environmental compliance; implementation of law enforcement agreements; real estate management; contract administration; water safety outreach and environmental education; partnerships and collaboration with stakeholders; and enforcement of Title 36, CFR, Chapter 111, Part 327, "Rules and Regulations Governing Public Use of Corps of Engineers Water Resources Development Projects".

Hydro: N/A

ES: \$78,000 - Funding provides for routine operations and maintenance for environmental stewardship; monitoring and management of Threatened, Endangered, and Special Status species; monitoring and management of invasive species; conservation, restoration, and management of natural resources; protection of historical, archeological, and cultural resources; as well as support for Geographic Information System and level one inventories, for endangered species as required by regulation.

WS: N/A

OTHER INFORMATION: None

Division: South Pacific

District: Sacramento

Project Name: Hidden Dam – Hensley Lake,
California

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Humboldt Harbor and Bay, CA

AUTHORIZATION: River and Harbor Act of 1910, Pub. L. No. 61-264, 36 Stat. 630, 661; River and Harbor Act of 1930, Pub. L. No. 71-520, 46 Stat. 918, 932; River and Harbor Act of 1935, Pub. L. No. 74-409, 49 Stat. 1028, 1038; River and Harbor Act of 1937, 75 P.L. 392, 50 Stat. 844, 849; River and Harbor Act of 1968, Pub. L. No. 90-483, § 101, 82 Stat. 731, 732.

LOCATION AND DESCRIPTION: This project is located at Eureka, California, about 280 miles north of San Francisco. Project operations and maintenance provides for annual inspection and periodic repair of the North and South jetties, and annual maintenance dredging of the Bar and Entrance Channels; the North Bay Channel, the Samoa Channel, including the Turning Basin; the Eureka Channel; and the Fields Landing Channel. The permanently designated Humboldt Open Ocean Disposal Site is utilized for disposal of all dredged materials.

RECOVERY ACT ALLOCATIONS TO DATE: \$0
PRESIDENT'S BUDGET FOR FY2011: \$5,848,000
BUDGET FOR FY2012: M: \$2,800,000 O: \$ 0 T: \$2,800,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$2,800,000 - Funding provides for annual maintenance dredging of the Bar and Entrance Channel by Government Dredge ESSAYONS. Humboldt Harbor is the only Deep Draft harbor in California north of San Francisco.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Storm activity and wave action cause sediment to shoal in the Entrance Channel and create extremely hazardous navigation conditions. Annual dredging of the Harbor entrance is therefore, critical to eliminate this hazard as Humboldt is the only deep draft Harbor of Refuge between San Francisco Bay and Coos Bay, Oregon.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Isabella Lake, CA

AUTHORIZATION: Flood Control Act of 1944

LOCATION AND DESCRIPTION: The dam is located about 50 miles NE of Bakersfield, near the confluence of the north and south forks of the Kern River; the auxiliary dam is about ½ mile east of the main dam. Project comprises a 185-foot-high earth fill dam, an ungated concrete spillway, and a 100-foot-high earth fill auxiliary dam, creating a reservoir with a gross storage capacity of 570,000-acre-feet. The project is located in Kern County.

RECOVERY ACT ALLOCATIONS TO DATE: \$135,000

PRESIDENT'S BUDGET FOR FY2011: \$1,956,000

BUDGET FOR FY2012: M: \$465,000 O: \$1,256,000 T: \$1,721,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2012:

N: N/A

FRM: \$1,444,000 - Funding provides for routine required dam operations and maintenance. Operations includes: limited execution of gate operation, dam safety and post earth quake inspections, emergency actions, monitoring instrumentation, data collection, Water Management, Real Estate compliance and out-grant inspections. Funding also includes initiation of several interim risk reduction measures. Maintenance includes: limited critical maintenance, repairs to major equipment, embankment, fire suppression, security system, heating, ventilation and air conditioning, vegetation control, and Water Control Data Systems modifications.

Rec: N/A

Hydro: N/A

ES: \$277,000 - - Funding provides for routine operations and maintenance for environmental stewardship; monitoring and management of Threatened, Endangered, and Special Status species; monitoring and management of invasive species; conservation, restoration, and management of natural resources; protection of historical, archeological, and cultural resources; as well as support for Geographic Information System and level one inventories, for endangered species as required by regulation.

WS: N/A

OTHER INFORMATION: Project is currently not fully able to provide the benefits for which it was designed and constructed. A dam safety investigation is currently underway to determine the appropriate remediation efforts.

Division: South Pacific

District: Sacramento

Project Name: Isabella Lake, CA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Jemez Canyon Dam, New Mexico

AUTHORIZATION: Flood Control Act of 1948 (P.L. 80-858) and Flood Control Act of 1950 (P.L. 81-516).

LOCATION AND DESCRIPTION: Jemez Canyon Dam is located in Sandoval County, approximately 5 miles northwest of Bernalillo, New Mexico on the Rio Jemez 2.8 miles upstream from the confluence of the Rio Grande and approximately 35 miles northwest of Albuquerque, New Mexico. Jemez Canyon Dam drainage is 1,034 square miles. The dam is a rolled earth filled structure with a maximum height above streambed of 150 ft. The crest length is 861 ft with a top width of 23 ft. Storage capacity at the spillway crest is 97,425 acre-feet which include 24,425 acre-feet for sediment reserve. Project has been operational since 1953.

RECOVERY ACT ALLOCATIONS TO DATE: \$950,000

PRESIDENT'S BUDGET FOR FY 2011: \$1,398,000

BUDGET FOR FY 2012: M: \$430,000 O: \$725,000 T: \$1,155,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: \$1,109,000 – funding provides for routine operations and maintenance for flood risk management. These funds would improve flood risk management performance by reducing the risk of failure, flooding, loss of life, environmental damage, and providing for increased efficiency and lower future repair costs.

Rec: \$0

Hydro: N/A

ES: \$46,000 – funding provides for routine operations and maintenance for environmental stewardship; monitoring and management of endangered species; specialized habitat management; and to ensure historical, archeological and cultural resources are protected.

WS: N/A

OTHER INFORMATION: Routine O&M funds were used to continue on-going Endangered Species Act Biological Opinion work to finalize a preferred alternative for the Jemez Sediment Mobilization and Pool Mitigation studies and begin the Environmental Assessment. Selection of the preferred alternative (the plan) will determine future funding needs to finalize the Environmental Assessment and implement the plan. Jemez Canyon Dam has an opportunity to provide significant water and sediment management benefits for the middle Rio Grande valley. Realizing this opportunity will require changes to operations which may impact Santa Ana Pueblo resources and interests requiring mitigation. Such impacts are being investigated via a joint Long Term Management Plan with the Pueblo. Work also continues on addressing impacts to the Pueblo's ancestral Tamaya village which has drainage problems, attributable to Corps past construction of an encircling "ring levee" for high flood storage protection, that requires repair.

Division: South Pacific

District: Albuquerque

Project Name: Jemez Canyon Dam, New Mexico

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: John Martin Reservoir, Colorado

AUTHORIZATION: Flood Control Act of 1936 (P.L. 76-868) as Caddoa Reservoir renamed in 1940.

LOCATION AND DESCRIPTION: John Martin Reservoir is located in Bent County, Colorado about midway between Lamar and Las Animas on the Arkansas River at river mile 1159 approximately 58 miles upstream from the Colorado – Kansas state line. John Martin Reservoir drainage is 18,130 square miles, has a concrete section, an earth section and two earth wing dikes. The over all structure is 2.6 miles long with a maximum height of 120 ft. above streambed and an overflow gated spillway. Total capacity of the reservoir at the top of the flood control is 603,465 acre-feet (259,417 for flood control and 344,048 for conservation and recreation storage). The concrete gravity section is 1,644 ft. and 118 ft. high. The earth section is 2,600 ft long and 130 ft. high. The two wing dams are 3,700 ft. long 20 ft. high on the north and 5,800 ft long and 100 ft high on the south where they tie to the concrete section. Storage capacity at the spillway crest is 232,940 acre feet. There are six outlet conduits in the dam. The spillway is an ogee weir with sixteen sections controlled by Tainter gates with a nest crest of 1,024 feet. There are 3 recreation areas consisting of 2,300 areas. Project has been in operation since 1943.

RECOVERY ACT ALLOCATIONS TO DATE: \$3,026,000

PRESIDENT'S BUDGET FY2011: \$2,941,000

BUDGET FOR FY2012: M: \$203,000 **O:** \$2,426,000 **T:** \$2,629,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: \$2,238,000 – funding provides for routine operations and maintenance for flood risk management; compliance with Comprehensive Evaluation of Project Datums requirements; and access bridge seismic restraint for dam safety. The funds would improve flood risk management performance by reducing the risk of flailure, flooding, loss of life, environmental damage, and providing for increased efficiency and lower future repair costs.

Rec: \$132,000 – funding provides for routine operations and maintenance for recreation; implementation of law enforcement agreements; perform water management analysis (control and quality); real estate management; and environmental compliance.

Hydro: N/A

ES: \$259,000 – funding provides for routine operations and maintenance for environmental stewardship; monitoring and management of endangered species; specialized habitat management; and to tensure historical, archeological and cultural resources are protected.

OTHER INFORMATION: As a risk based assessment of dam safety, this project is rated Dam Safety Action Classification 3 which will require out-year funding to help reduce the risk at the project with regard to public safety. The downstream stilling basin has not been inspected since the dam was originally built about 67 years ago. Designs, plans and specifications are nearly complete to dewater and inspect the basin.

Division: South Pacific

District: Albuquerque

Project Name: John Martin Reservoir, Colorado

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Los Angeles County Drainage Area, CA

AUTHORIZATION: Flood Control Act of 1936 (as amended 1937, 1941, 1950)

LOCATION AND DESCRIPTION: The Project is located in the County of Los Angeles, California. The Project includes routine operation and maintenance of five Dams and about 34 miles of 517 total miles of flood control channels within Los Angeles County. Baseline hydraulic and hydrologic modeling and surveys are also being conducted to enhance operations and maintenance efforts.

RECOVERY ACT ALLOCATIONS TO DATE: \$8,419,000

PRESIDENT'S BUDGET FOR FY 2011: \$7,035,000

BUDGET FOR FY 2012: M: \$1,262,000 O: \$3,821,000 T: \$5,083,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: \$4,783,000. – funding provides for maintenance of five dams and appurtenant structures and flood control channels, entry permits, encroachment and outgrantee and operation of dams; service facilities and grounds, utilities, water control and reserve operations, hydrographic instrumentation, maintenance of permanent operating equipment, compliance and utilization inspections, and formal periodic inspections for Hansen and Sepulveda Dams and monitoring.

Rec: \$160,000 – funding provides for routine operation of recreation facilities.

Hydro: N/A

ES: \$140,000 – funding provides for in-house and contract costs for cultural resources management plans for 5 flood control basins and 2 rivers (Sepulveda, Hansen, Lopez, Santa Fe, Haines Canyon and Los Angeles and San Gabriel Rivers) by providing cultural staff, ecological surveys, and fencing at the projects. Work consists of cultural resources management plans at Hansen and Sepulveda Basins, cultural reconnaissance at Whittier Narrows basin (former site of original San Gabriel Mission); excavation/report for Hansen Dam historical site, for National Historic Register evaluation, fencing at Haines Canyon to reduce trespassing by unapproved recreationists; and for endangered species surveys in the Los Angeles County Drainage areas.

WS: N/A

OTHER INFORMATION: Due to the Station Wild Fire above Haines Canyon destroying vegetation, heavy debris flows were experienced and some sediment was removed during the first quarter of FY11. The district is closely monitoring this situation, and should future storm events affect the basins capacity, additional funds may be needed.

Division: South Pacific District: Los Angeles Project Name: Los Angeles County Drainage Area, CA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Marina del Rey, CA

AUTHORIZATION: Rivers and Harbors Act of 1954

LOCATION AND DESCRIPTION: The Harbor is located approximately 15 miles southwest of downtown Los Angeles and is the largest man-made harbor in the United States with nearly 4,700 boat slips. The harbor is home to the U.S. Coast Guard Cutter Halibut, the Los Angeles County Sheriff Department, and Los Angeles County Lifeguard Operations (Baywatch). These three agencies are the primary first responders in Santa Monica Bay and the surrounding areas (including LAX airport, three power plants, a sewage treatment plant, and offshore oil tanker moorings). The harbor is used for both recreation and commercial fishing purposes. The harbor is designated as a "critical harbor of refuge" for the region. The project maintenance consists of jetties, entrance channel, main channel, and breakwater.

RECOVERY ACT ALLOCATIONS TO DATE: \$ 0

PRESIDENT'S BUDGET FOR FY 2011: \$2,050,000

BUDGET FOR FY 2012: M: \$3,170,000 O: \$0 T: \$3,170,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$3,170,000 – Funds would be used to perform critical maintenance dredging of contaminated and clean sediments and to provide safe navigation in the most critical areas of the north and south entrance.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Sediments from the South Entrance are normally deemed as unsuitable for ocean or beach disposal due to contamination. In the past, sediments dredged from the South Entrance were placed in a confined aquatic disposal site or in port-fill sites. The harbor also serves as the key rescue support for the Los Angeles International Airport. Without maintenance, the harbor will experience severe difficulties in navigation and the entrance channel may be closed due to a hazard to navigation. At present there is not enough funding available to award and execute a dredging project. Estimates range from \$3.5 million (for a basic dredging project to remove available clean sediments from the entrance) to approximately \$17 million (to remove all clean and contaminated materials from the harbor). This range covers the previously reported dredging cost estimate of \$9 million for a mix of clean and contaminated sediments.

Division: South Pacific

District: Los Angeles

Project Name: Marina del Rey, CA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Martis Creek Lake, NV & CA

AUTHORIZATION: Flood Control Act of 1944

LOCATION AND DESCRIPTION: The project consists of a 113-foot-high earth-fill dam on Martis Creek (a tributary of Truckee River), about 32 miles southwest of Reno, creating a reservoir with a gross storage capacity of about 20,000-acre-feet. The project is located in Nevada and Placer counties in California and Washoe County in Nevada.

RECOVERY ACT ALLOCATIONS TO DATE: \$474,000

PRESIDENT'S BUDGET FOR FY2011: \$1,170,000

BUDGET FOR FY2012: M: \$299,000 O: \$655,000 T: \$954,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2012:

N: N/A

FRM: \$750,000 – Funding provides for routine required dam operations and maintenance. Operations includes: limited execution of gate operation, dam safety and post earth quake inspections, emergency actions, monitoring instrumentation, data collection, Water Management, Real Estate compliance and out-grant inspections. Maintenance includes: limited critical maintenance, repairs to major equipment, embankment, fire suppression, security system, heating, ventilation and air conditioning, vegetation control, and Water Control Data Systems modifications.

Rec: \$196,000 - Funding provides for routine operations and maintenance for recreation; inspection of recreational facilities; environmental compliance; implementation of law enforcement agreements; real estate management; contract administration; water safety outreach and environmental education; partnerships and collaboration with stakeholders; and enforcement of Title 36, CFR, Chapter 111, Part 327, "Rules and Regulations Governing Public Use of Corps of Engineers Water Resources Development Projects".

Hydro: N/A

ES: \$8,000 - Funding provides for routine operations and maintenance for environmental stewardship; monitoring and management of Threatened, Endangered, and Special Status species; monitoring and management of invasive species; conservation, restoration, and management of natural resources; protection of historical, archeological, and cultural resources; as well as support for Geographic Information System and level one inventories, for endangered species as required by regulation.

WS: N/A

OTHER INFORMATION: Project is currently not fully able to provide the benefits for which it was designed and constructed because of seepage problems and seismic concerns. A dam safety investigation is currently underway to determine the appropriate remediation efforts.

Division: South Pacific

District: Sacramento

Project Name: Martis Creek Lake, NV & CA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Merced County Stream Group, CA

AUTHORIZATION: Flood Control Act of 1944

LOCATION AND DESCRIPTION: The project consists of the following flood control improvements:

- 1) Five flood retention dams:
Mariposa, 88-foot-high (15,000-acre-feet), 18 miles east of Merced.
Owens 75-foot-high (3,600-acre-feet), 16 miles east of Merced.
Bear, 92-foot-high (7,700-acre-feet), 16 miles east of Merced.
Burns, 53-foot-high (7,000-acre-feet), 13 miles NE of Merced.
Castle, 40-foot-high (6,400-acre-feet), 6 miles NW of Merced.
- 2) Black Rascal and Owens Diversion Canals; and
- 3) Channel improvements on various streams in the vicinity of Merced.

No recreation facilities are included in the project. The project is located in Mariposa County.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

PRESIDENT'S BUDGET FOR FY2011: \$401,000

BUDGET FOR FY2012: M: \$ 50,000 O: \$349,000 T: \$399,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2012:

N: N/A

FRM: \$399,000 - Funding provides for routine required dam operations and maintenance. Operations includes: limited execution of gate operation, dam safety and post earth quake inspections, emergency actions, monitoring instrumentation, data collection, Water Management, Real Estate compliance and out-grant inspections. Maintenance includes: limited critical maintenance, repairs to major equipment, embankment, fire suppression, security system, heating, ventilation and air conditioning, vegetation control, and Water Control Data System modifications.

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A-

OTHER INFORMATION: None

Division: South Pacific

District: Sacramento

Project Name: Merced County Stream Group, CA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Middle Rio Grande Endangered Species Collaborative Program, New Mexico

AUTHORIZATION: P.L.109-103; 119 Stat. 2256 Section 121 of the Energy and Water Development Appropriations Act, 2006 and as amended by P.L. 110-161 Sec 109 of the Energy and Water Development & Related Agencies Appropriations Act 2008

LOCATION AND DESCRIPTION: This project is a multi-stakeholder partnership to protect and improve the status of endangered species (Rio Grande silvery minnow and southwestern willow flycatcher) while simultaneously protecting existing and future regional water uses. Authority includes the headwaters of the Rio Chama watershed and the Rio Grande from the New Mexico-Colorado state line downstream to the elevation of the spillway crest of the Elephant Butte Reservoir.

RECOVERY ACT ALLOCATIONS TO DATE: \$0
PRESIDENT'S BUDGET FOR FY 2011: \$2,500,000
BUDGET FOR FY 2012: M: \$0 O: \$2,425,000 T: \$2,425,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: \$2,425,000 –The purpose is to fulfill requirements set forth by the 2003 Biological Opinion on the Bureau of Reclamation's (Reclamation) Water and River Maintenance Operations, Army Corps of Engineers' Flood Control Operations, and Non-Federal Actions (2003 Biological Opinion) and the Middle Rio Grande Endangered Species Collaborative Program Long Term Plan by carrying out and funding the necessary planning studies, watershed surveys and assessments, or technical studies at 100 percent Federal expense.

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: This program facilitates Corps compliance under Section 7 of the Endangered Species Act. Identified program goals include alleviating jeopardy to the listed species in the Program area and to develop adaptive management tools to support a sustainable Biological Opinion.

Division: South Pacific

District: Albuquerque

Project Name: Middle Rio Grande Endangered
Species Collaborative Program, New Mexico

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Mojave River Dam, CA

AUTHORIZATION: Flood Control Act of 1960

LOCATION AND DESCRIPTION: The project is located in San Bernardino County, approximately 100 miles East of Los Angeles, California. The project elements being operated and maintained consist of an earth fill dam, saddle dike, outlet works, spillway, service roads, reservoir, and a recreation area.

RECOVERY ACT ALLOCATIONS TO DATE: \$ 0

PRESIDENT'S BUDGET FOR FY 2011: \$522,000

BUDGET FOR FY 2012: M: \$83,000 **O:** \$ 249,000 **T:** \$332,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: \$214,000 - funding provides for maintenance of dam and appurtenant structures, entry permits, encroachment and outgrating and operation of dam; service facility and grounds, utilities, water control and reserve operations, hydrographic instrumentation, compliance and utilization inspections, and formal periodic inspections and monitoring.

Rec: \$ 32,000 - funding provides for routine operations of recreation facilities.

Hydro: N/A

ES: \$86,000 – funding provides for partial contract cost for District aerial photo and Globe Information Service/analysis for Level I inventory, for endangered species as required by regulation and Master Plan preparation. Listed aquatic and avian species are found here.

WS: N/A

OTHER INFORMATION: None.

Division: South Pacific

District: Los Angeles

Project Name: Mojave River Dam, CA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Morro Bay Harbor, CA

AUTHORIZATION: River and Harbor Act of 1945

LOCATION AND DESCRIPTION: The Harbor is located half way between Los Angeles and San Francisco in San Luis Obispo County. The project consists of the Entrance Channel, the Main Channel, the Navy Channel, the Morro Channel, and the Sand Trap.

RECOVERY ACT ALLOCATIONS TO DATE: \$8,598,500

PRESIDENT'S BUDGET FOR FY 2011: \$1,590,000

BUDGET FOR FY 2012: M: \$1,590,000 O: \$0 T: \$1,590,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$1,590,000 – Funding provides for critical annual maintenance dredging to assure safe navigation. These funds would be used to perform critical minimum maintenance dredging in the Entrance Channel.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: The Entrance Channel is critical area for the Harbor. Since this area is just outside of the Breakwater's protection, it has a fast accumulation rate. Dredging in this area is normally performed by the Corps's dredge, Yaquina. The Coast Guard maintains a cutter in the Harbor and there are commercial fishing and tourist operations.

Division: South Pacific

District: Los Angeles

Project Name: Morro Bay Harbor, CA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: New Hogan Lake, CA

AUTHORIZATION: Flood Control Act of 1962

LOCATION AND DESCRIPTION: The project is located on the Calaveras River, about 28 miles NE of Stockton, and comprises a rock-fill dam with an impervious earth core and a maximum height of 200-feet together with four dikes, with a maximum height of 18-feet, and a gated spillway to create a reservoir with a gross storage capacity of 325,000-acre-feet. The project is located in Calaveras County.

RECOVERY ACT ALLOCATION TO DATE: \$1,883,000

PRESIDENT'S BUDGET FOR FY2011: \$2,476,000

BUDGET FOR FY2012: M: \$ 433,000 **O:** \$2,023,000 **T:** \$2,456,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2012:

N: N/A

FRM: \$1,228,000 – Funding provides for routine required dam operations and maintenance. Operations includes: limited execution of gate operation, dam safety and post earth quake inspections, emergency actions, monitoring instrumentation, data collection, Water Management, Real Estate compliance and out-grant inspections. Maintenance includes: limited critical maintenance, repairs to major equipment, embankment, fire suppression, security system, heating, ventilation and air conditioning, vegetation control, and Water Control Data Systems modifications.

Rec: \$1,052,000 - Funding provides for routine operations and maintenance for recreation; inspection of recreational facilities; environmental compliance; implementation of law enforcement agreements; real estate management; contract administration; water safety outreach and environmental education; partnerships and collaboration with stakeholders; and enforcement of Title 36, CFR, Chapter 111, Part 327, "Rules and Regulations Governing Public Use of Corps of Engineers Water Resources Development Projects".

Hydro: N/A

ES: \$176,000 - Funding provides for routine operations and maintenance for environmental stewardship; monitoring and management of Threatened, Endangered, and Special Status species; monitoring and management of invasive species; conservation, restoration, and management of natural resources; protection of historical, archeological, and cultural resources; as well as support for Geographic Information System and level one inventories, for endangered species as required by regulation.

WS: N/A

OTHER INFORMATION: None

Division: South Pacific

District: Sacramento

Project Name: New Hogan Lake, CA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: New Melones Lake (Downstream Channel), CA

AUTHORIZATION: Flood Control Act of 1962

LOCATION AND DESCRIPTION: Project extends along the Stanislaus River from Goodwin Dam to its confluence with the San Joaquin River. The project provides recreationists' access to the Lower Stanislaus River. The project is located in Calaveras, San Joaquin, Stanislaus, and Tuolumne counties.

RECOVERY ACT ALLOCATIONS TO DATE: \$1,617,000

PRESIDENT'S BUDGET FOR FY2011: \$1,929,000

BUDGET FOR FY2012: M: \$339,000 **O:** \$1,558,000 **T:** \$1,897,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2012:

N: N/A

FRM: \$302,000 - Critical funding needed to perform below minimum channel operation and maintenance to prevent failure and maintain integrity of Flood Risk Management; reducing inspections and engineering consultations.

Rec: \$1,221,000 - Funding provides for routine operations and maintenance for recreation; inspection of recreational facilities; environmental compliance; implementation of law enforcement agreements; real estate management; contract administration; water safety outreach and environmental education; partnerships and collaboration with stakeholders; and enforcement of Title 36, CFR, Chapter 111, Part 327, "Rules and Regulations Governing Public Use of Corps of Engineers Water Resources Development Projects".

Hydro: N/A

ES: \$374,000 - Funding provides for routine operations and maintenance for environmental stewardship; monitoring and management of Threatened, Endangered, and Special Status species; monitoring and management of invasive species; conservation, restoration, and management of natural resources; protection of historical, archeological, and cultural resources; as well as support for Geographic Information System and level one inventories, for endangered species as required by regulation.

WS: N/A

OTHER INFORMATION:

Division: South Pacific

District: Sacramento

Project Name: New Melones Lake
(Downstream Channel), CA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Oakland Harbor, CA

AUTHORIZATION: R & H Act of 1910, Pub. L. No. 60-317, 35 Stat. 815,823 (1909); R & H Act of 1917, Pub. L. No. 64-108, 39 Stat. 391,404 (1916), R & H Act of 1922, Pub. L. 67-362, 42 Stat. 1038, 1040 (1922); R & H Act of 1928, Pub. L. No. 69-560, 44 Stat. 1038, 1040 (1922); R & H Act of 1930 Pub. L. No. 46 Stat. 918, 931 (1930); R & H Act of 1945, Pub. L. No. 79-14, 59 Stat. 10, 13 (1945); R & H Act of 1962, Pub. L. No. 87-874 § 101, 76 Stat. 1173, 1176 (1962); WRDA of 1986, Pub. L. No. 99-662 § 202 (a), 100 Stat. 4082 (1986); WRDA of 1999, Pub. L. No. 106-53 § 101 (a) (7), 113 Stat. 269,275 (1999).

LOCATION AND DESCRIPTION: Oakland Harbor is located in Alameda County, California. The project provides for inspection and maintenance of parallel rubble-mound jetties forming the entrance to Oakland Inner Harbor, and annual maintenance dredging of the Oakland Inner and Outer Harbors to -50 feet Mean Lower Low Water. It also provides for reimbursement to Alameda County for operations and maintenance of the Fruitvale Avenue Railroad Bridge.

RECOVERY ACT ALLOCATIONS TO DATE: \$6,250,000
PRESIDENT'S BUDGET FOR FY 2011: \$7,500,000
BUDGET FOR FY2012: M: \$8,755,000 O: \$ 0 T: \$8,755,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$8,755,000 - Funding provides for annual contract maintenance dredging of the Inner and Outer Harbor Channels. The Port of Oakland is the major container facility in San Francisco Bay and is a National Strategic Port.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Funds will be used for maintenance dredging of the Inner and Outer Harbors; management of the Oakland Inner Harbor Tidal Canal; operation and maintenance of the railroad bridge; environmental clean-up of the Nelson Marine site; and monitoring at the San Francisco Deep Ocean Disposal Site and Sonoma Baylands. Placement of dredged material from Oakland has contributed substantially to the Hamilton Wetland Restoration Project.

Division: South Pacific

District: San Francisco

Project Name: Oakland Harbor, CA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Oceanside Harbor, CA

AUTHORIZATION: Rivers and Harbors Act of 1982, WRDA 1990

LOCATION AND DESCRIPTION: Northern San Diego County, CA. The project provides for maintenance of the general navigation features of the Del Mar Channel, constructed by the US Navy, and of Oceanside Harbor, constructed by local interest. The features consist of five channels, one jetty and a turning basin.

RECOVERY ACT ALLOCATIONS TO DATE: \$ 0
PRESIDENT'S BUDGET FOR FY 2011: \$1,520,000
BUDGET FOR FY 2012: M: \$1,520,000 O: \$0 T: \$1,520,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$1,520,000 – Funding will be used to perform critical minimum level maintenance dredging of the Approach Channel and the Entrance Channel.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Oceanside Harbor requires annual dredging and funds will allow dredging of the Approach Channel. Oceanside Harbor is a "critical harbor of refuge" along the Southern California coast and without the dredging of the Approach Channel, the Harbor will develop hazardous shoals and may close. The nearest harbors of refuge are Dana Point and Mission Bay which are 25 and 32 miles away respectively. However, neither of these are classified as "critical harbors of refuge." Additionally, Marine Corps Base Camp Pendleton operates a basin within Oceanside Harbor that is used for training activities and Navy operations.

Division: South Pacific

District: Los Angeles

Project Name: Oceanside Harbor, CA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Painted Rock Dam, AZ

AUTHORIZATION: Flood Control Act of 1950

LOCATION AND DESCRIPTION: The Project is located in approximately 20 miles Northwest of Gila Bend, Arizona and 120 miles Southwest of Phoenix, Arizona. The project elements being operated and maintained consist of an earth fill Dam, Saddle Dike, Outlet works, Spillway, Pilot Channel, reservoir, and a recreation area.

RECOVERY ACT ALLOCATIONS TO DATE: \$ 0

PRESIDENT'S BUDGET FOR FY 2011: \$1,522,000

BUDGET FOR FY 2012: M: \$438,000 O: \$869,000 T: \$1,307,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: \$1,282,000 – funding provides for maintenance of dam and appurtenant structures, entry permits, encroachment and outgranting and operation of dam; service facility and grounds, utilities, water control and reserve operations, hydrographic instrumentation, compliance & utilization inspections, and formal periodic inspections and monitoring.

Rec: N/A

Hydro: N/A

ES: \$25,000 – funding provides for salary and travel of Cultural staff for field reconnaissance and report on cultural resources.

WS: N/A

OTHER INFORMATION: None.

Division: South Pacific

District: Los Angeles

Project Name: Painted Rock Dam, AZ

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Pine and Mathews Canyons Lakes, NV

AUTHORIZATION: Flood Control Act of 1950

LOCATION AND DESCRIPTION: The Dams located approximately 100 miles northeast of Las Vegas, Nevada. The project consists of routine operation and maintenance of Pine Canyon Dam, Mathews Canyon Dam and appurtenances. The structures are not gated and require little maintenance. Initially placed in operation December of 1957, the project structures are in good condition.

RECOVERY ACT ALLOCATIONS TO DATE: \$ 0

PRESIDENT'S BUDGET FOR FY2011: \$557,000

BUDGET FOR FY 2012: M: \$111,000 O: \$193,000 T: \$304,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: \$270,000 – funding provides for maintenance of dam and appurtenant structures, entry permits, encroachment and outgrating and operation of dam; service facility and grounds, utilities, water control and reserve operations, hydrographic instrumentation, compliance & utilization inspections, and formal periodic inspections and monitoring.

Rec: N/A

Hydro: N/A

ES: \$34,000 – funding provides for fencing and signage, at key areas, to be erected to reduce trespassing in an area with sensitive cultural and other natural resources; travel and in-house labor to update cultural resources management/compliance and site stewardship; area of illegal grazing and also unapproved/informal recreation, in area with rich cultural resources which are at risk and whose status has not been recently reviewed.

WS: N/A

OTHER INFORMATION: None.

Division: South Pacific District: Los Angeles Project Name: Pine and Mathews Canyons Lakes, NV

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Pine Flat Lake, CA

AUTHORIZATION: Flood Control Act of 1944

LOCATION AND DESCRIPTION: Pine Flat Dam located on the Kings River, about 25 miles east of the city of Fresno, is a straight, gravity-type concrete structure, 429-feet-high, with a gate-controlled spillway in the central section, and creates a reservoir of 1,000,000-acre-feet. The project is located in Fresno County.

RECOVERY ACT ALLOCATIONS TO DATE: \$763,000

PRESIDENT'S BUDGET FOR FY2011: \$3,378,000

BUDGET FOR FY2012: M: \$718,000 **O:** \$2,573,000 **T:** \$3,291,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2012:

N: N/A

FRM: \$2,250,000 – Funding provides for routine required dam operations and maintenance. Operations includes execution of gate operation & service, dam safety and post earth quake inspections, emergency actions, monitoring instrumentation, data collection, Water Management, Real Estate compliance and out-grant inspections. Maintenance includes limited critical maintenance, repairs to major equipment, embankment, fire suppression, security system, heating, ventilation and air conditioning, vegetation control, and Water Control Data System modifications.

Rec: \$1,007,000 - Funding provides for routine operations and maintenance for recreation; inspection of recreational facilities; environmental compliance; implementation of law enforcement agreements; real estate management; contract administration; water safety outreach and environmental education; partnerships and collaboration with stakeholders; and enforcement of Title 36, CFR, Chapter 111, Part 327, "Rules and Regulations Governing Public Use of Corps of Engineers Water Resources Development Projects".

Hydro: N/A

ES: \$34,000 - Funding provides for routine operations and maintenance for environmental stewardship; monitoring and management of Threatened, Endangered, and Special Status species; monitoring and management of invasive species; conservation, restoration, and management of natural resources; protection of historical, archeological, and cultural resources; as well as support for Geographic Information System and level one inventories, for endangered species as required by regulation.

WS: N/A

OTHER INFORMATION: None

Division: South Pacific

District: Sacramento

Project Name: Pine Flat Lake, CA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Richmond Harbor, CA

AUTHORIZATION: Rivers and Harbors Act of 1917, Pub. L. No. 64-108; 39 Stat. 391 (1916); Rivers and Harbors Act of 1930, Pub. L. 71-520; 46 Stat. 520 (1930); Rivers and Harbors Act of 1935, Pub. L. No.74-409; 49 Stat. 1028 (1935); Rivers and Harbors Act of 1938, Pub. L. No. 75-685; 52 Stat. 802 (1938); Rivers and Harbors Act of 1945, Pub. L. No. 79-14; 59 Stat. 10 (1945); Rivers and Harbors Act of 1954, Pub.L. No. 83-870; 68 Stat. 1248 (1954).

LOCATION AND DESCRIPTION: Richmond Harbor is located in Contra Costa County, California. The project includes the Outer and Inner Harbor Channels as well as a training wall.

RECOVERY ACT ALLOCATIONS TO DATE: \$0
PRESIDENT'S BUDGET FOR FY2011: \$8,375,000
BUDGET FOR FY2012: M: \$8,146,000 O: \$ 0 T: \$8,146,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$8,146,000 - Funding provides for annual maintenance dredging of the Inner Harbor and the Outer Harbor. The Port of Richmond is the major tanker terminal in San Francisco Bay.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: The Port of Richmond accounts for over 30% of all commercial tonnage in San Francisco Bay.

Division: South Pacific

District: San Francisco

Project Name: Richmond Harbor, CA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Sacramento River & Tributaries (Debris Control), CA

AUTHORIZATION: Rivers and Harbors Act of 1935

LOCATION AND DESCRIPTION: Englebright & North Fork Dams are both thin wall concrete arch dams constructed by California Debris Commission to contain mining debris. Englebright is about 20 miles east of Marysville on Yuba River, and North Fork is on the North Fork of the American River about 5 miles NE of Auburn. The projects are located in the counties of Nevada and Yuba.

RECOVERY ACT ALLOCATIONS TO DATE: \$475,000

PRESIDENT'S BUDGET FOR FY2011: \$1,475,000

BUDGET FOR FY2012: M: \$48,000 O: \$1,251,000 T: \$1,299,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2012:

N: \$407,000 – Funding provides for operations of dam and maintenance of all appurtenant structures including monitoring & analysis of instrumentation and data collection, and Real Estate requirements; includes federal, state and local coordination.

FRM: N/A

Rec: \$747,000 - Funding provides for routine operations and maintenance for recreation; inspection of recreational facilities; environmental compliance; implementation of law enforcement agreements; real estate management; contract administration; water safety outreach and environmental education; partnerships and collaboration with stakeholders; and enforcement of Title 36, CFR, Chapter 111, Part 327, "Rules and Regulations Governing Public Use of Corps of Engineers Water Resources Development Projects".

Hydro: N/A

ES: \$145,000 - Funding provides for routine operations and maintenance for environmental stewardship; monitoring and management of Threatened, Endangered, and Special Status species; monitoring and management of invasive species; conservation, restoration, and management of natural resources; protection of historical, archeological, and cultural resources; as well as support for Geographic Information System and level one inventories for endangered species as required by regulation. Funding will also support gravel and woody debris augmentation as a result of Endangered Species Act Section 7 consultation with National Marine Fisheries Service and in accordance with ESA final biological opinion. This will be a permanent requirement until the 3 species are de-listed.

OTHER INFORMATION: There is an ongoing litigation brought by the South Yuba River Citizens League (SYRCL) regarding project impacts to ESA listed species (salmon, steelhead and green sturgeon). The latest BO issued in 2007 contained extensive requirements to mitigate for fisheries impacts. Funding will be needed to implement these requirements as well as any additional requirements imposed as a result of a new Biological Opinion to be issued in 2012.

Division: South Pacific

District: Sacramento

Project Name: Sacramento River & Tributaries
(Debris Control), CA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Sacramento River Shallow Draft Channel, CA

AUTHORIZATION: Rivers and Harbor Acts, 1899, 1912, 1927, 1935

LOCATION AND DESCRIPTION: The project consists of a 10-foot channel, from Suisun Bay to Sacramento, a distance of 60 miles; 6-foot channel between Sacramento and Colusa, 85 miles; 5-foot channel between Colusa and Chico Landing, 50 miles; and such depth as practicable between Chico Landing and Red Bluff, a distance of 53 miles. The reach from Colusa to Red Bluff was deauthorized by the WRDA 1986. Project is located in the counties of Colusa, Glenn, Placer, Solano, Tehama, and Yolo.

RECOVERY ACT ALLOCATIONS TO DATE: \$8,000

PRESIDENT'S BUDGET FOR FY2011: \$161,000

BUDGET FOR FY2012: M: 0 O: \$125,000 T: \$125,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2012:

N: \$125,000 – Funding is required for inspections and maintenance of wing dams to ensure snags and other navigation hazards are properly cleared. Maintenance also includes replacement of the wing dam buoys. The Sacramento River is a heavily used waterway by recreational vessels. Failure to remove snags and replace wing dam buoys would result in navigation safety hazards which may result in loss of property or life, if not maintained.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None

Division: South Pacific District: Sacramento Project Name: Sacramento River (Shallow Draft), CA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: San Diego Harbor, CA

AUTHORIZATION: River and Harbors Act of 1852

LOCATION AND DESCRIPTION: San Diego is about 109 miles southeast of Long Beach. The project provides for maintenance of the federal channel and associated navigational structures located in San Diego Harbor.

RECOVERY ACT ALLOCATIONS TO DATE: \$ 0

PRESIDENT'S BUDGET FOR FY 2011: T: \$ 0

BUDGET FOR FY 2012: M: \$3,800,000 O: \$0 T: \$3,800,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$3,800,000 – Requested funds would be used to perform maintenance dredging of the federal channels (\$3,800,000). Maintenance dredging is needed to remove shoals that have formed in the channels since they were last dredged.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Recent surveys indicate sediment shoals are developing throughout the harbor, especially in the entrance and approach channels. These shoals can be a hazard to navigation if they are not removed.

San Diego Harbor is the home of the U.S. Navy Third Fleet, U.S. Coast Guard - Sector San Diego headquarters and the Port of San Diego. The harbor is also the homeport for three Nimitz Class aircraft carriers. Without maintenance dredging, deep draft vessels may be subject to grounding.

Division: South Pacific District: Los Angeles

Project Name: San Diego Harbor, CA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: San Francisco Bay Delta Model, CA

AUTHORIZATION: Water Resources Development Act of 1974, Pub. L. No. 93-251, § 103, 88 Stat. 12, 16.

LOCATION AND DESCRIPTION: The San Francisco Bay-Delta Model Regional Visitor Center is located in Sausalito, California. The facility is a hydraulic to scale three dimensional model covering one and one-half acres.

RECOVERY ACT ALLOCATIONS TO DATE: \$14,416,000

PRESIDENT'S BUDGET FOR FY2011: \$1,087,000

BUDGET FOR FY2012: M: \$5,000 **O:** \$981,000 **T:** \$986,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: N/A

Rec: \$986,000 - Funding provides annual operation and maintenance of the bay-delta model. The facility currently serves over 150,000 visitors annually, 60% of them school children, fulfilling Corps Strategic Communication goals, providing public and curriculum-based school tours, special events, workshops, and seminars on the Corps' modern missions within the context of the environmental, cultural, and historical issues of the Bay Area.

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None

Division: South Pacific District: San Francisco Project Name: San Francisco Bay Delta Model, CA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: San Francisco Harbor and Bay (Drift Removal), CA

AUTHORIZATION: River and Harbor Act of 1945, Pub. L. No. 79-14, § 3, 59 Stat. 10, 23

LOCATION AND DESCRIPTION: Drift Removal is the removal of floating hazards to navigation using Government-owned vessels. The project is based at the San Francisco District Operations Base at Richardson Bay in Sausalito, California. The drift removal fleet's areas of operation are San Francisco Bay (central, north and south), San Pablo Bay, Oakland Estuary, Petaluma River, Napa River, Mare Island Strait, Carquinez Strait, Suisun Bay and Redwood City.

RECOVERY ACT ALLOCATIONS TO DATE: \$42,000

PRESIDENT'S BUDGET FOR FY2011: \$3,090,000

BUDGET FOR FY2012: M: \$1,979,000 O: \$ 0 T: \$1,979,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$1,979,000 - Funding for the removal of floating hazards in navigation channels using Government-owned vessels. The drift removal operation affects the navigational safety concerns for all Bay Area Federal channels used by over 1,000 small ports and several major ports including the ports of Oakland, Richmond, Sacramento, and Stockton.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None

Division: South Pacific

District: San Francisco

Project Name: San Francisco Harbor and Bay
(Drift Removal), CA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: San Francisco Harbor, CA

AUTHORIZATION: River and Harbor Act 1927, Pub. L. No. 69-560, 44 Stat. 1010, 1014; River and Harbor Act of 1930, Pub. L. No. 71-520, 46 Stat. 918, 934; River and Harbor Act of 1935, Pub. L. No. 74-409, 49 Stat. 1028, 1037

LOCATION AND DESCRIPTION: The project is located approximately 5 miles west of the Golden Gate Bridge in the waters leading into San Francisco Bay. The San Francisco Main Ship (Bar) Channel is the gateway to San Francisco Bay.

RECOVERY ACT ALLOCATIONS TO DATE: \$0
PRESIDENT'S BUDGET FOR FY2011: \$2,776,000
BUDGET FOR FY2012: M: \$2,548,000 O: \$ 0 T: \$2,548,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$2,548,000 - Funding provides for annual maintenance dredging of the Main Ship (Bar) Channel by Government Dredge ESSAYONS. All commercial deep draft and national defense shipping to San Francisco Bay, Sacramento and Stockton must traverse through this project.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Over 66 million tons of waterborne commerce traversed the San Francisco Bar entrance channel in the latest year of record. With the completion of the 50 foot channel at the Port of Oakland, the continued maintenance of the 55 foot entrance channel is essential.

Division: South Pacific

District: San Francisco

Project Name: San Francisco Harbor, CA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: San Joaquin River, CA

AUTHORIZATION: Rivers and Harbors Act 1876, 1927 & 1950

LOCATION AND DESCRIPTION: The Stockton Deep Water Ship Channel extends 41 miles from the Port of Stockton to Antioch, CA. The Sacramento District is responsible for maintaining both the channel to 35-feet and existing bank protection. The project is located in the counties of Contra Costa, Sacramento and San Joaquin.

RECOVERY ACT ALLOCATIONS TO DATE: \$0
PRESIDENT'S BUDGET FOR FY2011: \$3,603,000
BUDGET FOR FY2012: M: \$ 3,721,000 O: \$25,000 T: \$3,746,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2012:

N: \$3,746,000 – Maintain the ship channel to its authorized depth of 35-feet. If adequate funding is not provided, only a portion of the channel would be at authorized depth resulting in navigation safety hazards which may result in ships grounding. Draft restrictions would be imposed resulting in a loss of revenue to the Port of Stockton. On average 1 cargo vessel passes through the channel every other day transporting millions of tons of waterborne cargo to and from the Port of Stockton taking more than 1 million trucks off area roads annually. Funding also includes Real Estate compliance inspections and out grant oversight.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: The Port of Stockton is the largest inland port and the fourth busiest in California. The Port is a vital link to the agriculture industry of the California's Central Valley, providing more than 90% of the fertilizer used by the region's growers and more than 50% of California's bagged rice to Japan. Strict water quality standards set by the State have increased requirements for sampling and handling of dredge material. The presence of endangered species has resulted in shortened dredging windows that have created problems in maintaining channels to authorized depths each year. Tighter air quality control requirements have necessitated upgrades in dredging equipment that have increased contract costs. A lack of funds for rock work has allowed the banks to degrade resulting in increased sedimentation in the channel.

Division: South Pacific

District: Sacramento

Project Name: San Joaquin River, CA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: San Pablo Bay Mare Island Strait, CA

AUTHORIZATION: River & Harbor Act of 1902, 1911, 1917, 1938, 1945, 1965, 1968 Sec 117

LOCATION AND DESCRIPTION: The San Pablo Bay & Mare Island Strait project is located in Solano County, California and consists of the Mare Island Strait and Pinole Shoal Channels.

RECOVERY ACT ALLOCATION TO DATE: \$5,817,000

PRESIDENT'S BUDGET FOR FY2011: \$2,750,000

BUDGET FOR FY2012: M: \$3,470,000 **O:** \$ 0 **T:** \$3,470,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$3,470,000 - Funding provides for annual maintenance dredging of the Pinole Shoal Channel. The channel provides access to refineries and the ports of Sacramento and Stockton.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Pinole Shoal Channel provides deep water access for commercial traffic of foreign and domestic deep draft merchant and oil tanker vessels to the Suisun Bay Channel and the Ports of Sacramento and Stockton.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Santa Ana River Basin, CA

AUTHORIZATION: Flood Control Act of 1936 (as amended 1938)

LOCATION AND DESCRIPTION: The project is located in the counties of Riverside, Los Angeles and Orange, California. The project includes routine operation and maintenance of five dams with four recreational areas and about 15.7 miles of flood control channels along San Antonio & Chino Creek within the Santa Ana River Basin.

RECOVERY ACT ALLOCATIONS TO DATE: \$ 4,725,000

PRESIDENT'S BUDGET FOR FY 2011: \$4,883,000

BUDGET FOR FY 2012: M: \$813,000 O: \$2,717,000 T: \$3,530,000.

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: \$3,227,000 – funding provides for maintenance and operations of San Antonio, Prado, Carbon Canyon, Brea, and Fullerton Dams and appurtenant structures, and San Antonio & Chino Creek Channels, entry permits, encroachment and outgranting, completion of scheduled Periodic Inspections of Prado and San Antonio Dams, service facilities and grounds, utilities, maintenance of permanent operating equipment, reservoir operations, hydrographic instrument maintenance, and compliance and utilization inspections. Signage and fencing at specific locations to protect acreage from dumping and to provide protection to sensitive habitats.

Rec: \$175,000 – funding provides for routine operations of recreation facilities.

Hydro: N/A

ES: \$128,000 – funding provides for signage and fencing at specified locations to protect acreage from dumping and to provide protection to sensitive habitats, cultural review due to local development and requests for restoration on Corps land particularly in Prado Basin; herbicide for Arundo removal, Section 7 consultations and coordination with local lessees as to proper operation and maintenance in sensitive areas. Contains Critical Habitat for several bird species at Prado Basin: Carbon Canyon has one listed species.

WS: N/A

OTHER INFORMATION: None.

Division: South Pacific

District: Los Angeles

Project Name: Santa Ana River Basin, CA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Santa Barbara Harbor, CA

AUTHORIZATION: Rivers and Harbors Act of 1935, 1945 (amended 1976)

LOCATION AND DESCRIPTION: Located in Santa Barbara, CA, the project consists of bi-annual maintenance dredging of the Entrance Channel.

RECOVERY ACT ALLOCATIONS TO DATE: \$ 0

PRESIDENT'S BUDGET FOR FY 2011: \$2,040,000

BUDGET FOR FY 2012: M: \$2,040,000 O: \$0 T: \$2,040,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$2,040,000 – Funding provides for critical bi-annual maintenance dredging to assure safe navigation of the Entrance Channel and the Navy channel. These funds would provide for critical maintenance dredging.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Frequent and rapid shoaling of the Entrance Channel is a major problem. Emergency oil spill containment vessels and the US Coast Guard are stationed at Santa Barbara Harbor.

Division: South Pacific

District: Los Angeles

Project Name: Santa Barbara Harbor, CA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Santa Rosa Dam & Lake, New Mexico

AUTHORIZATION: Flood Control Act of 1954 (P.L. 83-780)

LOCATION AND DESCRIPTION: Santa Rosa Dam & Lake is located on the Pecos River at the river mile 766.4 in Guadalupe County approximately 7 miles north of Santa Rosa and 120 mile from Albuquerque, New Mexico. Santa Rosa Dam & Lake drainage is 2,434 square miles. The dam is a rolled earth filled structure with a maximum height above streambed of 212 ft. Storage capacity at the spillway crest is 438,364 acre-feet which includes 82,000 acre-feet for sediment reserve, 200,000 acre-feet for irrigation and 167,000 acre-feet for flood control storage. The dam crest length is 1,950 ft with a top width of 36 ft. The outlet works consists of a 10 ft diameter circular concrete tunnel controlled by two sets of 5x9 ft hydraulic slide gates, intake structure, gate chamber, and flip bucket energy dissipater. The uncontrolled spillway is cut in rock. There are four recreation areas consisting of 509 acres. Three recreation areas are operated by the New Mexico Park and Recreation Division. Project has been operational since 1980.

RECOVERY ACT ALLOCATIONS TO DATE: \$116,000

PRESIDENT'S BUDGET FOR FY2011: \$1,220,000

BUDGET FOR FY2012: M: \$126,000 **O:** \$1,688,000 **T:** \$1,814,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: \$1,641,000 – funding provides for routine operations and maintenance for flood risk management; compliance with Comprehensive Evaluation of Project Datums requirements; and access bridge seismic restraint for dam safety. These funds would improve flood risk management performance by reducing the risk of failure, flooding, loss of life, environmental damage, and providing for increased efficiency and lower future repair costs.

Rec: \$96,000 – funding provides for routine operations and maintenance for recreation; implementation of law enforcement agreements; perform water management analysis (control and quality); real estate management; and environmental compliance.

Hydro: N/A

ES: \$77,000 – funding provides for routine operations and maintenance of environmental stewardship; monitoring and management of endangered species; specialized habitat management; and to insure historical, archeological and cultural resources are protected.

WS: N/A

OTHER INFORMATION: As a risk based assessment of dam safety, this project is rated a Dam Safety Action Classification 2 which will require out-year funding to help reduce the risk at the project with regard to public safety.

Division: South Pacific District: Albuquerque Project Name: Santa Rosa Dam & Lake, New Mexico

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Success Lake, CA

AUTHORIZATION: Flood Control Act of 1944

LOCATION AND DESCRIPTION: The project is located on the Tule River, about 6 miles east of Porterville, and comprises an earth-fill dam with a maximum height of 142-feet with an ungated saddle spillway, and an auxiliary earth-fill dam or dike about 40-feet-high, creating a reservoir gross storage capacity of 85,000-acre-feet. This project is located in Tulare County.

RECOVERY ACT ALLOCATIONS TO DATE: \$2,991,000

PRESIDENT'S BUDGET FOR FY2011: \$2,529,000

BUDGET FOR FY2012: M: \$265,000 **O:** \$2,299,000 **T:** \$2,564,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2012:

N: N/A

FRM: \$1,635,000 - Funding provides for routine required dam operations and maintenance. Operations includes: limited execution of gate operation, dam safety and post earth quake inspections, emergency actions, monitoring instrumentation, data collection, Water Management, Real Estate compliance and out-grant inspections. Funding also includes initiation of several interim risk reduction measures. Maintenance includes: limited critical maintenance, repairs to major equipment, embankment, fire suppression, security system, heating, ventilation and air conditioning, vegetation control, and Water Control Data Systems modifications.

Rec: \$865,000 - Funding provides for routine operations and maintenance for recreation; inspection of recreational facilities; environmental compliance; implementation of law enforcement agreements; real estate management; contract administration; water safety outreach and environmental education; partnerships and collaboration with stakeholders; and enforcement of Title 36, CFR, Chapter 111, Part 327, "Rules and Regulations Governing Public Use of Corps of Engineers Water Resources Development Projects".

Hydro: N/A

ES: \$64,000 - Funding provides for routine operations and maintenance for environmental stewardship; monitoring and management of Threatened, Endangered, and Special Status species; monitoring and management of invasive species; conservation, restoration, and management of natural resources; protection of historical, archeological, and cultural resources; as well as support for Geographic Information System and level one inventories, for endangered species as required by regulation.

WS: N/A

OTHER INFORMATION: None

Division: South Pacific

District: Sacramento

Project Name: Success Lake, CA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Suisun Bay Channel, CA

AUTHORIZATION: River & Harbor Act of 1927, 1930, 1935, 1960

LOCATION AND DESCRIPTION: The Suisun Bay Channel is 30 miles northeast of San Francisco, California. Project consists of the Main Channel and New York Slough.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

PRESIDENT'S BUDGET FOR FY2011: \$2,980,000

BUDGET FOR FY2012: M: \$2,770,000 O: \$0 T: \$2,770,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$2,770,000 - Funding provides for annual maintenance dredging of the Main Channel. All commercial deep draft and national defense shipping to Sacramento and Stockton must traverse through this project.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Provides access to Ports of Sacramento, Stockton, and Concord Naval Weapons Station, which is important for national security.

Division: South Pacific

District: San Francisco

Project Name: Suisun Bay Channel, CA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Terminus Dam (Lake Kaweah), CA

AUTHORIZATION: Flood Control Act of 1944

LOCATION AND DESCRIPTION: The project is located on the Kaweah River about 20 miles east of Visalia, and comprises an earth fill dam with a height of 200-feet, with an auxiliary earth fill dam 130-feet-high and fuse gates adjacent to the left abutment of the dam, creating a reservoir with a storage capacity of 185,630-acre-feet. The project is located in Tulare County.

RECOVERY ACT ALLOCATIONS TO DATE: \$2,092,000

PRESIDENT'S BUDGET FOR FY2011: \$2,133,000

BUDGET FOR FY2011: M: \$293,000 **O:** \$2,053,000 **T:** \$2,346,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2012:

N: N/A

FRM: \$1,469,000 - Funding provides for routine required dam operations and maintenance. Operations includes: limited execution of gate operation, dam safety and post earth quake inspections, emergency actions, monitoring instrumentation, data collection, Water Management, Real Estate compliance and out-grant inspections. Funding also includes initiation of several interim risk reduction measures. Maintenance includes: limited critical maintenance, repairs to major equipment, embankment, fire suppression, security system, heating, ventilation and air conditioning, vegetation control, and Water Control Data Systems modifications.

Rec: \$825,000 - Funding provides for routine operations and maintenance for recreation; inspection of recreational facilities; environmental compliance; implementation of law enforcement agreements; real estate management; contract administration; water safety outreach and environmental education; partnerships and collaboration with stakeholders; and enforcement of Title 36, CFR, Chapter 111, Part 327, "Rules and Regulations Governing Public Use of Corps of Engineers Water Resources Development Projects".

Hydro: NA

ES: \$52,000 - Funding provides for routine operations and maintenance for environmental stewardship; monitoring and management of Threatened, Endangered, and Special Status species; monitoring and management of invasive species; conservation, restoration, and management of natural resources; protection of historical, archeological, and cultural resources; as well as support for Geographic Information System and level one inventories, for endangered species as required by regulation.

WS: N/A

OTHER INFORMATION: None

Division: South Pacific

District: Sacramento

Project Name: Terminus Dam (Lake Kaweah), CA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Trinidad Lake, Colorado

AUTHORIZATION: Flood Control Act of 1958 (P.L. 85-500)

LOCATION AND DESCRIPTION: Trinidad Dam drainage area is 671 square miles, a rolled earth filled structure 6,610 feet long with a crest width of 24 ft. and maximum height of 200 feet above the streambed. The reservoir has two uncontrolled spillways with a 10 ft dia. Gated control conduit with a discharge capacity of 5,700 cubic-feet-per-seconds. The reservoir storage capacity is 123,224 acre feet which include 35,045 acre feet for sediment, a 20,000 acre feet for irrigation, and 17,179 acre feet for recreation. There is a service spillway and two emergency spillways. The spillways are not gated. There are 4 recreation areas consisting of 389 acres. The state of Colorado operates and maintains the recreations areas. Project has been operational since 1977.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

PRESIDENT'S BUDGET FOR FY 2011: \$1,243,000

BUDGET FOR FY 2012: M: \$216,000 O: \$1,485,000 T: \$1,701,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: \$1,564,000 – funding provides for routine operations and maintenance for flood risk management; compliance with Comprehensive Evaluation of Project Datums requirements; and access bridge seismic restraint for dam safety. These funds would improve flood risk management performance by reducing the risk of failure, flooding, loss of life, environmental damage, and providing for increased efficiency and lower future repair costs.

Rec: \$88,000 - funding provides for routine operations and maintenance for recreation; implementation of law enforcement agreements; perform water management analysis (control and quality); real estate management; and environmental compliance.

Hydro: N/A

ES: \$49,000 – funding provides for routine operations and maintenance for environmental stewardship; monitoring and management of endangered species; specialized habitat management; and to ensure historical, archeological and cultural resources are protected.

WS: N/A

OTHER INFORMATION: As a risk based assessment of dam safety, this project is rated a Dam Safety Action Classification 2 which will require out-year funding to help reduce the risk at the project with regard to public safety.

Division: South Pacific

District: Albuquerque

Project Name: Trinidad Lake, Colorado

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Two Rivers Dam, New Mexico

AUTHORIZATION: Flood Control Act of 1954 (P.L. 83.780)

LOCATION AND DESCRIPTION: Two Rivers Dam is located in Chavez County, New Mexico, 14 miles southwest of the city of Roswell and 2300 miles from Albuquerque, New Mexico. Two Rivers Dam drainage area is 1,027 square miles. The project consists of two dams, one on the Rio Hondo and the other on the Rocky Arroyo, both tributaries of the Pecos River. Diamond "A" Dam on the Rio Hondo and Rocky Dam on the Rocky Arroyo are both earth fill. Diamond "A" is 4,885 feet-long and 98 feet-high with a gated outlet. Rocky Dam is 2,940 feet-long and 118 feet-high with an uncontrolled outlet. Capacity at Two Rivers Reservoirs at the spillway crest is 163,775 acre-feet of which 18,000 acre feet are provided for sediment reserve. Recreation facilities include picnic shelters and an overlook structure. Project has been operational since 1963.

RECOVERY ACT ALLOCATIONS TO DATE: \$683,000

PRESIDENT'S BUDGET FOR FY2011: \$601,000

BUDGET FOR FY2012: M: \$23,000 O: \$1,030,000 T: \$1,053,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: \$992,000 – funding provides for routine operations and maintenance for flood risk management; compliance with Comprehensive Evaluation of Project Datums requirements; and access bridge seismic restraint for dam safety. These funds would improve flood risk management performance by reducing the risk of failure, flooding, loss of life, environmental damage, and providing for increase efficiency and lower future repair costs.

Rec: \$46,000 – funding provides for routine operations and maintenance for recreation; implementation of law enforcement agreements; perform water management analysis (control and quality); real estate management; and environmental compliance.

Hydro: N/A

ES: \$15,000 – funding provides for routine operations and maintenance of environmental stewardship; monitoring and management of endangered species; specialized habitat management; and to insure historical, archeological and cultural resources are protected.

WS: N/A

OTHER INFORMATION: There is an on-going issue with the City of Roswell to have them recover and maintain sufficient floodwater evacuation enabling channel capacity on the Rio Hondo and Rocky Arroyo below Two Rivers Dams. Despite their 1960 Resolution committing them to obtain maintenance easements, they never have and it has seriously compromised protection from major floods. The main obstacle has been refusal of landowners to provide easements, coupled with very limited motivation by Roswell to pursue them and some skepticism on the need.

Division: South Pacific

District: Albuquerque

Project Name: Two Rivers Dam, New Mexico

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Upper Rio Grande Water Operations Model (URGWOM), NM

AUTHORIZATION: Flood Control Act of 1944, Sec 7 (P.L. 78-534)

LOCATION AND DESCRIPTION: Rio Grande Watershed, Colorado, New Mexico, and Texas. The Upper Rio Grande Water Operations Model assists water managers in flood control operations, water accounting, and evaluation of water operation alternatives. Six Federal agencies entered into a Memorandum of Understand in 1996 and again in 2008 to develop a unified water operations/planning model(s) to coordinate model development activities with other Rio Grande Basin interests. The operations and planning models perform multi-contractor accounting and forecasting to simulate daily storage and delivery operations. URGWOM is currently being used to evaluate water management alternatives for a Biological Assessment and Opinion under Section 7 of the Environmental Species Act. Efficient and flexible water management is crucial as agencies and stakeholders strive to meet competing demands for water, including endangered species needs.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

PRESIDENT'S BUDGET FOR FY 2011: \$1,000,000

BUDGET FOR FY 2012: M: \$0 **O:** \$1,312,000 **T:** \$1,312,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: \$1,312,000 – funding provides for assistance in planning, forecasting and daily water operations of the Rio Grande system, and will be used for routine model support and enhanced technical development with other participating agencies/stakeholders. The model requires continued critical enhancements to better serve water managers and stakeholders in making more informed and efficient daily operational decisions for planning for Endangered Species Act and National Environmental Policy Act needs.

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: The URGWOM model is a critical component used by the Corps and other Federal Agencies to develop operational scenarios for Endangered Species Act (ESA) Compliance.

Division: South Pacific District: Albuquerque Project Name: Upper Rio Grande Water Operations Model (URGWOM), NM

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Ventura Harbor, CA

AUTHORIZATION: Rivers and Harbors Act of 1965

LOCATION AND DESCRIPTION: Located in Ventura County, CA, the project elements consist of an Entrance Channel, Sand Trap, three Jetties, South Beach Groin, and a Detached Breakwater.

RECOVERY ACT ALLOCATIONS TO DATE: \$ 0
PRESIDENT'S BUDGET FOR FY 2011: \$2,840,000
BUDGET FOR FY 2012: M: \$2,805,000 O: \$0 T: \$2,805,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: \$2,805,000 – Funds will be used to conduct maintenance dredging of the Entrance Channel.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Storm activity and wave action cause sediment to shoal in the Entrance Channel. Annual dredging of the Harbor is critical. Without maintenance dredging, the Harbor will experience shoaling at the Entrance, creating a hazard to navigation. Ventura is a subsistence harbor which supplies needed materials and personnel to the Channel Islands. The Harbor brings in over 50 million pounds of fish annually.

Division: South Pacific

District: Los Angeles

Project Name: Ventura Harbor, CA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Whitlow Ranch Dam, AZ

AUTHORIZATION: Flood Control Act of 1946

LOCATION AND DESCRIPTION: The Project is located approximately 50 miles southeast of Phoenix, Arizona. The project elements being operated and maintained consist of an earth fill dam, outlet works, service roads, and a reservoir. The structure is un-gated and requires little maintenance. Initially placed in operation December of 1960, the project structures are in good condition.

RECOVERY ALLOCATIONS TO DATE: \$ 271,000

PRESIDENT'S BUDGET FOR FY 2011: \$607,000

BUDGET FOR FY 2012: M: \$78,000 O: \$ 210,000 T: \$ 288,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

N: N/A

FRM: \$266,000 – funding provides for maintenance of dam and appurtenant structures, entry permits, encroachment and outgranting and operation of dam; service facility and grounds, utilities, water control and reservoir operations, hydrographic instrumentation, compliance & utilization inspections, and formal periodic inspections and monitoring.

Rec: N/A

Hydro: N/A

ES: \$ 22,000 – funding provides for labor and travel funds for cultural staff to perform field reconnaissance, update condition of cultural resources, and report on cultural/historic sites at Whitlow Ranch Basin.

WS: N/A

OTHER INFORMATION: None.

Division: South Pacific

District: Los Angeles

Project Name: Whitlow Ranch Dam, AZ

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Yuba River, CA

AUTHORIZATION: Rivers and Harbors Acts of 1896 & 1902

LOCATION AND DESCRIPTION: Project consists of a debris barrier, Daguerre Point Dam, with dikes across overflow channels and protective works (groins) downstream to maintain the Yuba River in its confined channel to the junction with the Feather River at Marysville. Federal responsibility consists of maintaining dikes and protective works to keep the Yuba River in its confined channel. The project is located in Yuba County.

RECOVERY ACT ALLOCATION TO DATE: \$0

PRESIDENT'S BUDGET FOR FY2011: \$121,000

BUDGET FOR FY2012: M: \$ 38,000 O: \$59,000 T: \$97,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2012:

N: \$67,000 – Funding will be used for operation and maintenance of Dam and all appurtenant structures which includes the debris barrier with dikes across overflow channels and protective works downstream to maintain the Yuba River in its confined channel. Funding also includes monitoring and analysis of instrumentation and data collection and real estate requirements including state and local agency coordination.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: \$30,000 - Funding is required to comply with Endangered Species Act Section 7 terms and conditions.

WS: N/A

OTHER INFORMATION: There is an ongoing litigation brought by the South Yuba River Citizens League (SYRCL) regarding project impacts to ESA listed species (salmon, steelhead and green sturgeon). The latest Biological Opinion issued in 2007 contained extensive requirements to mitigate for fisheries impacts. Funding will be needed to implement these requirements as well as any additional requirements imposed as a result of a new Biological Opinion to be issued in 2012.

Division: South Pacific

District: Sacramento

Project Name: Yuba River, CA

**SOUTHWESTERN
DIVISION**

SOUTHWESTERN DIVISION

JUSTIFICATION OF ESTIMATE

SOUTHWESTERN DIVISION
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FLOOD AND COASTAL STORM DAMAGE REDUCTION

INVESTIGATIONS

Study		Total Estimated Federal Cost \$	Allocation Prior to FY 2009 \$	Allocation FY 2009 \$	Allocation FY 2010 \$	Allocation FY 2011 \$	Tentative Allocation FY 2012 \$	Additional to Complete After FY 2012 \$
Dallas Floodway, Dallas, TX	Annual Allocations	19,300,000	0	0	1,345,000	1,830,000 ^{1/}	700,000	15,425,000
Fort Worth District	ARRA Allocations			0				
	Total Allocations	19,300,000	0	0	1,345,000	1,830,000	700,000	15,425,000

^{1/} The FY 2011 President's Budget amount was \$700,000, but project received a Continuing Resolution (CR) allocation of \$1,830,000.

The study area is located adjacent to the Stemmons business corridor and the central business district in metropolitan Dallas, Dallas County, Texas. The existing floodway extends along the Trinity River upstream from the abandoned Atchison, Topeka and Santa Fe (AT&SF) railroad bridge at river mile 497.37, to the confluence of the West and Elm Forks at river mile 505.50, then upstream along the West Fork for approximately 2.2 miles and upstream along the Elm Fork approximately four miles. Of the 22.6 miles of levees within this project, the East Levee is 11.7 miles in length and the West Levee is 10.9 miles in length. In addition to the existing levees, the floodway includes a modified channel within the existing reach and structures including six pumping plants, five pressure conduits, and seven drainage structures. The original Dallas Floodway levees and interior drainage improvements were completed between 1928 and 1931 by the city of Dallas and the Dallas County Levee Improvement District. The Trinity River was rerouted by constructing a channel within the leveed floodway. The original channel was either filled or used for sump storage. In the mid 1940's, major floods compounded by continued upstream urbanization in the watershed overflowed the floodway system and resulted in severe flooding. Subsequently, several Corps of Engineers improvements to the Dallas Floodway were completed in 1959. The improvements included reinforcing and raising the levees to provide conveyance of the Standard Project Flood (SPF) within the floodway, plus four feet of freeboard. To improve interior drainage, additional pump stations were constructed and the channel within the floodway was further excavated to an average depth of 25 feet with a 50-foot bottom width, to provide the design capacity of 13,000 cubic feet per second (cfs). The existing Dallas Floodway project removed approximately 10,500 acres from the floodplain, most of which is now highly developed industrial property. Major floods occurred in 1989, 1990, and 2007 in the Dallas Floodway. The existing Federal levee system prevented approximately \$250 million in damages during the June 2007 flood event. Subsequent studies of the existing floodway levees within the project reach in 1998 estimated their current level of protection to be approximately a 300-year frequency instead of the original SPF plus 4-feet of freeboard level of protection, due to changed hydrologic conditions resulting from increased upstream development. The feasibility study includes a comprehensive assessment of all actions proposed within the Dallas Floodway. The sponsor is the City of Dallas. The feasibility cost sharing agreement was executed on 5 May 2010.

The City of Dallas' master plan for future development on the Trinity River, entitled the Trinity River Corridor Project, includes flood risk management, recreation, ecosystem restoration, and transportation features. Section 5141 of the Water Resources Development Act of 2007 (Public Law 110-114) authorized construction of the flood risk management, recreation and ecosystem restoration features of the City of Dallas' comprehensive plan at a total project cost of \$459,000,000 with an estimated Federal share of \$298,000,000 and an estimated non-Federal share of \$161,000,000. On-going studies related to the Trinity River Corridor Project involve coordination with multiple Federal (Federal Highways Administration and Federal Emergency Management Agency), State (Texas Department of Transportation), and local agencies. The Corps of Engineers and the City of Dallas have worked collaboratively with other stakeholders to develop an action plan, which includes a comprehensive, system-wide assessment of the City of Dallas' measures to remediate deficiencies in the existing levee system, and to determine the technical and environmental feasibility for implementing elements of the City of Dallas' comprehensive plan, while ensuring the integrity of the Dallas Floodway Levee System.

Dallas Floodway, Dallas, Texas (continued)

Fiscal Year 2011 funds are being used to continue the assessment of the flood risk management measures, review the city's plan for restoring 100-year level of protection, and initiate the comprehensive analysis of all proposed actions. The funds requested for Fiscal Year 2012 would be used to complete the comprehensive analysis, identify the recommended plan, and initiate preparation of the Draft Feasibility Report. The preliminary estimated cost of the overall feasibility study is \$38,600,000, based on a 50/50 cost share with the sponsor. A summary of study cost sharing is as follows:

Total Estimated Study Cost	\$38,600,000
Reconnaissance Phase (Federal)	0
Feasibility Phase (Federal)	19,300,000
Feasibility Phase (Non-Federal)	19,300,000

The completion date for the feasibility study is to be determined.

Study		Total Estimated Federal Cost \$	Allocation Prior to FY 2009 \$	Allocation FY 2009 \$	Allocation FY 2010 \$	Allocation FY 2011 \$	Tentative Allocation FY 2012 \$	Additional to Complete After FY 2012 \$
Guadalupe and San Antonio, TX	Annual Allocations	8,382,000	4,033,000	382,000	359,000	600,000	400,000	2,608,000
River Basins, TX	ARRA Allocations			0				
Fort Worth and Galveston Districts	Total Allocations	8,382,000	4,033,000	382,000	359,000	600,000	400,000	2,608,000

The Guadalupe and San Antonio River watersheds are located in south-central Texas. The Guadalupe basin has a drainage area of 6,700 square miles, and the San Antonio River basin has a drainage area of 4,180 square miles. Severe flooding occurred within various portions of the Guadalupe and San Antonio River basins in 1972, 1978 and 1997, when portions of the river basins were declared disaster areas. Major flood events also occurred in 1998, 2000, 2002, 2004 and 2010. The flood event in October 1998 was one of the most devastating in the region, resulting in approximately \$800 million in damages and 31 deaths. The July 2002 event had damages in excess of \$1 billion and nine deaths. The flood event in June 2004 resulted in the loss of three more lives, and in June 2010, severe flooding damaged New Braunfels, Texas, and claimed another life. The purpose of the Guadalupe and San Antonio River study is to identify risks and opportunities for flood risk management, especially as it relates to human safety. Structural and non-structural alternatives have been identified and are currently being evaluated. Additional study purposes include ecosystem restoration, water supply, recreation and other allied purposes. Texas Senate Bill 1 (1997) included the evaluation of alternatives to enhance water supply, including recharge of the Edwards Aquifer and Comal and San Marcos Springs. The Edwards Aquifer contains seven endangered and one threatened species. The endangered species are: Fountain Darter (*Etheostoma fonticola*); Texas Blind Salamander (*Eurycea rathbuni*); San Marcos Gambusia (*Gambusia georgei*); Texas Wild Rice (*Zizania texana*); Comal Springs Riffle Beetle (*Heterelmis comalensis*); Comal Springs Dryopid Beetle (*Stygoparmus comalensis*); and Peck's Cave Amphipod (*Stygobromus pecki*), and the San Marcos Salamander (*Eurycea nana*) is threatened. The alternatives, if adopted, could provide dual benefits of ecosystem restoration and water supply. There are currently four interim feasibility studies (Cibolo Creek, Leon Creek, Salado Creek, and Alamo Heights) under the Guadalupe-San Antonio River Feasibility Study. All four interim feasibility studies are multipurpose studies addressing flood risk management, ecosystem restoration, and water supply. The non-Federal sponsors are the San Antonio River Authority, San Antonio Water System and the Guadalupe Blanco River Authority. The feasibility cost sharing agreement with the local sponsors was most recently modified on 28 September 2005.

Fiscal Year 2011 funds are being used to complete the draft report for the Leon Creek Interim Feasibility Study (IFS), conduct Plan Formulation for the Cibolo Creek IFS, and initiate the Salado Creek IFS. The funds requested for Fiscal Year 2012 will be used to complete the final report for the Leon Creek IFS; complete the draft report for the Cibolo Creek IFS; and continue the Salado Creek IFS. The preliminary estimated cost of the overall feasibility study is \$15,692,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	\$16,228,000
Reconnaissance Phase (Federal)	536,000
Feasibility Phase (Federal)	7,846,000
Feasibility Phase (Non-Federal)	7,846,000

The scheduled completion date for the Leon IFS and the Cibolo IFS is December 2012. The completion dates for the Salado Creek IFS, Alamo Heights IFS, and the overall Guadalupe San Antonio River Basins, TX, feasibility study are to be determined.

Study		Total Estimated Federal Cost \$	Allocation Prior to FY 2009 \$	Allocation FY 2009 \$	Allocation FY 2010 \$	Allocation FY 2011 \$	Tentative Allocation FY 2012 \$	Additional to Complete After FY 2012 \$
Lower Colorado River Basin, TX	Annual Allocations	11,635,000	7,012,000	406,000	484,000	425,000	425,000	2,883,000
Fort Worth and Galveston Districts	ARRA Allocations			0				
	Total Allocations	11,635,000	7,012,000	406,000	484,000	425,000	425,000	2,883,000

The Lower Colorado River basin encompasses a geographic area of approximately 21,000 square miles, and includes portions of the following counties in central and south Texas: Bastrop, Blanco, Burnet, Colorado, Fayette, Hays, Lampasas, Llano, Matagorda, Mills, San Saba, Travis and Wharton. The northernmost reaches of the study area include the Highland Lakes upstream of Austin, while the southernmost boundary is the Gulf of Mexico. The study area is bounded by the Guadalupe, Lavaca, and Colorado-Lavaca basins on the west, and the Brazos and Brazos-Colorado basins on the east. The major metropolitan areas within the study boundaries are Austin, Bastrop, Bay City, Columbus, LaGrange, Marble Falls and Wharton. An Information Paper, dated October 2003, documented the studies that were conducted to identify the problems, needs and opportunities of the basin. In October 1998, widespread flooding and related damages occurred throughout the Lower Colorado River basin and served as the impetus for initiating this study in 1999. Subsequently, basin-wide flooding has occurred in 2002, 2004, and most recently in June 2007, when the area around the city of Marble Falls received a history-making 19 inches of rainfall within a 24-hour period. Onion Creek, Shoal Creek, Walnut Creek, Bastrop County, the Highland Lakes, and the city of Wharton have experienced increased flooding and alterations to wildlife habitat. The study identified approximately 34,000 structures in the Lower Colorado River floodplain with over \$25 million in expected average annual damages. The study also identified 25 potential sites for ecosystem restoration. While most of the problem areas will be addressed in specific interim feasibility studies (IFS), there are sites which await the identification of a cost sharing sponsor. IFS for Onion Creek and the city of Wharton were completed in December 2006, and were authorized in the Water Resources Development Act of 2007 (Public Law 110-114). The feasibility cost sharing agreement with the Lower Colorado River Authority, acting as sponsor on behalf of the local interests for the various interim studies, was most recently modified on 27 August 2010.

Fiscal Year 2011 funds are being used to continue the IFS for Highland Lakes and Bastrop County; and continue development of existing conditions for the Hays County IFS. The funds requested for Fiscal Year 2012 will be used to continue the Highland Lakes IFS, Bastrop County IFS, and Hays County IFS and initiate the Shoal Creek IFS. The estimated cost of the overall feasibility study is \$23,020,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	\$ 23,145,000
Reconnaissance Phase (Federal)	125,000
Feasibility Phase (Federal)	11,510,000
Feasibility Phase (Non-Federal)	11,510,000

The Highland Lakes IFS is scheduled for completion in September 2012. The completion dates for the Hays County IFS, Shoal Creek IFS, Bastrop County IFS, and the overall basin-wide study are to be determined.

CONSTRUCTION

APPROPRIATION TITLE: Construction - Local Protection (Flood & Coastal Storm Damage Reduction)

PROJECT: Brays Bayou, Houston, Texas (Continuing)

LOCATION: The project is located in the metropolitan area of Houston, in Harris County, Texas.

DESCRIPTION: The project consists of 4 detention basins (Sam Houston, Old Westheimer Road, Eldridge Road, and Willow Waterhole); enlargement or modification of 21.1 miles of earthen channel, replacement and / or lengthening of 27 bridges, and recreation features including hike and bike trails, picnic facilities, sports fields, comfort stations, and parking areas.

AUTHORIZATION: Water Resources Development Act (WRDA) of 1990, and section 211 of WRDA 1996.

REMAINING BENEFIT-REMAINING COST RATIO: 2.5 to 1 at 7 percent

TOTAL BENEFIT-COST RATIO: 2.2 to 1 at 7 percent

INITIAL BENEFIT-COST RATIO: 2.97 to 1 at 7 5/8 (FY 1998)

BASIS OF BENEFIT-COST RATIO: Benefits for the total project are from the approved updated economic analysis included in the Brays Bayou Economic Update dated December 2010 with October 2010 price levels.

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST	STATUS (1 Jan 2011)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		\$308,245,000		Entire Project	50%	To Be Determined
Estimated Non-Federal Cost		263,415,000				
Cash Contributions	30,571,000					
Other Costs	232,844,000					
Total Estimated Project Cost			\$571,660,000			
PHYSICAL DATA						
Allocations to 30 September 2008		72,566,000				
Allocation for FY 2009		5,011,000				
Allocation for FY 2010		17,277,000				
Recovery Act Allocations to Date		0				
President's Budget for FY 2011		7,740,000				
Allocation for FY 2011		7,740,000				
Allocations through FY 2011		102,594,000	33%			Channel Improvements – 21.1miles
Budget for FY 2012		3,000,000	34%			Detention Basins - 4
Programmed Balance to Complete after FY 2012		202,651,000				Bridge replacements/modifications – 27
Unprogrammed Balance to Complete after FY 2012		0				Recreation facilities Hike-and-bike trails with picnic facilities, sports fields, and other day-use facilities.

Division: Southwestern

District: Galveston

Project: Brays Bayou, Houston, Texas

JUSTIFICATION: Brays Bayou drains about 137 square miles in the south-central portion of the Buffalo Bayou watershed. About 53,400 homes and businesses are currently subject to flooding by the Standard Project Flood (SPF), and about 25,000 of these properties would be subject to flooding by a 100-year frequency flood. On an average annual basis, stream flooding could cause nearly \$46,000,000 in damages per year to existing properties. The plan would reduce the existing 100-year frequency floodplain area by about 97 percent. Average annual flood damages would be reduced by about 95 percent. The recreational development will partially satisfy existing demand in the area. Average annual benefits for recreation, annualized at a 7-3/8% interest rate and based on October 1996 prices, along with average annual benefits for flood damage prevention, annualized at a 7 % interest rate and based on October 2010 prices are as follows:

Annual Benefits	Amount
Flood Damage Prevention	\$ 124,944,000
Recreation	3,132,957
Total	\$ 128,076,957

FISCAL YEAR 2011: The current amount of \$7,740,000 is being used to reimburse the Harris County Flood Control District (non-Federal Sponsor) for the Federal share of construction work performed during fiscal year 2011 in accord with Section 211 (f) of the Water Resources Development Act of 1996 and the associated Engineering and Design and Construction Management costs as follows.

Final Reimbursement for completed FY11 work for Discrete Segment #203 Willow Waterhole Detention Basin	\$ 801,000
Reimbursement for completed FY11 work for Discrete Segment #206 Willow Waterhole Detention Basin	2,415,000
Initial Reimbursement for completed FY11 work for Discrete Segment #209 Willow Waterhole Detention Basin	4,404,000
Management and Supervision	120,000
Total	\$ 7,740,000

FISCAL YEAR 2012: The requested amount of \$3,000,000 will be used to reimburse the Harris County Flood Control District (non-Federal Sponsor) for the Federal share of construction work performed during fiscal year 2012 in accord with Section 211 (f) of the Water Resources Development Act of 1996 and the associated Engineering and Design and Construction Management costs as follows.

Reimbursement for completed for Discrete Segment #209 Willow Waterhole Detention Basin	\$ 2,870,000
Management and Supervision	130,000
Total	\$ 3,000,000

Division: Southwestern

District: Galveston

Project: Brays Bayou, Houston, Texas

NON-FEDERAL COST & REQUIREMENTS: Brays Bayou has been identified as a demonstration project by Section 211(f) of the Water Resources Development Act of 1996 (P.L. 104-303). This Act authorized the non-Federal sponsor to accomplish the work and be subsequently reimbursed for the Federal share of completed discrete segments, in accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, as listed below:

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, rights-of-way, and borrow and excavated or dredged material disposal areas.	81,401,000	
Modify or relocate, utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	151,443,000	
Pay one-half of the separable costs allocated to recreation and bear all cost of operation, maintenance, repair, rehabilitation and replacement of recreation facilities.	3,665,000	357,300
Pay 5 percent of the costs allocated to flood control, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	26,906,000	683,000
Total Non-Federal Costs	263,415,000	1,040,300

The non-Federal sponsors must also agree to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: The sponsor for the flood damage reduction project is the Harris County Flood Control District. The Project Cooperation Agreement (PCA) for the flood control portion of the Upstream (Detention) Component was executed on March 3, 2000, and included the provision of Section 211, WRDA 96. Their General Reevaluation Report, dated December 2008, was submitted to the Assistant Secretary of the Army, Civil Works (ASA(CW)), and was approved April 3, 2009. An amendment to the existing PCA was executed on 31 March 2010. Harris County Flood Control District has a strong inclination to support the recreation features via strong commitments from Non-Governmental organizations.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$308,245,000 is an increase of \$28,000 from the latest estimate (\$308,217,000) presented to Congress (FY 2011). This change includes the following items.

Item	Amount
Price Escalation on Construction Features	+ \$ 28,000
Total	+ \$ 28,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Environmental Impact Statement was filed with the Environmental Protection Agency in September 1988. The Environmental Assessment (EA) for the Detention Component was completed on 3 April 1998 with the signing of the Finding of No Significant Impacts (FONSI).

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in Fiscal Year 1990, and funds to initiate construction were appropriated in Fiscal Year 1998.

The project was included in the Water Resources Development Act of 1996 (Section 211(f)(6)) as a demonstration project to show advantages and effectiveness of non-Federal interests to undertake planning, design, and construction of Federal Flood Control projects. The Harris County Flood Control District (HCFCD) will receive reimbursement upon completion and approval of discrete segments of the authorized project contingent upon the availability of funds. Each discrete segment's work will be audited prior to reimbursement. Funds being appropriated will be used to reimburse the sponsor and to pay Corps oversight costs.

Harris County experienced a major flooding event on October 15 through 16th, 2006. The HCFCD reported that completed discrete segments of the Brays Bayou project located upstream of the Sam Houston Tollway stored more than 3,500 acre-feet of water (equivalent to 1.1 billion gallons of water or 2.2 Astrodomes), which reduced residential and commercial flooding within the upper reaches of the watershed. At the time this flood event occurred only 60 percent of the 3 upstream detention basins had been completed. Upon completion of the entire project the detention basins will be constructed to hold 9,975 acre-feet of storm water.

APPROPRIATION TITLE: Construction, General - Dam Safety Assurance.

PROJECT: Canton Lake, Oklahoma, (Dam Safety), (Continuing)

LOCATION: The project is located on the North Canadian River about 2 miles north of Canton in Blaine County, Oklahoma.

DESCRIPTION: Construction of the project was completed in May 1948. The dam consists of a rolled earth fill embankment with a gate controlled, concrete gravity chute-type spillway located in the right abutment. The outlet works consist of three sluices through the spillway weir, which are controlled by broome-type gates. The recommended plan for resolution of the dam safety deficiencies consists of anchoring the existing spillway to improve sliding stability, relocating Highway 58A, constructing an auxiliary spillway to increase the discharge capacity required during a probable maximum flood event, and placing the excavated material from the spillway excavation at the toe of the earthen dam to resolve the seismic and seepage deficiencies as an additional benefit.

AUTHORIZATION: Flood Control Act of 1938.

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable.

TOTAL BENEFIT-COST RATIO: Not applicable since the project is a dam safety assurance project.

INITIAL BENEFIT-COST RATIO: Not applicable since the project is a dam safety assurance project.

BASIS OF BENEFIT-COST RATIO: Not applicable since the project is a dam safety assurance project.

Division: Southwestern

District: Tulsa

**Project: Canton Lake, Oklahoma
(Dam Safety)**

14 February 2011

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SUMMARIZED FINANCIAL DATA		ACCUM. PCT. OF EST. FED. COST	STATUS (1 Jan 2011)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Original Project			Entire Project	44%	To Be Determined
Actual Federal Cost	\$ 11,210,000				
Actual Non-Federal Cost	\$ 0				
Cash Contributions	0				
Total Original Project Cost	\$ 11,210,000				

Remedial Works or Project Modification					
Estimated Total Appropriation Requirement		\$152,865,000			
Future Non-Federal Reimbursement		5,694,000			
Estimated Federal Cost (Ultimate)		147,171,000			
Estimated Non-Federal Cost		5,694,000			
Cash	\$5,694,000				
Other	\$0				
Total Estimated Remedial or Modification Cost		152,865,000			
Total Estimated Project Cost		\$164,075,000			
Allocations to 30 September 2008		35,528,000			
Allocation for FY 2009		20,288,000			
Allocation for FY 2010		22,911,000			
Recovery Act Allocations to Date		0			
President's Budget for FY 2011		24,334,000			
Allocation for FY 2011		24,334,000			
Allocations through FY 2011		103,061,000	67%		
Budget for FY 2012		11,100,000	75%		
Programmed Balance to Complete after FY 2012		38,704,000			
Unprogrammed Balance to Complete after FY 2012		0			

PHYSICAL DATA

Dams

- Anchor Stabilization of Existing Spillway Structure
- New Auxiliary Spillway and Channel
- New Auxiliary Spillway Bridge
- Rehabilitate Existing Spillway Bridge

Division: Southwestern

District: Tulsa

Project: Canton Lake, Oklahoma
(Dam Safety)

JUSTIFICATION: The Dam Safety Assurance Report, approved in 2002, indicated two serious and interrelated hydrologic deficiencies occurred at the existing Canton Lake. The deficiencies included inadequate factors of safety against spillway sliding and uncontrolled embankment overtopping by the Probable Maximum Flood. In 2005 Canton was included in Screening Portfolio Risk Assessment which indicated that Canton was within the top ten percent highest at risk dams with regard to failure by uncontrolled seepage. In 2005 a Seismic Safety Review was conducted which indicated that the embankment could move during a seismic event. The population at risk is 60,000 people with potential economic losses estimated between \$1.75 and \$2.64 Billion.

FISCAL YEAR 2011: The requested amount of \$24,334,000 will be applied as follows:

Award a fully funded contract for construction of the weir, control wet well, and hydraulic piping	21,825,000
Complete Plans and Specifications for weir and fuse gates	290,000
Initiate Plans and Specifications for phase 2 excavation (plug removal)	669,000
Construction Management (Supervision & Administration)	<u>1,550,000</u>
Total	\$24,334,000

FISCAL YEAR 2012: The requested amount of \$11,100,000 will be applied as follows:

Award fully funded contract for fuse gate and bulkhead	7,100,000
Complete Plans and Specifications for Phase 2 auxiliary channel contract	400,000
Construction Management (Supervision & Administration)	<u>3,600,000</u>
Total	\$11,100,000

Division: Southwestern

District: Tulsa

Project: Canton Lake, Oklahoma
(Dam Safety)

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Construction	Annual Operation, Maintenance, Repair Rehabilitation and Replacement Costs
Pay 15 percent of cost assigned to project purposes in accordance with the cost allocation in effect for the project at the time of initial project construction. Water supply storage is 25.5 percent of the joint-use costs.	\$ 5,694,000	0
Total Non-Federal Costs	\$ 5,694,000	0

The non-Federal sponsor will reimburse its share of construction costs over a period not to exceed 30 years following completion of construction.

STATUS OF LOCAL COOPERATION: The city of Oklahoma City has 100 percent of the water supply storage under contract. Water supply storage is 25.5 percent of the joint-use costs. Reimbursement payments will be initiated at the completion of construction.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$148,865,000 is not changed from the last estimate presented to Congress (FY 2010).

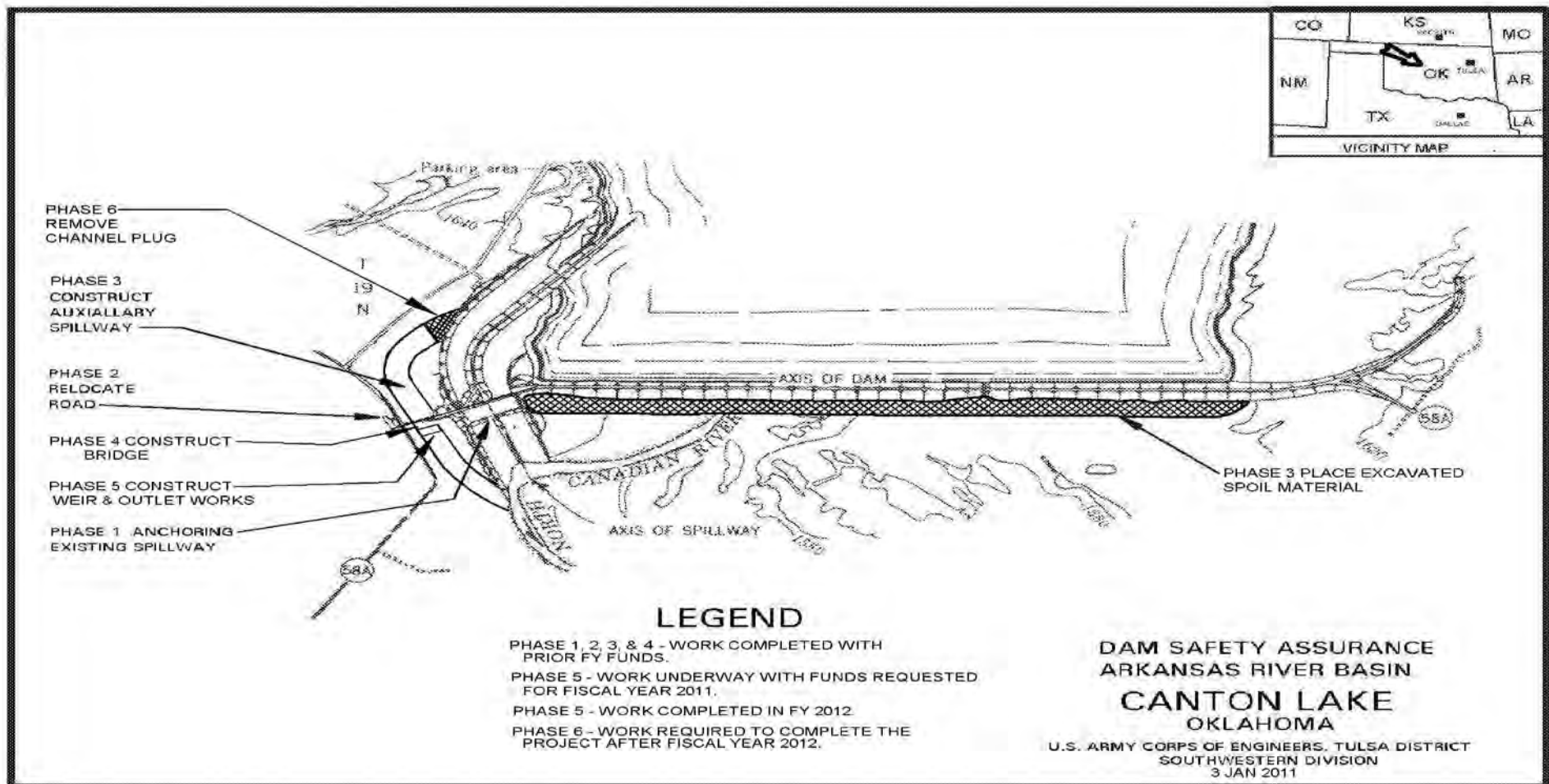
STATUS OF ENVIRONMENTAL IMPACT STATEMENT: Not required. The provisions of Section 404 of the Clean Water Act do not apply because the project improvements do not involve the placement of fill material or the discharge of dredge material in the waters of the United States.

OTHER INFORMATION: A Dam Safety Assurance Program Evaluation Report was approved in March 2002. Construction funds were first appropriated for this project in Fiscal Year 2003. During FY06 a seismic and seepage study was performed in addition to the Design Document Report (DDR), which required the relocation of the auxiliary spillway from the Left Abutment to the Right Abutment areas of Canton Dam due to foundation issues.

Division: Southwestern

District: Tulsa

**Project: Canton Lake, Oklahoma
(Dam Safety)**



Division: Southwestern

District: Tulsa

Project: Canton Lake, Oklahoma
(Dam Safety)

14 February 2011

SWD - 23

APPROPRIATION TITLE: Construction – Major Rehabilitation (Reservoirs)

PROJECT: Clearwater Lake Major Rehabilitation, Missouri (Continuing)

LOCATION: Clearwater Lake is located on the Black River in Wayne and Reynolds Counties in southeast Missouri.

DESCRIPTION: The project provides for the construction of a concrete cutoff wall along the entire length of the dam, through the impervious core trench, and into bedrock to prevent seepage and piping of materials through and under the dam. The project purpose is flood risk management and 100% of storage is for this purpose.

AUTHORIZATION: Flood Control Act of 1938 (Public Law 761, 75th Congress, 3rd Session).

REMAINING BENEFITS-REMAINING COST RATIO: Not Applicable.

TOTAL BENEFIT-COST RATIO: Not applicable since the project is a dam safety assurance project.

INITIAL BENEFIT-COST RATIO: Not applicable since the project is a dam safety assurance project.

BASIS OF BENEFIT-COST RATIO: Not applicable since the project is a dam safety assurance project.

SUMMARIZED FINANCIAL DATA	ACCUM PCT OF EST FED COST	STATUS (1 Jan 2011)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	\$247,846,000	Entire Project	68%	To Be Determined
Estimated Non-Federal Cost	0			
Total Estimated Project Cost	\$247,846,000			

PHYSICAL DATA

Concrete Cutoff Wall approximately 1,000,000 square feet

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST	STATUS (1 Jan 2011)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Allocations to 30 September 2008	65,420,000				
Allocation for FY 2009	23,924,000				
Allocation for FY 2010	37,791,000				
Recovery Act Allocations to Date	40,711,000				
President's Budget for FY 2011	40,000,000				
Allocation for FY 2011	40,000,000				
Allocations through FY 2011	207,846,000	84%			
Budget for FY 2012	32,900,000	98%			
Programmed Balance to Complete after FY 2012	7,100,000				
Unprogrammed Balance to Complete after FY 2012	0				

JUSTIFICATION: Clearwater Dam has experienced seepage related issues, extending back to shortly after completion of original construction. Over the course of the dam's history, various methods have been employed to remediate or reduce seepage related issues. In spite of all these efforts and expenditures, the problem has worsened. A sinkhole developed in the upstream face of the dam in January 2003, calling into question the integrity of the dam embankment and potentially the clay core. Continuing to defer a long-term solution to the seepage problem increases the risk of a dam failure. Noteworthy is the fact that conditions of earth dams have the potential to deteriorate quickly, with little evidence. Continuing to utilize O&M funding to monitor and band-aid the problem is no longer viable. The area that would be affected by a dam failure primarily extends from the dam downstream to Poplar Bluff, MO. If dam failure occurs, there would be very little warning time before Piedmont, MO is cutoff and inundation begins; adverse impacts to Poplar Bluff, MO would occur within one day. The limited state highways follow the valley where flooding will occur, making egress and response assistance to the population at risk very difficult. Many smaller towns affected by flooding have only one egress route. The rural nature of the area makes emergency notification difficult. Failure of Clearwater Dam would negate the benefits for which the project was originally approved. The risk-based economic analysis indicates property damages of up to \$200,000,000 and potentially 369 deaths. Clearwater Lake is an important economic resource for the area, primarily through recreational usage. Failure of the dam and loss of the lake would result in the loss of its economic value to the area. Though residents might return to salvage their property following a failure, decreased property values, loss of jobs, income losses, and loss of wealth due to flood induced expenses would have negative economic effects. Average annual benefits are as follows:

FISCAL YEAR 2011: The allocated amount of \$40,000,000 is being applied as follows:

Continue Construction of Cutoff Wall – Phase II	\$37,000,000
Complete Repair of Under Drainage System	500,000
Engineering and Design	1,000,000
Construction Management	1,500,000
Total	\$40,000,000

Division: Southwestern

District: Little Rock

Project: Clearwater Lake Major Rehabilitation

14 February 2011

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FISCAL YEAR 2012: The requested amount of \$32,900,000 will be applied as follows:

Complete Construction of Cutoff Wall – Phase II	\$30,000,000
Revise Water Control Plan	400,000
Engineering and Design	1,000,000
Construction Management	1,500,000
Total	\$32,900,000

NON-FEDERAL COST: This major rehabilitation project is 100% federally funded.

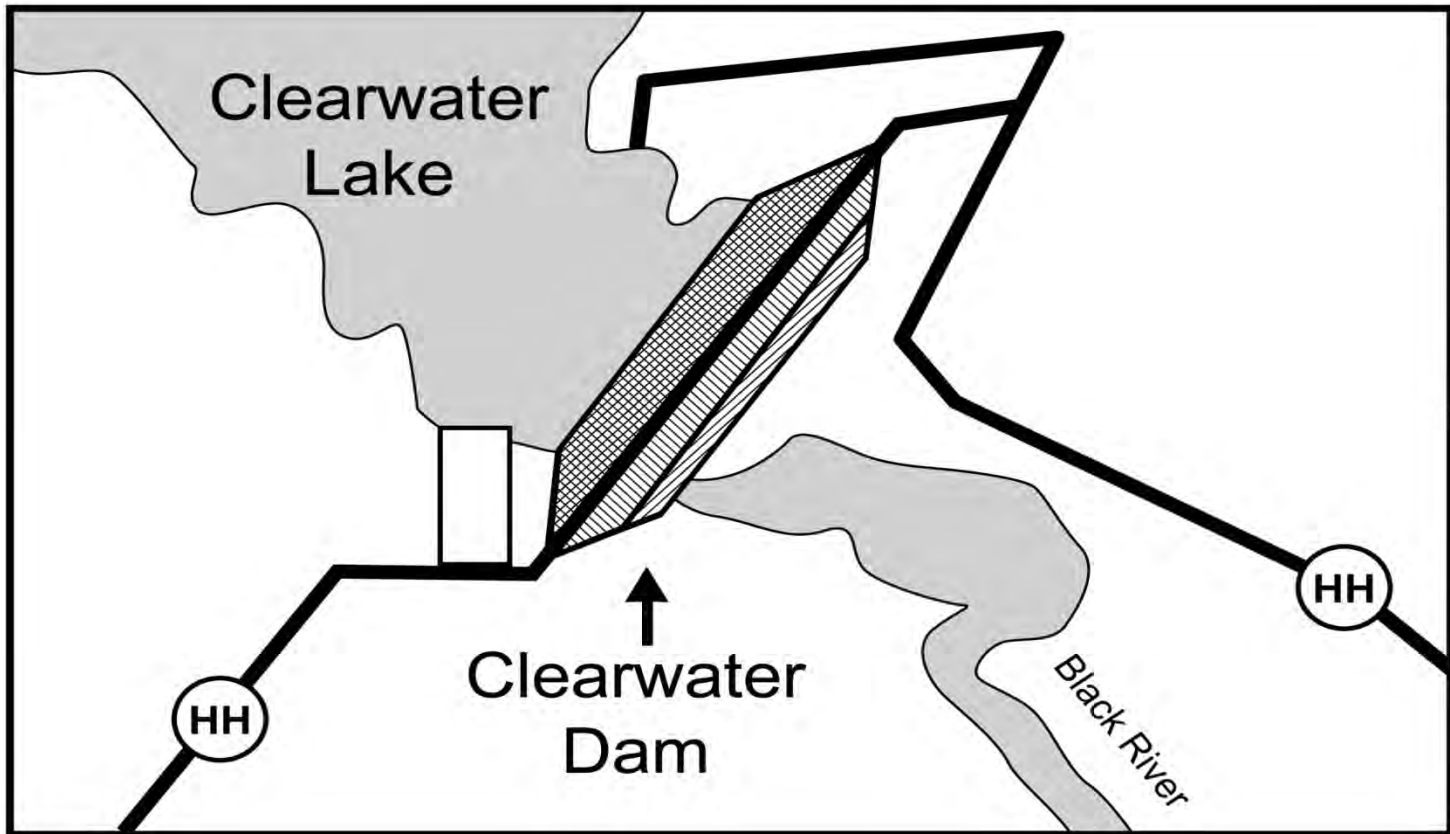
STATUS OF LOCAL COOPERATION: There are no cost sharing or repayment requirements applicable to this project.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$247,846,000 is an increase of \$3,158,000 from the latest estimate (\$244,688,000) presented to Congress (FY 2010). This change includes the following items.

Item	
Price De-escalation on Construction Features	-\$ 4,631,000
Design Changes	1,000,000
Post Contract Award and Other Estimating Adjustments	6,789,000
Total	\$3,158,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT COMPLIANCE: An environmental assessment of the project was completed in May 2004, with signature of the Finding of No Significant Impact in June 2004.

OTHER INFORMATION: The Major Rehabilitation Report was submitted in June 2004 and approved by the Assistant Secretary of the Army for Civil Works in August 2004. Funds to initiate construction were appropriated in Fiscal Year 2006. A Phase I and Ib drilling and grouting program to identify and treat subsurface features that would ultimately impact construction of the cutoff wall, as well as refine the parameters of the cutoff wall was implemented. The Phase I contract was awarded in January 2006, and completed in October 2007. A second Phase I contract, Phase Ib – Completion of Exploratory Drilling and Grouting, was awarded in August 2007 with NTP in October 2007. The construction notice to proceed was issued on the Phase II cutoff wall contract in May 2009. A preliminary seismic evaluation of the dam for the operating basis earthquake was conducted during the design of Phase I. Additional evaluation of the dam for the maximum credible earthquake is necessary to determine if the dam meets Corps dam safety criteria, which is being conducted concurrent with the cutoff wall project.



- Work complete as of 30 SEP 2010
- Work proposed with funds available for FY 2011
- Work proposed with funds available for FY 2012
- Work required to complete the project after 2012

Continue Phase II Cutoff Wall Construction
Complete Seismic Study
Complete Phase IB - Drilling and Grouting

Continue Phase II Construction

Continue Phase II Construction
Complete Underdrainage System Repair

COMPLETE REHAB
CONSTRUCTION

WHITE RIVER BASIN
CLEARWATER LAKE
MISSOURI
(MAJOR REHAB)
U.S. ARMY ENGINEER DISTRICT LITTLE ROCK
U.S. ARMY ENGINEER DIVISION, SOUTHWESTERN
1 JANUARY 2011

APPROPRIATION TITLE: Construction – Flood Risk Management

PROJECT: Onion Creek, Lower Colorado River Basin, TX (Continuing)

LOCATION: Onion Creek, Lower Colorado River Basin, Texas, is located in southern Travis and northern Hays counties in Texas.

DESCRIPTION: The project consists of implementing non-structural flood risk management measures at Timber Creek in Travis County and Onion Creek Forest/Yarrabee Bend in Austin, Texas. The Timber Creek element includes the acquisition and removal of approximately 81 residential structures from the 4 percent annual chance of exceedance (25-year) floodplain. The vacated land will be utilized for recreation and ecosystem restoration, with approximately 40 acres of the vacated land converted to a park and 16 acres restored to riparian woodlands. Recreation features include 20 picnic shelters, 8 small group shelters, 1 large group shelter, 5,300 feet of unpaved trails and 1,200 feet of paved 10 foot wide trails, 2 basketball courts, one waterborne restroom, 12,000 square feet of parking, and the infrastructure associated with these facilities. The Onion Creek Forest/Yarrabee Bend element includes the acquisition and removal of approximately 410 residential structures from the 4 percent annual chance of exceedance (25-year) floodplain. The vacated land will be utilized for recreation and ecosystem restoration, with approximately 100 acres of the vacated land converted to a park, and 190 acres restored to riparian woodlands. Recreational features include 32 picnic shelters, 32 small group shelters, 1 large group shelter, 7,860 feet of unpaved trails and 9,680 feet of paved 10 foot wide trails (including 1 footbridge), 7,400 feet of equestrian trails, 4 basketball courts, 2 tennis courts, 19 volleyball courts, one waterborne restroom, 20,000 square feet of parking, and the infrastructure associated with these facilities.

AUTHORIZATION: Water Resources Development Act of 2007, Section 1001 (43) and Section 5144.

REMAINING BENEFIT-COST RATIO: 1.7 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 1.7 to 1 at 7 percent.

BASIS OF BENEFIT-COST RATIO: Economic Analysis as shown in the Chief of Engineers Report dated 31 December 2006.

SUMMARIZED FINANCIAL DATA		ACCUM. PCT OF EST FED COST	STATUS (1 Jan 2011)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		\$50,221,000	Entire Project	1%	To Be Determined
Estimated Non-Federal Cost		29,065,000			
Cash Contributions	4,287,000				
Other Costs	24,778,000				
Total Estimated Project Cost		\$79,286,000			
PHYSICAL DATA					
Allocations to 30 September 2008		75,000			
Allocation for FY 2009		375,000	Timber Creek		
Allocation for FY 2010		0	Acquisition of approximately 81 structures		
Recovery Act Allocations to Date		0	Construction of 40 acre park		
President's Budget for FY 2011		10,000,000	Ecosystem restoration of 16 acres		
Allocation for FY 2011		0 ^{1/}	Onion Creek Forest/Yarrabee Bend		
Allocations through FY 2011		450,000	Acquisition of 410 residential structures		
Budget for FY 2012		5,000,000	Construction of 100 acre park		
Programmed Balance to Complete after FY 2012		44,771,000	Ecosystem restoration of 190 acres		
Unprogrammed Balance to Complete after FY 2012		0			

^{1/} This project is ineligible to receive an FY 2011 Continuing Resolution (CR) allocation.

JUSTIFICATION: Onion Creek watershed, which has an area of approximately 343 square miles, is located in southern Travis and northern Hays counties in Texas. Significant flood events were experienced in 1998 and 2001, with hundreds of homes being inundated and many totally destroyed. These events highlighted the fact that annualized flood damages within the watershed are estimated at over \$5 million, based on August 2006 estimates. A project has been authorized for Onion Creek which will significantly reduce damages and risk to life and property. In addition, the Onion Creek area will benefit from additional ecosystem restoration and recreational features placed on land vacated as a result of the removal of structures from the highly flood prone areas. The non-Federal sponsors consider this project to be of such urgency that advanced land acquisition and construction has been initiated without any assurances of continued Federal participation.

Annual Monetary Benefits	Amount
Flood Risk Management	\$3,010,000
Recreation	3,130,000
Total	\$6,140,000
Ecosystem Restoration – net increase of approximately 86 Average Annual Habitat Units	

Division: Southwestern

District: Fort Worth

Project: Onion Creek, Lower Colorado River Basin

FISCAL YEAR 2011: There are no scheduled activities in FY 2011.

FISCAL YEAR 2012: The budget amount will be applied as follows:

Continue acquisition and removal of the 410 residential structures located along Onion Creek Forest/Yarrabee Bend	\$2,375,000
Continue acquisition and removal of the 81 residential structures along Timber Creek	2,375,000
Engineering and Design	175,000
Supervisory and Administration	75,000
Total	\$5,000,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, as modified by the Water Resources Development Act of 1996, the non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands; easements; rights-of-way; relocation payments and assistance to displaced persons; disposal areas for borrow and excavated or dredged material; and modify or relocate utilities, roads, bridges, and other facilities, where necessary for the construction of the project.	\$68,093,000	\$230,000
Modify and relocate/reconstruct utilities, roads, bridges and other facilities, where necessary for the construction of the project.	0	
Pay one-half of the separable costs allocated to recreation (except recreation Navigation) and bear all cost of operation, maintenance, repair, rehabilitation and replacement of recreation facilities. Includes betterments for recreation.	2,409,000	
Cash reimbursement to sponsor sufficient to limit the sponsor's contribution to the maximum amount set by law.	(41,437,000)	
Total Non-Federal Costs	\$29,065,000	\$230,000

Division: Southwestern

District: Fort Worth

Project: Onion Creek, Lower Colorado River Basin

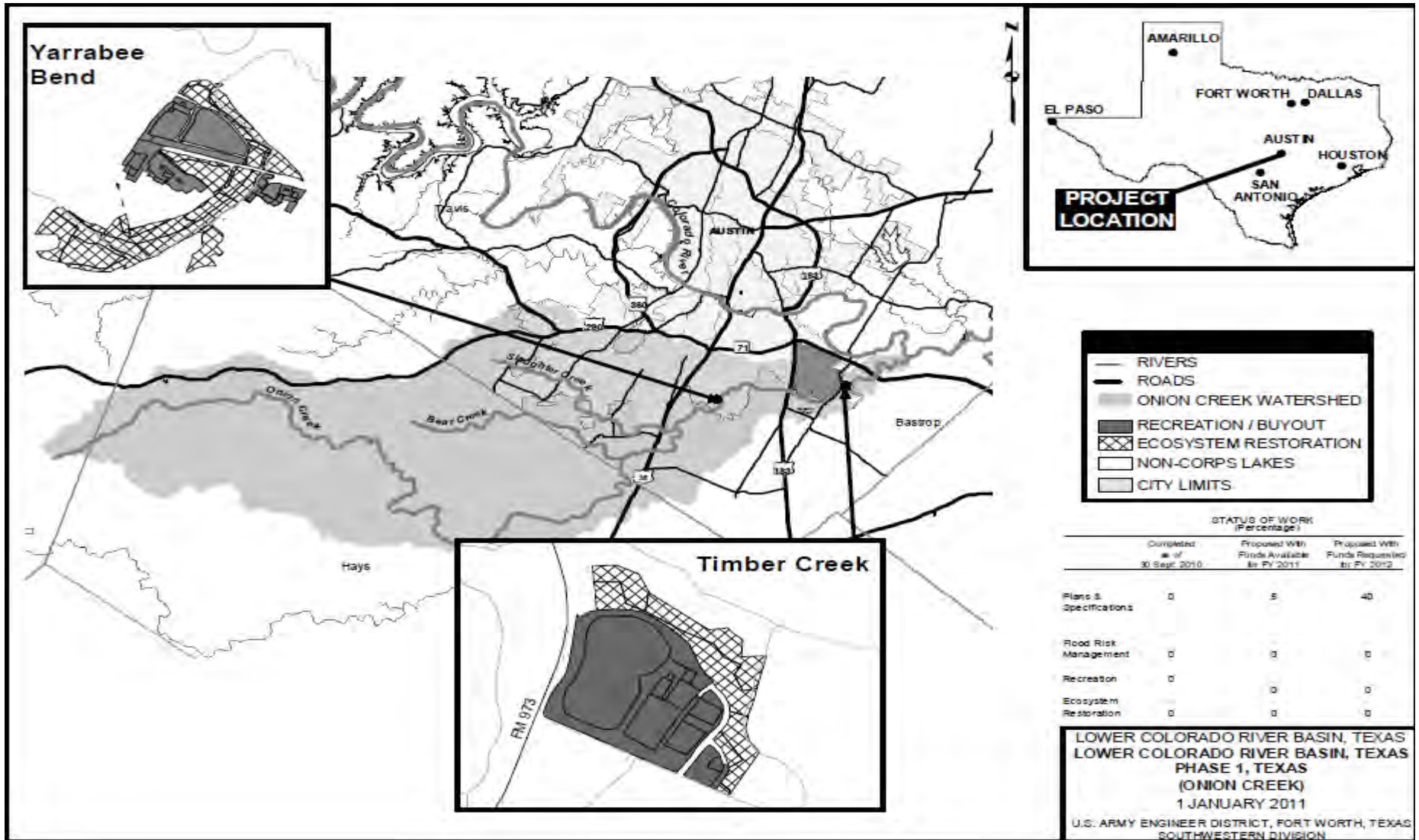
The non-Federal sponsor will make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: The city of Austin and Travis County have each indicated their intention to act as the local sponsor for the segment within their jurisdictional area, and will fund the non-Federal portion of this project. The city of Austin and Travis County will collectively contribute approximately 37 percent of the total project costs of the Onion Creek component, primarily through land acquisition, as well as receipt of credit for prior project activities authorized by the Water Resources Development Act of 2007, Section 5144. The Project Partnership Agreement (PPA) for the Timber Creek element is scheduled to be executed in March 2012. The PPA for the Onion Creek Forest/Yarrabee Bend element is scheduled to be executed in March 2012.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal (Corps of Engineers) cost estimate has previously been presented to Congress. This estimate is based on costs presented in the Chief of Engineers Report dated 31 December 2006.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT COMPLIANCE: An Environmental Assessment was conducted and a Finding of No Significant Impact (FONSI) was prepared as part of the required documentation for compliance with the National Environmental Policy Act. The FONSI was executed on 10 October 2006.

OTHER INFORMATION: The Chief of Engineers' Report was signed on 31 December 2006. Section 5144 of the Water Resources Development Act of 2007 authorized the Secretary to include the costs and benefits associated with the relocation of flood-prone residences in the study area in the period beginning two years before the date of initiation of the feasibility study (Feasibility Cost Sharing Agreement executed on 25 May 2000) and ending on the date of execution of the partnership agreement for construction of the project, to the extent the Secretary determines that such relocations are compatible with the authorized project. This section also directs the Secretary to afford credit toward the non-Federal share of the project for the cost of relocation of residences that were incurred by the non-Federal interest. A Limited Reevaluation Report (LRR) is being developed to identify the scope of the project that incorporates any residences that were removed by non-Federal interests.



NAVIGATION

INVESTIGATIONS

Study		Total Estimated Federal Cost \$	Allocation Prior to FY 2009 \$	Allocation FY 2009 \$	Allocation FY 2010 \$	Allocation FY 2011 \$	Tentative Allocation FY 2012 \$	Additional to Complete After FY 2012 \$
Brazos Island Harbor, TX	Annual Allocations	5,008,000	1,786,000	478,000	538,000	726,000	726,000	754,000
Galveston District	ARRA Allocations			0				
	Total Allocations	5,008,000	1,786,000	478,000	538,000	726,000	726,000	754,000

The Brazos Island Harbor project provides deep draft access from the Gulf of Mexico through a jettied entrance channel to Brownsville, TX, a side channel, authorized to 36 feet, and shallow draft Fishing Boat Harbor near Port Isabel. The project is 22.8 miles in length. The authorized depths are 42 feet for the main channel and 44 feet through the jetties outer bar. The purpose of the study is navigation. The study consists of assessing the feasibility of enlarging the existing Brazos Island Harbor Channel by deepening the entrance channel, jetty channel, and the lower section of the main channel to 48 feet and the upper section of the main channel and turning basin to 45 feet. The study will also address increasing channel dimensions in order to serve offshore rigs presently operating in the U.S. Gulf Coast. Increased port traffic is a direct result of the North American Free Trade Agreement (NAFTA), as a majority of the increased traffic meets industrial needs in Mexico. The Port of Brownsville is the only U.S. deep draft port available to the industry along the U.S. – Mexico border. Port activities include offshore rig construction, ship repair and dismantling, steel fabrication, rail car rehabilitation, liquid petroleum gas storage/distribution, chemical and miscellaneous liquid, steel products and ore minerals offloading, and grain handling and storage. Total tonnage in the port increased from 1,829,000 tons in 1992 to 5,700,000 tons in 2008. Foreign imports, primarily in-transit cargo, have been the primary driver for growth, while domestic movements remain relatively constant. In 2008, the foreign trade increased 30.3 percent from the previous year. In 2002, 73 percent of inbound cargo was in-transit to Mexico. Iron ore, iron, and steel products, and other metal ores and products dominate the inbound foreign cargo. The study is located in the area of the Laguna Madre, a pristine aquatic and marine life habitat. The area also serves as a feeding and breeding area for colonial and migratory birds. In anticipation of project construction, authorization was received in the FY 2003 Consolidation Appropriations Act to credit work proposed to be accomplished by the Port of Brownsville for restoration of the Bahia Grande as wetland areas for mitigation against the non-Federal costs of deepening the channel, if it is determined to be integral to the project. The proposal would achieve improved flow and enhanced circulation associated with a wider and deeper channel. This would be especially beneficial with respect to tidal flow and circulation patterns for protected rookery island, and in San Martin Lake. The non-Federal Sponsor is the Port of Brownsville. The Feasibility Cost Share Agreement (FCSA) was executed in June 2006.

Fiscal Year 2011 funds are being used to identify the Recommended Plan. The funds requested for Fiscal Year 2012 will be used to complete the Draft Feasibility Report. The estimated cost of the feasibility phase is \$9,722,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of the study cost is as follows:

Total Estimated Study Cost	\$9,869,000
Reconnaissance Phase (Federal)	147,000
Feasibility Phase (Federal)	4,861,000
Feasibility Phase (Non-Federal)	4,861,000

The reconnaissance phase was completed in June 2006 with the execution of the Feasibility Cost Sharing Agreement. The completion date for the feasibility study is to be determined.

Study		Total Estimated Federal Cost \$	Allocation Prior to FY 2009 \$	Allocation FY 2009 \$	Allocation FY 2010 \$	Allocation FY 2011 \$	Tentative Allocation FY 2012 \$	Additional to Complete After FY 2012 \$
Gulf Intracoastal Waterway - High Island to Brazos River (Realignments), TX Galveston District	Annual Allocations	2,255,000	238,000	191,000	170,000	200,000	200,000	1,256,000
	ARRA Allocations			0				
	Total Allocations	2,255,000	238,000	191,000	170,000	200,000	200,000	1,256,000

The study area includes approximately 85 miles of the Gulf Intracoastal Waterway (GIWW) in Galveston and Brazoria Counties, from High Island, Texas, to the Brazos River. Tonnage transported along this section of the GIWW totaled nearly 59 million tons in 2007, with a commercial value exceeding 15 billion dollars and includes petrochemicals as the major commodity shipped. The GIWW High Island to Brazos reconnaissance study completed in February 1995 concluded that modifications to the existing GIWW were economically feasible from reduction in delay benefits. Investigations to identify potential solutions to resolve the navigation issues along this reach of the GIWW have been divided into two interim feasibility studies. The first interim feasibility report GIWW High Island to Brazos River, which was completed in April 2004, identified solutions to navigation problems at Sievers Cove and the Texas City Channel (West Wye). This work was authorized in section 1001(42) of the Water Resources Development Act of 2007. The second interim feasibility report will include evaluation of navigation improvements in negotiating two 90-degree bends near High Island (High Island Bends) associated with transit delays at Rollover Pass and developing long-range placement area plans; difficulties negotiating a double "S" curve near Freeport (Freeport Wiggles); and difficulties negotiating the intersection within the Chocolate Bayou Channel (Chocolate Bayou Wye). The GIWW is designated as part of the Nation's Inland Waterway System, and qualifies for 50-50 cost sharing from the Inland Waterways Trust Fund for construction of navigation improvements. An initial appraisal of the entire 423-mile Texas Section of the GIWW was completed in November 1989.

Fiscal Year 2011 funds are being used to conduct detailed economic, engineering, environmental, and plan formulation for the High Island Bends. The funds requested for Fiscal Year 2012 will be used to complete the feasibility study for the High Island Bends, and to conduct detailed economic, engineering, environmental, and plan formulation for Chocolate Bayou Wye and Freeport Wiggles.

The interim feasibility study for High Island Bends is scheduled for completion in September 2012. Completion dates for the interim feasibility studies, Chocolate Bayou Wye and Freeport Wiggles, are to be determined.

AQUATIC ECOSYSTEM RESTORATION

INVESTIGATIONS

Study		Total Estimated Federal Cost \$	Allocation Prior to FY 2009 \$	Allocation FY 2009 \$	Allocation FY 2010 \$	Allocation FY 2011 \$	Tentative Allocation FY 2012 \$	Additional to Complete After FY 2012 \$
Nueces River and Tributaries, TX	Annual Allocations	6,001,000	1,955,000	574,000	368,000	250,000	650,000	2,204,000
Fort Worth and Galveston Districts	ARRA Allocations			0				
	Total Allocations	6,001,000	1,955,000	574,000	368,000	250,000	650,000	2,204,000

The Nueces River basin, which lies in the southern part of Texas, has an overall length of approximately 235 miles, a maximum width of 115 miles, and a total drainage area of 17,075 square miles. The Nueces River flows in a southeasterly direction and enters Nueces Bay near Corpus Christi, Texas. The watershed includes portions of three major aquifers – the Edwards, Carrizo-Wilcox, and Gulf Coast. Poor land use practices, recent near-record droughts, and conflicting water resource management issues have resulted in significant environmental degradation. Limited freshwater inflows into the Nueces estuary system as a result of construction and operation of two upstream reservoirs have resulted in hyper-saline conditions that have severely diminished the habitat suitability of approximately 20,000 acres of the Nueces Delta. In addition, the lowering of water levels in the Edwards Aquifer due to drought conditions and water pumpage has reduced spring flows from the San Marcos and Comal Springs causing degradation of rare and unique habitats, which threatens the continued existence of seven endangered (E) and one threatened (T) species endemic to these habitats, including Fountain Darter, *Etheostoma fonticola* (E); Texas Blind Salamander, *Typhlomolge rathbuni* (E); San Marcos Gambusia, *Gambusia georgei* (E); Texas Wild Rice, *Zinania texana*(E); Comal Springs Riffle Beetle, *Heterelmis comalensis* (E); Comal Springs Dryopid Beetle, *Stygoparmus comalensis* (E); Peck’s Cave Amphipod, *Stygobromus pecki* (E); and San Marcos Salamander, *Eurycea nana* (T). The Edwards Aquifer, the major source of water for the City of San Antonio and Bexar County metropolitan areas, accounts for about 20 percent of the basin and is recognized as having high potential for groundwater recharge. During a Nueces River basin feasibility study workshop held on 10 June 2007, which was attended by over 50 individuals representing 20 Federal, state and local water and environmental resource agencies, all parties agreed that efforts to model the hydraulics and hydrology and the significant ecosystems of the Nueces watershed are extremely important, not only for the watershed study, but also for the region and Texas’ State Water Planning efforts, including development of environmental flow parameters for protection of riverine and bay and estuary aquatic ecosystems.

Potential solutions include modification of systems operations of Choke Canyon Reservoir and Lake Corpus Christi as well as augmentation of water supply to allow increased fresh-water to be passed through the system into the Nueces Delta; implementation of recharge structures to increase water levels in the Edwards Aquifer allowing for increased spring-flow to benefit sensitive spring habitats that support endemic threatened and endangered species; grading and structural modifications to existing impediments in the delta to help reestablish historical fresh and salt water marsh elevations; recontouring of altered river/delta bathymetry to help restore wetland and shallow water elevations; and placement of breakwaters to help protect the delta face from erosion losses caused by wave action. The study sponsors are the Nueces River Authority, San Antonio Water System, San Antonio River Authority, Guadalupe-Blanco River Authority and the City of Corpus Christi, Texas. The Feasibility Cost Sharing Agreement was signed on 24 September 2004.

Nueces River and Tributaries, TX (continued)

Fiscal Year 2011 funds are being used to complete the development of the mid and lower basins hydrologic and hydraulic models and continue work on the Nueces delta ecological models. The funds requested for Fiscal Year 2012 will be used to complete development of the hydro-dynamic and ecological model of the delta; complete modeling of the Leona Gravels area, and initiate development of the Feasibility Scoping Meeting (FSM) package, including an assessment of without project conditions. The estimated cost of the feasibility phase is \$11,602,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	\$11,802,000
Reconnaissance Phase (Federal)	200,000
Feasibility Phase (Federal)	5,801,000
Feasibility Phase (Non-Federal)	5,801,000

The completion date for the Nueces River and Tributaries, TX feasibility study is to be determined.

APPROPRIATION TITLE: Investigations, Fiscal Year 2012

Division: Southwestern

Study		Total Estimated Federal Cost	Allocation Prior to FY 2009	Allocation FY 2009	Allocation FY 2010	Allocation FY 2011	Tentative Allocation FY 2012	Additional to Complete After FY 2012
		\$	\$	\$	\$	\$	\$	\$
Sabine Pass to Galveston Bay, TX	Annual Allocations	6,164,000	2,629,000	382,000	170,000	200,000	200,000	2,583,000
Galveston District	ARRA Allocations			0				
	Total Allocations	6,164,000	2,629,000	382,000	170,000	200,000	200,000	2,583,000

The study area consists of approximately 90 miles of Gulf of Mexico shoreline in Jefferson, Chambers, and Galveston Counties along the upper Texas coast from Sabine Pass to San Luis Pass at the western end of Galveston Island. In the entire study area, over 200 houses and up to 40,000 people are affected by shore erosion. The major problems identified in the reach to the north of Galveston Bay are potential destruction of approximately 80,000 acres of nationally significant fresh and brackish water wetlands; damage to homes and commercial property; and significant damage to State Highway 87, caused by shoreline erosion. Interest has been expressed in a project to stabilize the shoreline to protect the nationally significant fresh and brackish water wetlands and other resources. The study area includes restoring or protecting the Piping Plover critical habitat and Kemp's Ridley sea turtle nesting habitat, both endangered species. Texas coast is critical to Central and Mississippi Flyways, bird migration routes. 50 percent of all US migratory birds depend on Texas wetlands and other coastal habitats. The area traverses 12 miles of the 81,700-acre McFaddin Marsh National Wildlife Refuge and approximately 2-1/2 miles of the 15,100-acre Sea Rim State Park. Sea Rim State Park is located in the easterly portion of the study area, approximately 10 miles west of Sabine Pass with McFaddin Marsh Refuge immediately to the west. Along the Galveston Island, Texas reach of the study area, erosion rates in excess of 8 feet per year are occurring beyond the limits of the seawall in Galveston, Texas. This erosion, if continued, will result in damages to several beach communities. It has been demonstrated that an economically feasible project could be developed as a result of studies completed in the mid-1980s for a Galveston Island Beach Erosion Study. A number of alternatives have been proposed, including beach nourishment and stone protection. After the passage of Hurricane Ike in September 2008, the study area was assessed and it was determined that the entire area was significantly altered both physically and economically. Due to the impacts of Hurricane Ike to the infrastructure along the Texas coast, the State of Texas has initiated steps to conduct a collaborative, comprehensive, and integrated analysis of the entire Texas Coast to develop a full range of flood damage reduction, coastal restoration, ecosystem restoration, and hurricane storm damage reduction measures (to include non-structural measures). The State of Texas established the Gulf Coast Community Protection and Recovery District (GCCPRD) to coordinate activities between Orange, Jefferson, Galveston, Harris, Chambers, and Brazoria Counties along the upper Texas coast. The non-Federal Sponsors for the project are Galveston and Jefferson Counties. The Feasibility Cost Sharing Agreement was executed on 6 September 2001.

Fiscal Year 2011 funds are being used to continue the feasibility phase of the study to include reanalysis of the "post Hurricane Ike" without project conditions, the geophysical investigations, the storm damages model and environmental baseline report. The funds requested for Fiscal Year 2012 will be used to continue the feasibility phase of the study. The estimated cost of the feasibility phase is \$12,158,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	\$ 12,243,000
Reconnaissance Phase (Federal)	85,000
Feasibility Phase (Federal)	6,079,000
Feasibility Phase (Non-Federal)	6,079,000

The feasibility study completion date is to be determined.

CONSTRUCTION

APPROPRIATION TITLE: Construction, General - Channels and Harbors (Ecosystem Restoration)

PROJECT: Houston-Galveston Navigation Channels, TX (Continuing)

LOCATION: The project is located in the Galveston Bay system in Harris and Galveston Counties, Texas.

DESCRIPTION: The total general navigation features of the project provides for a 45-foot project by enlarging the Houston Ship Channel to a depth of 45 feet and a width of 530 feet, and the Galveston Channel to a depth of 45 feet over a width which varies between 650 and 1112 feet, and deepening the entrance channel to the Galveston Harbor and Channel to 47 feet over its original 800-foot width and 10.5 mile length, and extending the channel an additional 3.9 miles to the 47-foot bottom contour in the Gulf of Mexico along the existing alignment. One hundred seventy two (172) acres of oyster cultch (118 acres for the Main Channel and 54 acres for the Barge Lanes) have been placed as a mitigation feature to provide substrate for oysters to grow. The ecosystem restoration features of the project include beneficial use of dredged material to construct 2,850 acres of marsh in Galveston Bay located at Bolivar (990 acres) and Atkinson Island (1,852 acres); and construction of a 6 acre Bird Island in Galveston Bay.

AUTHORIZATION: Water Resources Development Act (WRDA) of 1996. Energy and Water Development Appropriations Act, 2001, as enacted by Section 1(a)(2) of P.L. 106-377 (Barge lanes).

REMAINING BENEFIT- REMAINING COST RATIO: Houston Ship Channel: 4.3 to 1 at 7 percent; Galveston Harbor and Channel: 7.1 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: Entire project: 1.9 to 1 at 7 percent (Authorized Project with Barge Lanes); Galveston Harbor and Channel: 1.6 to 1 at 7 percent.

INITIAL BENEFIT-COST RATIO: Entire Project: 1.8 to 1 at 7 5/8 percent (FY 1996)

BASIS OF BENEFIT-COST RATIO: For the Houston Ship Channel, benefits and costs are from the Limited Reevaluation Report and Supplemental Environmental Statement dated May 1996. The Galveston Harbor and Channel benefits and costs are based on the Limited Reevaluation Report dated May 2007, approved June 2007.

SUMMARIZED FINANCIAL DATA			ACCUM. PCT. OF EST FED. COST	PHYSICAL STATUS (1 Jan 2011)	PERCENT COMPLETE	COMPLETION SCHEDULE
Estimated Appropriation Requirement (CoE)		621,463,000		Houston Ship Channel Const.	100 %	September 2005
Programmed Construction	621,463,000			Galveston Channel Const.	100 %	September 2011
Unprogrammed Construction	0			Ecosystem Restoration	64 %	To be Determined
				Entire Project	94 %	To be Determined
Estimated Appropriation Requirement (OFA)		7,203,000		PHYSICAL DATA – Total Project		
Programmed Construction	7,203,000			Channels:		
Unprogrammed Construction	0			Houston Ship Channel – 39.2 miles		
Estimated Appropriation Requirement		628,666,000		Galveston Channel – 3.8 miles		
Programmed Construction	628,666,000			Galveston Harbor Channel–14.4miles		
Unprogrammed Construction	0			Barge Lanes – 26 miles		
Future Non-Federal Reimbursement		47,333,000		Beneficial use of Dredged Material		
Programmed Construction	47,333,000			Marsh – 2,850 acres		
Unprogrammed Construction	0			Bird Nesting Island – 6 acres		
Estimated Federal Cost (Ultimate) (CoE)		574,130,000		Redfish Island – 6 acres		
Programmed Construction	574,130,000			Offshore Underwater Berm		
Unprogrammed Construction	0			Mitigation (Oyster Cultch)		
Estimated Non-Federal Cost		217,574,000		Main Channel – 118 acres		
Programmed Construction	217,574,000			Barge Lanes – 54 acres		
Cash Contributions	182,581,000					
Other Costs:						
Berthing Facilities	11,347,000					
Lands and Relocations	1,248,000					
Credit	22,398,000					
Unprogrammed Construction	0					
Cash Contributions	0					
Other Costs	0					
Total Estimated Programmed Construction Cost		846,240,000				
Total Estimated Unprogrammed Construction Cost		0				
Total Estimated Project Cost		846,240,000				

Division: Southwestern

District: Galveston

**Project: Houston-Galveston
Navigation Channels, Texas**

SUMMARIZED FINANCIAL DATA (Continued)

**ACCUM.
PCT. OF EST
FED. COST**

Allocations to 30 September 2008	382,463,000	
Allocation for FY 2009	29,244,000	
Allocation for FY 2010	242,000	
Recovery Act Allocations to Date	75,196,000	
President's Budget for FY 2011	0	
Allocation for FY 2011	0	
Allocations through FY 2011	487,145,000	78%
Budget for FY 2012	600,000	78%
Programmed Balance to Complete after FY 2012	133,718,000	
Unprogrammed Balance to Complete after FY 2012	0	

JUSTIFICATION: The ecosystem restoration features of the project include 2,850 acres of marsh at Bolivar and Atkinson Island, and construction of Bird Nesting Island (6 acres). The specific habitats to benefit from the restoration are bird nesting habitats, intertidal emergent wetlands, and oyster reef. The marsh habitats are critical to Galveston Bay ecosystem. As much as 30% (45,000 acres) of estuarine emergent wetlands in Galveston Bay have been lost due to subsidence and development. These features create a large corridor of intertidal marsh throughout the Bay, linking travel corridors for many species to include commercially important fish and provide habitat for migratory birds on Central and Mississippi Flyways. They also provide endangered brown pelican feeding/roosting/nesting areas; Kemp's Ridley sea turtle feeding areas; and Colonial waterbird feeding, nesting and migratory bird habitat. The project is designed to establish tidal prism and hydrological connection to the Bay for fully productive marsh creation. The marsh restoration rebuilds land and habitats lost to subsidence and sea level rise. Galveston Bay is a regionally significant area. Ecosystem Restoration costs for the project include the cost associated with the beneficial use of maintenance dredged material, and is cost shared 75 percent Federal and 25 percent non-Federal. The remaining marsh creation is to be linked to beneficial use of dredged material for continued maintenance of the Bay Reach of the Houston Ship Channel such that, a new marsh cell will be filled during each maintenance dredging contract.

FISCAL YEAR 2011: Not funded in FY 2011.

FISCAL YEAR 2012: Funds in the amount of \$600,000 will be used in FY 2012 as follows:

Complete Construction of Atkinson Island Marsh Cell M5/6	\$ 500,000
Construction Management	<u>100,000</u>
Total	\$ 600,000

Division: Southwestern

District: Galveston

**Project: Houston-Galveston
Navigation Channels, Texas**

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NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, as amended, the non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Annual Operation, Payments During Construction and Reimbursements	Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, right-of-ways, and borrow and excavated or dredged material disposal areas.	\$ 1,179,000	
Modify or relocate, utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	69,000	
Local service facilities necessary to realize benefits of the general navigation features	11,347,000	
Pay a percentage of the costs allocated to navigation improvements, to mitigate the project's adverse ecosystem impacts, and to pay a portion of the cost of operation, maintenance, and replacement of the project.	204,979,000	\$604,000
General Navigation Features - Deep Draft	\$118,266,000	
General Navigation Features - Shallow Draft	1,088,000	
Ecosystem Restoration	32,655,000	
Ecosystem Restoration - Deferred Construction	52,970,000	
Reimburse an additional 10 percent of the costs of general navigation features allocated to commercial navigation within a period of 30 year following completion of construction, as partially reduced by a credit allowed for the value of lands, easements, rights of way, relocations, and dredged or excavated material disposal areas provided for navigation.	47,333,000	
Total Non-Federal Costs	\$264,907,000	\$604,000

STATUS OF LOCAL COOPERATION: The Project Cooperation Agreement with the Port of Houston Authority was executed on 10 June 1998, and covered the Houston Ship Channel and the Entrance Channel segment of the Galveston Harbor and Channel. Houston and Harris County voters approved a \$130 million Port of Houston bond issued on 7 November 1989, by a 63 percent to 37 percent margin. The City of Galveston expressed their support for the total project by letters dated January 1987 and 30 October 1995. The Project Cooperation Agreement with the Port of Galveston was executed 21 June 2007.

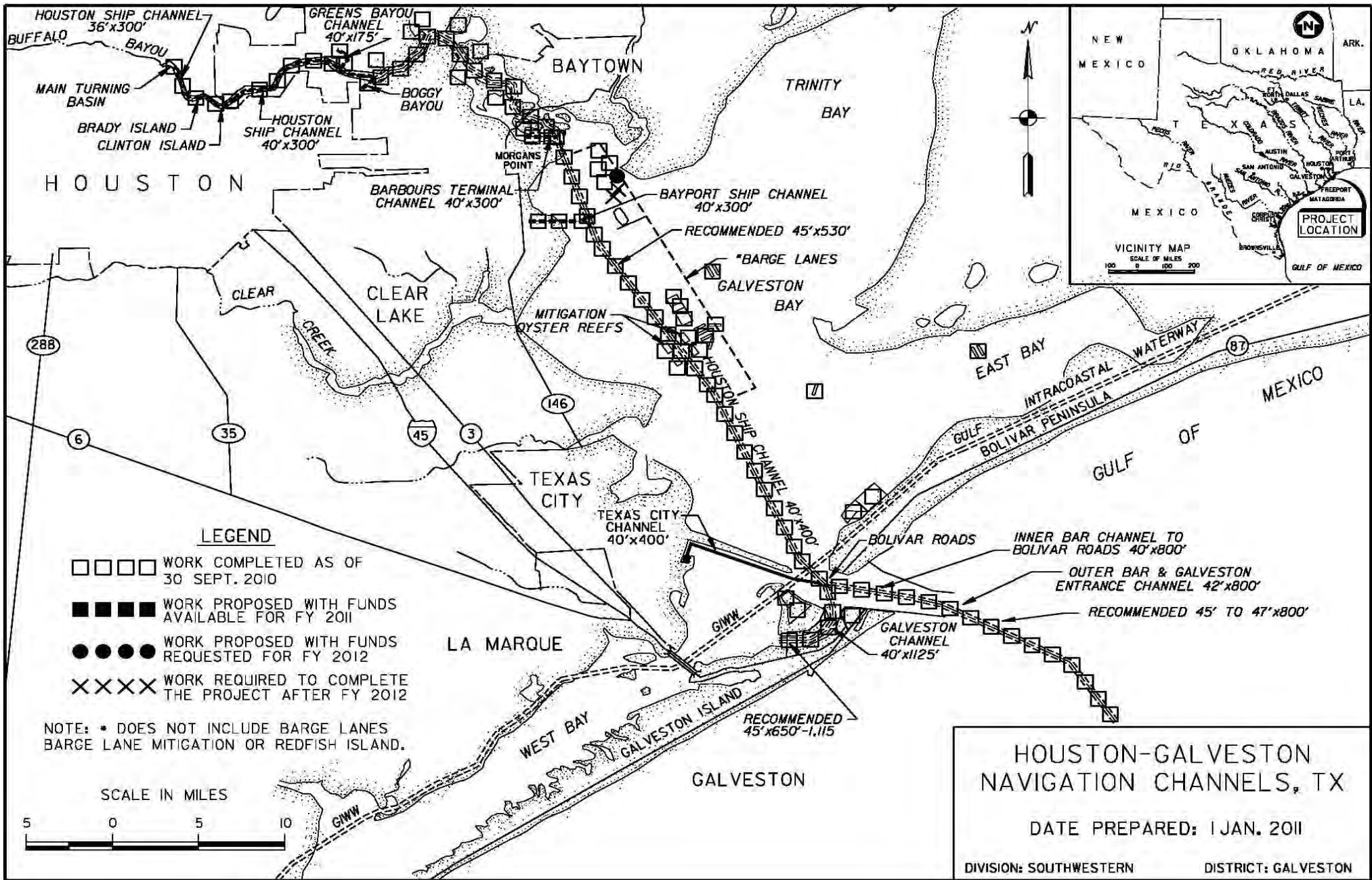
COMPARISON OF FEDERAL COST ESTIMATES: The current Federal (Corps of Engineers) costs estimate of \$621,463,000 is an increase of \$46,893,000 from the latest estimate (\$574,570,000) presented to Congress (FY 2009). This change includes the following items.

Item	Amount
Adjustment to Contract costs	\$ 53,740,000
Price de-Escalation on Construction Features	(-) 6,847,000
Total	\$ 46,893,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Final Environmental Impact Statement (FEIS) was filed with the Environmental Protection Agency in 25 November 1988. A supplement to the FEIS has been prepared and was listed in the Federal Register on 24 November 1995. A Post Authorization Change Report was completed and identified that 54 acres of oyster reef were impacted by the barge lanes construction and equal amounts of reef were constructed. An updated environmental analysis has been prepared as part of the Limited Reevaluation Report for the deepening of the Galveston Channel.

OTHER INFORMATION: The total project as authorized by WRDA 96 included channel deepening of the Galveston Entrance Channel, Galveston Harbor and Channel and the Houston Ship Channel to Boggy Bayou in Houston, Texas. Funds to initiate preconstruction engineering and design were appropriated in Fiscal Year 1990. Funds to initiate construction were appropriated in Fiscal Year 1998.

Section 902 of the WRDA 1986 limits cost growth to 20 percent of the authorized total project costs, plus adjustments for inflation. The section 902 project cap for the Houston-Galveston Navigation Channels is currently estimated to be \$709,000,000. Additional authorization will be required to increase the section 902 project cap prior to completion of all features of the project.



Division: Southwestern

District: Galveston

Project: Houston-Galveston Navigation Channels, Texas

14 February 2011

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OPERATION AND MAINTENANCE

Key to Abbreviations:

N = Navigation

FRM = Flood Risk Management

REC = Recreation

HYD = Hydropower

ES = Environmental Stewardship

WS = Water Supply

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Aquilla Lake, TX

AUTHORIZATION: Flood Control Act of 1968

LOCATION AND DESCRIPTION: Aquilla Lake is located in Hill County, 0.8 miles southwest of Hillsboro, Texas. The project consists of an earthfill dam and uncontrolled concrete spillway, which creates a lake with total storage capacity of 146,500 acre-feet, flood control of 93,600 acre-feet, water supply of 34,100 acre-feet, and sediment reserve of 25,700 acre-feet. There is one undeveloped recreation area of 957 acres and six access areas totaling 27 acres. 2010 visitation totaled 328,297 visitor hours.

RECOVERY ACT ALLOCATIONS TO DATE: \$464,000

PRESIDENT'S BUDGET FOR FY 2011: \$1,120,000

BUDGET FOR FY 2012: M: \$394,000 O: \$687,000 T: \$1,081,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$844,000 - Funds will be used to operate and maintain dams, levees, and other flood risk reduction facilities.

REC: \$128,000 – Funds will be used to operate and maintain parks and other public use areas.

HYD: N/A

ES: \$83,000 - Funds will be used to identify, maintain, and protect natural and cultural resources.

WS: \$26,000 - Funds will be used to monitor water usage; manage current water storage agreements; and track water storage contract billing and payments.

OTHER INFORMATION: None.

Division: SWD District: SWF

Project Name: Aquilla Lake, TX

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Arcadia Lake, OK

AUTHORIZATION: Flood Control Act of 1970

LOCATION AND DESCRIPTION: Arcadia Lake is located on the Deep Fork River at river mile 218.3, in the metropolitan area of Oklahoma City and Edmond in Oklahoma County, Oklahoma. This is a multi-purpose project with flood control, water supply, and recreation outputs. The project consists of a 5,250 foot long rolled earth-filled embankment with an uncontrolled saddle spillway and 7x10 foot conduit controlled by two conduit gates. At conservation pool the lake covers 1,820 acres.

RECOVERY ACT ALLOCATIONS TO DATE: \$508,000

PRESIDENT'S BUDGET FOR FY 2011: \$596,000

BUDGET FOR FY 2012: M: \$128,000 O: \$463,000 T: \$591,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$520,000 - Funds will be used for routine operations, maintenance, and inspections on structures that reduce flood risk to property and human life, including preventative, routine, and limited breakdown maintenance; operation and inspection of structures to insure projects are performing as designed; and collection of dam safety data.

REC: \$37,000 - Funds will be used for routine operations and maintenance activities related to recreation, including ranger patrols; mowing and other service contracts to maintain park and camping areas; utilities; and breakdown maintenance.

HYD: N/A

ES: \$10,000 - Funds will be used for routine environmental compliance activities, including monitoring of threatened and endangered species; protection of significant cultural resources; water quality monitoring; natural resources management; invasive species control; public education programs; and NEPA compliance activities.

WS: \$24,000 – Funds will be used to monitor water usage; manage current water storage agreements; and track water storage contract billing and payments.

OTHER INFORMATION: None.

Division: SWD District: SWT Project Name: Arcadia Lake, OK

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Arkansas-Red River Basins Chloride Control – Area VIII, TX

AUTHORIZATION: Flood Control Act of 1966 as modified by the Flood Control Act of 1970 and as amended by the Water Resources Development Acts of 1974, 1976, and 1986

LOCATION AND DESCRIPTION: The Arkansas-Red River Basins Chloride Control – Area VIII Project is located within the Wichita River basin in northern Texas. This is a single purpose project with water quality control outputs. The project consists of a low flow collection dam on the South Fork of the Wichita River and the Truscott Brine Lake on the North Fork of the Wichita River.

RECOVERY ACT ALLOCATIONS TO DATE: \$5,240,000

PRESIDENT'S BUDGET FOR FY 2011: \$1,439,000

BUDGET FOR FY 2012: M: \$0 O: \$1,593,000 T: \$1,593,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: N/A

REC: N/A

HYD: N/A

ES: \$1,593,000 – Funds will be used for routine operations and maintenance at the project; water quality control; intensive wildlife management as required by WRDA 1986; monitoring of endangered and other fish and wildlife species; compliance activities associated with the National Historic Preservation Act; natural resources management; and water quality monitoring.

WS: N/A

OTHER INFORMATION: None.

Division: SWD District: SWT Project Name: Arkansas-Red River Basins Chloride Control –
Area VIII, TX

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Bardwell Lake, TX

AUTHORIZATION: PL 96-399

LOCATION AND DESCRIPTION: The project consists of an earthfill dam, and uncontrolled spillway, and a gated conduit through the dam, with two sluice gates. Flood control storage capacity is 85,400 acre-feet. Seven recreation areas comprise 1,238 acres. 2010 visitation totaled 549,056 visitor hours.

RECOVERY ACT ALLOCATIONS TO DATE: \$2,646,000

PRESIDENT'S BUDGET FOR FY 2011: \$1,879,000

BUDGET FOR FY 2012: M: \$576,000 O: \$1,285,000 T: \$1,861,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$1,095,000 - Funds will be used to operate and maintain dams, levees, and other flood risk reduction facilities.

REC: \$657,000 - Funds will be used to operate and maintain parks and other public use areas.

HYD: N/A

ES: \$82,000 - Funds will be used to identify, maintain, and protect natural and cultural resources.

WS: \$27,000 - Funds will be used to monitor water usage; manage current water storage agreements; and track water storage contract billing and payments.

OTHER INFORMATION: None.

Division: SWD

District: SWF

Project Name: Bardwell Lake, TX

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Bayport Ship Channel, TX

AUTHORIZATION: PL 99-662

LOCATION AND DESCRIPTION: The project is located in the vicinities of Houston, Pasadena, La Porte, and Shore Acres in Harris County, Texas. The Bayport Ship Channel and Turning Basin is a 4.5 mile long deep draft waterway that extends from the Houston Ship Channel at Mile 20.5 west across Galveston Bay.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

PRESIDENT'S BUDGET FOR FY 2011: \$4,028,000

BUDGET FOR FY 2012: M: \$3,776,000 O: \$0 T: \$3,776,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$3,776,000 – Funding provides for maintenance dredging of the Bayport Channel Flare to project depth. These funds would improve navigation performance and reliability and would provide for 6 months level of service at the authorized project depth.

FRM: N/A

REC: N/A

HYD: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None.

Division: SWD District: SWG Project Name: Bayport Ship Channel, TX

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Beaver Lake, AR

AUTHORIZATION: Flood Control Act of 1938 and the Water Supply Act of 1958

LOCATION AND DESCRIPTION: The project is located in Benton, Carroll and Washington Counties of Arkansas. Beaver Lake is a multiple-purpose project located in the White River Basin. The project contains two 56,000 kW hydropower generator units.

RECOVERY ACT ALLOCATIONS TO DATE: \$2,628,000

PRESIDENT'S BUDGET FOR FY 2011: \$10,570,000

BUDGET FOR FY 2012: M: \$775,000 **O:** \$5,009,000 **T:** \$5,784,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$1,089,000 – Funds will be used for routine operations and maintenance for flood risk management; bridge and dam safety inspections; routine joint operations and maintenance of the powerplant and dam components; and perform encroachment resolutions. These funds would improve flood risk management performance by reducing the risk of failure, flooding, loss of life and environmental damage, provide increased efficiency, and lower future repair costs.

REC: \$2,760,000 – Funds will be used for routine operations and maintenance for recreation; implementation of law enforcement agreements; perform water management analysis (control and quality); real estate management; and environmental compliance.

HYD: \$1,476,000 – Funds will be used for routine operations and maintenance for hydropower generations and powerplant equipment; routine operations and maintenance of joint operations of powerplant and dam components; encroachment resolutions; and compliance with NERC/FERC reliability standards. These funds would improve hydropower performance by increasing unit availability, thus reducing long-term forced outages, and would provide for additional revenue to the Treasury.

ES: \$443,000 – Funds will be used for routine operations and maintenance for environmental stewardship; meet mandates of the National Historic Preservation Act; comply with the Endangered Species Act; implementation for management of boat docks and vegetation modification shoreline use permits.

WS: \$16,000 – Funds will be used to monitor water usage; manage current water storage agreements; and track water storage contract billing and payments.

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Belton Lake, TX

AUTHORIZATION: Flood Control Act of 1946 as modified by the Flood Control Act of 1954

LOCATION AND DESCRIPTION: Belton Lake is located on the Leon River in Bell and Coryell Counties near the city of Belton, Texas. The project consists of an earthfill dam, uncontrolled spillway, gated outlet structure, and flood control for 3,560 square miles of the Brazos River Basin. There are 644,200 acre-feet of flood control storage, 136 miles of shoreline and a boundary of 158 miles. Fourteen recreation areas comprise 2,983 acres. 2010 visitation totaled 8,855,647 visitor hours.

RECOVERY ACT ALLOCATIONS TO DATE: \$15,608,000

PRESIDENT'S BUDGET FOR FY 2011: \$3,682,000

BUDGET FOR FY 2012: M: \$599,000 O: \$2,917,000 T: \$3,516,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$1,277,000 - Funds will be used to operate and maintain dams, levees, and other flood risk reduction facilities. District dam safety required to repair/replace emergency bulkhead roller chains and repair badly corroded bulkheads.

REC: \$1,956,000 - Funds will be used to operate and maintain parks and other public use areas.

HYD: N/A

ES: \$260,000 - Funds will be used to identify, maintain, and protect natural and cultural resources.

WS: \$23,000 - Funds will be used to monitor water usage; manage current water storage agreements; and track water storage contract billing and payments.

OTHER INFORMATION: None.

Division: SWD District: SWF

Project Name: Belton Lake, TX

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Benbrook Lake, TX

AUTHORIZATION: River and Harbor Act of 1945

LOCATION AND DESCRIPTION: Benbrook Lake is located in Tarrant County on the Clear Fork of the Trinity River, 15 river miles upstream from its confluence with the West Fork of the Trinity River, 10 miles southwest of Fort Worth, Texas. The project consists of a rolled earth fill dam (9,130 feet long x 130 feet high); an uncontrolled spillway (500 feet wide); a 13-foot diameter conduit controlled by two (6.5 feet x 13 feet) broom-type gates for inlets; and, 2 gated outlets into two 30-inch steel pipe conduits. The flood control storage capacity is 170,350 acre-feet. Benbrook Lake has six recreation areas which comprise 3,033 acres. 2010 visitation totaled 2,866,449 visitor hours.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

PRESIDENT'S BUDGET FOR FY 2011: \$2,578,000

BUDGET FOR FY 2012: M: \$532,000 O: \$1,932,000 T: \$2,464,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$940,000 - Funds will be used to operate and maintain dams, levees, and other flood risk reduction facilities. Purchase emergency generator to replace aged generator.

REC: \$1,340,000 - Funds will be used to operate and maintain parks and other public use areas.

HYD: N/A

ES: \$153,000 - Funds will be used to identify, maintain, and protect natural and cultural resources.

WS: \$31,000 - Funds will be used to monitor water usage; manage current water storage agreements; and track water storage contract billing and payments.

OTHER INFORMATION: None.

Division: SWD

District: SWF

Project Name: Benbrook Lake, TX

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Birch Lake, OK

AUTHORIZATION: Flood Control Act of 1962

LOCATION AND DESCRIPTION: Birch Lake is located at river mile 0.8 on Birch Creek, a tributary of Bird Creek, about 1.5 miles south of the town of Barnsdall in Osage County, Oklahoma. This is a multi-purpose project with flood control, water supply, water quality control, recreation, and fish and wildlife outputs. The project consists of a 3193 foot long rolled earth-filled embankment with an uncontrolled spillway and 7.5x10 foot conduit controlled by two slide gates. At conservation pool the lake covers 1137 acres.

RECOVERY ACT ALLOCATIONS TO DATE: \$591,000

PRESIDENT'S BUDGET FOR FY 2011: \$646,000

BUDGET FOR FY 2012: M: \$419,000 O: \$568,000 T: \$987,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$746,000 - Funds will be used for routine operations, maintenance, and inspections on structures that reduce flood risk to property and human life, including preventative, routine, and limited breakdown maintenance; operation and inspection of structures to insure projects are performing as designed; and collection of dam safety data.

REC: \$209,000 - Funds will be used for routine operations and maintenance activities related to recreation, including ranger patrols; mowing and other service contracts to maintain park and camping areas; utilities; and breakdown maintenance.

HYD: N/A

ES: \$32,000 - Funds will be used for routine environmental compliance activities, including monitoring of threatened and endangered species; protection of significant cultural resources; water quality monitoring; natural resources management; invasive species control; public education programs; and NEPA compliance activities.

WS: N/A

OTHER INFORMATION: None.

Division: SWD District: SWT Project Name: Birch Lake, OK

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Blue Mountain Lake, AR

AUTHORIZATION: Flood Control Act of 1938

LOCATION AND DESCRIPTION: The project is located in Logan and Yell Counties of Arkansas. Blue Mountain Lake is located in the Arkansas River Basin on the Petit Jean River, near Waveland, Arkansas. The primary purpose of the project is flood damage reduction.

RECOVERY ACT ALLOCATIONS TO DATE: \$362,000

PRESIDENT'S BUDGET FOR FY 2011: \$1,612,000

BUDGET FOR FY 2012: M: \$446,000 **O:** \$1,408,000 **T:** \$1,854,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$1,317,000 – Funds will be used for routine operations and maintenance for flood risk management; essential inspection and maintenance of FRM structures and equipment; routine operation of dam, reservoir, service facilities and permanent operating equipment; periodic inspection of vehicle bridges; maintenance of tractor slide gates, hoists, overhead crane and emergency generator. These funds would improve flood risk management performance by reducing the risk of failure, flooding, loss of life and environmental damage, and providing for increased efficiency and lower future repair costs.

REC: \$416,000 – Funds will be used for routine operations and maintenance for recreation; implementation of law enforcement agreements; perform water management analysis (control and quality); real estate management; and environmental compliance.

HYD: N/A

ES: \$117,000 – Funds will be used for routine operations and maintenance for environmental stewardship; sustain existing forest, fish, wildlife and other natural resources; ensure historical, archeological and cultural resources are protected from vandalism; meet mandates of the National Historic Preservation Act; and comply with the Endangered Species Act.

WS: \$4,000 – Funds will be used to monitor water usage; manage current water storage agreements; and track water storage contract billing and payments.

OTHER INFORMATION: None.

Division: SWD

District: SWL

Project Name: Blue Mountain Lake, AR

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Brazos Island Harbor, TX

AUTHORIZATION: RHC Doc. 16, 71st Congress, 2nd Session, 1930, as amended and Sec. 201, PL 99-662

LOCATION AND DESCRIPTION: The Brazos Island Harbor project provides deep draft access from the Gulf of Mexico through a jettied entrance channel to Brownsville, and a side channel, authorized to 36 feet, and shallow draft Fishing Boat Harbor near Port Isabel. The project is 22.8 miles in length. The authorized depths are 42 feet for the main channel and 44 feet through the jetties and outer bar.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

PRESIDENT'S BUDGET FOR FY 2011: \$3,468,000

BUDGET FOR FY 2012: M: \$3,378,000 O: \$500,000 T: \$3,878,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$3,878,000 – Funding provides for routine annual dredging of the Brazos Island Harbor Jetty Channel to authorized project depth. These funds would improve navigation performance and reliability.

FRM: N/A

REC: N/A

HYD: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None.

Division: SWD District: SWG Project Name: Brazos Island Harbor, TX

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Broken Bow Lake, OK

AUTHORIZATION: Flood Control Act of 1958

LOCATION AND DESCRIPTION: Broken Bow Lake is located on the Mountain Fork River, a tributary of the Little River, at river mile 20.3, approximately 9 miles northeast of the town of Broken Bow in McCurtain County, Oklahoma. This is a multi-purpose project with flood control, hydroelectric power, water supply, recreation, and fish and wildlife outputs. The project consists of a 2,750 foot long rolled earth-filled embankment with a concrete ogee weir controlled spillway and two 50,000 kW generators. At conservation pool the lake covers 14,200 acres.

RECOVERY ACT ALLOCATIONS TO DATE: \$2,278,000

PRESIDENT'S BUDGET FOR FY 2011: \$2,458,000

BUDGET FOR FY 2012: M: \$996,000 O: \$1,062,000 T: \$2,058,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$457,000 - Funds will be used for routine operations, maintenance, and inspections on structures that reduce flood risk to property and human life, including preventative, routine, and limited breakdown maintenance; operation and inspection of structures to insure projects are performing as designed; and collection of dam safety data.

REC: \$215,000 - Funds will be used for routine operations and maintenance activities related to recreation, including ranger patrols; mowing and other service contracts to maintain park and camping areas; utilities; and limited breakdown maintenance.

HYD: \$1,337,000 - Funds will be used for routine operations and maintenance activities required to keep the powerhouse and associated equipment operating efficiently, including operation of generating units and auxiliary equipment; performing preventative, routine, and limited breakdown maintenance on equipment; and inspecting equipment for suitability of service.

ES: \$44,000 - Funds will be used for routine environmental compliance activities, including monitoring of threatened and endangered species; protection of significant cultural resources; water quality monitoring; natural resources management; invasive species control; public education programs; and NEPA compliance activities.

WS: \$5,000 - Funds will be used to monitor water usage; manage current water storage agreements; and track water storage contract billing and payments.

OTHER INFORMATION: None.

Division: SWD District: SWT Project Name: Broken Bow Lake, OK

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Buffalo Bayou and Tributaries, TX

AUTHORIZATION: House Document 456, 75th Congress, 2nd Session 1938 and modified by the Flood Control Act of 1954

LOCATION AND DESCRIPTION: The project is located on Buffalo Bayou and Mayde Creek on the west side of the City of Houston, in Harris and Fort Bend Counties, Texas. Addicks Dam and Reservoir is an earthen dam 61,166 feet long and 48.5 feet above the Mayde Creek streambed with a storage capacity of 200,840 acre-feet. Barker Dam and Reservoir is an earthen dam 71,960 feet long and 36.5 feet above the Buffalo Bayou streambed with a storage capacity of 209,000 acre-feet. These reservoirs are designed to reduce flooding in the City of Houston.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

PRESIDENT'S BUDGET FOR FY 2011: \$3,518,000

BUDGET FOR FY 2012: M: \$1,356,000 O: \$2,314,000 T: \$3,670,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$3,670,000 – Activities include labor (district and field) and non-labor (field) costs for operating the project, implementing the stream gauging program and water control bill-back programs. The funds will also be used for Dam Safety annual instrumentation report, training, meetings, periodic assessment, emergency training exercise, update flood damage prevention model, downstream study of flood damage curves, H&H survey of Bear Creek, H&H sediment surveys, and vehicle barrier at toe of dams. Activities for basic maintenance include replace flex base material on top of dams phase 2.

REC: N/A

HYD: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None.

Division: SWD District: SWG Project Name: Buffalo Bayou and Tributaries, TX

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Bull Shoals Lake, AR

AUTHORIZATION: Flood Control Act of 1938

LOCATION AND DESCRIPTION: Bull Shoals Lake is located in Marion, Baxter and Boone Counties of Arkansas and Ozark and Taney Counties of Missouri. Bull Shoals is a multi-purpose project with functional capabilities for hydropower and flood risk management. The project contains eight hydropower generating units with a total installed capacity of 340,000 kW.

RECOVERY ACT ALLOCATIONS TO DATE: \$5,902,000

PRESIDENT'S BUDGET FOR FY 2011: \$7,292,000

BUDGET FOR FY 2012: M: \$1,370,000 **O:** \$4,680,000 **T:** \$6,050,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$1,729,000 – Funds will be used for routine operations and maintenance for flood risk management to include maintenance of structures and equipment and operation of dam, reservoir, service facilities and permanent operating equipment; maintenance of 17 tainter gates, sluice gates, overhead crane and emergency generator. These funds would improve flood risk management performance by reducing the risk of failure, flooding, loss of life and environmental damage, and providing for increased efficiency and lower future repair costs.

REC: \$1,653,000 – Funds will be used for routine operations and maintenance for recreation; implementation of law enforcement agreements; perform water management analysis (control and quality); real estate management; environmental compliance; and water management of water control data systems.

HYD: \$2,338,000 – Funds will be used for routine operations and maintenance for hydropower generations and powerplant equipment; routine operations and maintenance of joint operations of powerplant and dam components; encroachment resolutions; compliance with NERC/FERC reliability standards; and providing an oil containment structure for the powerplant. These funds would improve hydropower performance by increasing unit availability, thus reducing long-term forced outages, and would provide for additional revenue to the Treasury.

ES: \$325,000 – Funds will be used for routine operations and maintenance for environmental stewardship; provide protection, monitoring and management of project natural resources; comply with the Endangered Species Act; comply with the statutory mandates of the Forest Cover Act; development of resource management plans; and compliance with the Archeological Resources Protection Act.

WS: \$5,000 – Funds will be used to monitor water usage; manage current water storage agreements; and track water storage contract billing and payments.

OTHER INFORMATION: None.

Division: SWD

District: SWL

Project Name: Bull Shoals Lake, AR

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Canton Lake, OK

AUTHORIZATION: Flood Control Acts of 1938, 1946, and 1948 and Water Resources Development Act of 1990

LOCATION AND DESCRIPTION: Canton Lake is located on the North Canadian River at river mile 394.3, about 2 miles north of the town of Canton in Blaine County, Oklahoma. This is a multi-purpose project with flood control, water supply, and irrigation outputs. The project consists of a 15,140 foot long rolled earth-filled embankment with a 640 foot gated concrete spillway that rises to a maximum height of 68 feet. Spillway discharges are controlled by sixteen 40x25 foot tainter gates. At conservation pool the lake covers 7,910 acres.

RECOVERY ACT ALLOCATIONS TO DATE: \$987,000

PRESIDENT'S BUDGET FOR FY 2011: \$1,949,000

BUDGET FOR FY 2012: M: \$2,277,000 O: \$1,625,000 T: \$3,902,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$2,784,000 - Funds will be used for routine operations, maintenance, and inspections on structures that reduce flood risk to property and human life, including preventative, routine, and limited breakdown maintenance; operation and inspection of structures to insure projects are performing as designed; and collection of dam safety data.

REC: \$986,000 - Funds will be used for routine operations and maintenance activities related to recreation, including ranger patrols; mowing and other service contracts to maintain park and camping areas; utilities; and breakdown maintenance.

HYD: N/A

ES: \$95,000 - Funds will be used for routine environmental compliance activities, including monitoring of threatened and endangered species; protection of significant cultural resources; water quality monitoring; natural resources management; invasive species control; public education programs; and NEPA compliance activities.

WS: \$37,000 - Funds will be used to monitor water usage; manage current water storage agreements; and track water storage contract billing and payments.

OTHER INFORMATION: None.

Division: SWD District: SWT Project Name: Canton Lake, OK

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Canyon Lake, TX

AUTHORIZATION: River and Harbor Act of 1945 as modified by the Flood Control Act of 1954

LOCATION AND DESCRIPTION: Canyon Lake is located in Comal County, 12 miles northwest of New Braunfels, Texas, on the Guadalupe River. The project consists of a rolled earthfill dam, an uncontrolled spillway and one conduit controlled by two slide gates. The flood control storage is 354,600 acre-feet. Eight recreation areas comprise 1,544 acres. 2010 visitation totaled 2,546,657 visitor hours.

RECOVERY ACT ALLOCATIONS TO DATE: \$3,581,000

PRESIDENT'S BUDGET FOR FY 2011: \$3,429,000

BUDGET FOR FY 2012: M: \$701,000 O: \$2,879,000 \$3,580,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$1,653,000 - Funds will be used to operate and maintain dams, levees, and other flood risk reduction facilities; and, repair service bridge and expansion shoes.

REC: \$1,656,000 - Funds will be used to operate and maintain parks and other public use areas.

HYD: N/A

ES: \$231,000 - Funds will be used to identify, maintain, and protect natural and cultural resources.

WS: \$40,000 - Funds will be used to monitor water usage; manage current water storage agreements; and track water storage contract billing and payments.

OTHER INFORMATION: None.

Division: SWD District: SWF

Project Name: Canyon Lake, TX

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Cedar Bayou, TX

AUTHORIZATION: Senate Doc 107, 71st Congress, 2nd Session

LOCATION AND DESCRIPTION: This shallow draft channel is an important navigation channel adjacent to the Houston and Bayport Ship Channels. It supports heavy barge traffic to facilities owned by Koppel Steel, Gendal United Steel and Bayer Corp.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

PRESIDENT'S BUDGET FOR FY 2011: \$1,695,000

BUDGET FOR FY 2012: M: \$350,000 O: \$0 T: \$350,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$350,000 – Activities include the completion of the Dredge Material Management Plan (DMMP) on the existing and new upland placement areas and new beneficial use sites to increase disposal capacity in anticipation of future dredging.

FRM: N/A

REC: N/A

HYD: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: A Dredge Material Management Plan needs to be developed and new placement areas (PAs) and beneficial use sites (BUs) created in preparation for future channel maintenance.

Division: SWD District: SWG Project Name: Cedar Bayou, TX

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Chocolate Bayou, TX

AUTHORIZATION: House Doc. 217, 89th Cong., 1st Sess.

LOCATION AND DESCRIPTION: This navigation project is located between Galveston and Freeport in Brazoria County, Texas. The project provides a shallow draft channel from the Gulf Intracoastal Waterway at Mile 376 through Chocolate Bay and Chocolate Bayou to a point 8.2 miles north of the Gulf Intracoastal Waterway. The project dimensions are 12 x 125 feet.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

PRESIDENT'S BUDGET FOR FY 2011: \$0

BUDGET FOR FY 2012: M: \$500,000 O: \$0 T: \$500,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR (by Business Line) FY 2012:

N: \$500,000 – Activities include dredge fill monitoring and surveying of settlement in beneficial use areas. These funds would improve navigation performance and reliability.

FRM: NA

REC: NA

HYD: NA

ES: NA

WS: NA

OTHER INFORMATION: None.

Division: SWD District: SWG Project Name: Chocolate Bayou, TX

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Clearwater Lake, MO

AUTHORIZATION: Flood Control Act of 1938

LOCATION AND DESCRIPTION: Clearwater Lake is located near Piedmont, Missouri, in Reynolds and Wayne Counties. The primary purpose is flood damage reduction but the project also provides environmental and recreation outputs.

RECOVERY ACT ALLOCATIONS TO DATE: \$946,000

PRESIDENT'S BUDGET FOR FY 2011: \$3,021,000

BUDGET FOR FY 2012: M: \$953,000 **O:** \$2,335,000 **T:** \$3,288,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$2,177,000 – Funds will be used for routine operations and maintenance for flood risk management; essential inspection and maintenance of FRM structures and equipment; routine operation of dam, reservoir, service facilities and permanent operating equipment; periodic inspection of vehicle bridges; maintenance of tractor slide gates, hoists, overhead crane and emergency generator. These funds would improve flood risk management performance by reducing the risk of failure, flooding, loss of life and environmental damage, and providing for increased efficiency and lower future repair costs.

REC: \$982,000 – Funds will be used for routine operations and maintenance for recreation; implementation of law enforcement agreements; perform water management analysis (control and quality); real estate management; environmental compliance; and water management of water control data systems.

HYD: N/A

ES: \$129,000 – Funds will be used for routine operations and maintenance for environmental stewardship; monitoring and management of endangered species; support for GIS; specialized habitat management; and to ensure historical, archeological and cultural resources are protected.

WS: N/A

OTHER INFORMATION: None.

Division: SWD

District: SWL

Project Name: Clearwater Lake, MO

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Copan Lake, OK

AUTHORIZATION: Flood Control Act of 1962

LOCATION AND DESCRIPTION: Copan Lake is located at river mile 7.4 on the Little Caney River, a tributary of the Caney River, about 9 miles north of the town of Bartlesville in Washington County, Oklahoma. This is a multi-purpose project with flood control, water supply, water quality control, recreation, and fish and wildlife outputs. The project consists of a 7730 foot long rolled earth-filled embankment with a gate controlled, concrete, gravity ogee weir with four 50x35 foot tainter gates. At conservation pool the lake covers 4449 acres.

RECOVERY ACT ALLOCATIONS TO DATE: \$535,000

PRESIDENT'S BUDGET FOR FY 2011: \$1,104,000

BUDGET FOR FY 2012: M: \$555,000 O: \$865,000 T: \$ 1,420,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$1,127,000 - Funds will be used for routine operations, maintenance, and inspections on structures that reduce flood risk to property and human life, including preventative, routine, and limited breakdown maintenance; operation and inspection of structures to insure projects are performing as designed; and collection of dam safety data.

REC: \$253,000 - Funds will be used for routine operations and maintenance activities related to recreation, including ranger patrols; mowing and other service contracts to maintain park and camping areas; utilities; and breakdown maintenance.

HYD: N/A

ES: \$35,000 - Funds will be used for routine environmental compliance activities, including monitoring of threatened and endangered species; protection of significant cultural resources; water quality monitoring; natural resources management; invasive species control; public education programs; and NEPA compliance activities.

WS: \$5,000 - Funds will be used to monitor water usage; manage current water storage agreements; and track water storage contract billing and payments.

OTHER INFORMATION: None.

Division: SWD District: SWT Project Name: Copan Lake, OK

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Corpus Christi Ship Channel, TX

AUTHORIZATION: Senate Document 99, 90th Congress, 2nd Session

LOCATION AND DESCRIPTION: The Corpus Christi Ship Channel (CCSC) is a 45-ft deep channel that extends from the Gulf of Mexico 34 miles into the Port of Corpus Christi. The Port of Corpus Christi is ranked 5th in the nation for tonnage shipped. The CCSC is utilized by both commercial and recreational traffic – oil tankers, barges, and private fishing and recreational vessels.

RECOVERY ACT ALLOCATIONS TO DATE: \$5,043,000

PRESIDENT'S BUDGET FOR FY 2011: \$ 4,608,000

BUDGET FOR FY 2012: M: \$5,912,000 **O:** \$0 **T:** \$5,912,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$5,912,000 – Activities include dredging Entrance / Jetty Channel to authorized depth which will improve navigation performance and reliability.

FRM: N/A

REC: N/A

HYD: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None.

Division: SWD District: SWG Project Name: Corpus Christi Ship Channel, TX

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Council Grove Lake, KS

AUTHORIZATION: Flood Control Act of 1950

LOCATION AND DESCRIPTION: Council Grove Lake is located on the Grand (Neosho) River at river mile 449.5, 1.5 miles northwest of Council Grove in Morris County, Kansas. This is a multi-purpose project with flood control, water supply, water quality control, and recreation outputs. The project is a 6,500 foot long earth embankment with an uncontrolled spillway. At conservation pool the lake covers 3,259 acres.

RECOVERY ACT ALLOCATIONS TO DATE: \$1,261,000

PRESIDENT'S BUDGET FOR FY 2011: \$1,649,000

BUDGET FOR FY 2012: M: \$863,000 O: \$1,574,000 T: \$2,437,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$1,819,000 - Funds will be used for routine operations, maintenance, and inspections on structures that reduce flood risk to property and human life, including preventative, routine, and limited breakdown maintenance; operation and inspection of structures to insure projects are performing as designed; and collection of dam safety data.

REC: \$554,000 - Funds will be used for routine operations and maintenance activities related to recreation, including ranger patrols; mowing and other service contracts to maintain park and camping areas; utilities; and break-down maintenance.

HYD: N/A

ES: \$54,000 - Funds will be used for routine environmental compliance activities, including monitoring of threatened and endangered species; protection of significant cultural resources; water quality monitoring; natural resources management; invasive species control; public education programs; and NEPA compliance activities.

WS: \$10,000 - Funds will be used to monitor water usage; manage current water storage agreements; and track water storage contract billing and payments.

OTHER INFORMATION: None.

Division: SWD District: SWT Project Name: Council Grove Lake, KS

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Dardanelle Lock & Dam, AR

AUTHORIZATION: River and Harbor Act of 1946

LOCATION AND DESCRIPTION: This project is located in Pope, Logan, Johnson and Yell Counties of Arkansas. Dardanelle Lock and Dam are located on the McClellan-Kerr Arkansas River Navigation System and the project purposes include hydropower and navigation. The project contains four 35,000 kW hydropower generator units.

RECOVERY ACT ALLOCATIONS TO DATE: \$2,399,000

PRESIDENT'S BUDGET FOR FY 2011: \$7,632,000

BUDGET FOR FY 2012: M: \$2,191,000 **O:** \$5,723,000 **T:** \$7,914,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$3,352,000 – Funds will be used for routine operations and maintenance for navigation required for pool regulation and lock operations; perform failure diagnostics and repairs; perform dam safety monitoring and periodic inspections; routine joint operations of powerplant and dam components; channel maintenance to include dredging; and scheduled critical cyclical maintenance. These funds would improve navigation performance by increasing the availability and reliability of the system and provide for decreased future repair costs due to continual deferred maintenance.

FRM: \$215,000 – Funds will be used for routine operations and maintenance of pump station, service facilities and permanent operating equipment to meet basic flood risk management mission. These funds would improve flood risk management performance by reducing the risk of failure, provide increased efficiency, and lower future repair costs.

REC: \$1,678,000 – Funds will be used for routine operations and maintenance for recreation; implementation of law enforcement agreements; perform water management analysis (control and quality); real estate management; environmental compliance; water management of water control data systems; and operation and maintenance of visitor center.

HYD: \$2,476,000 – Funds will be used for routine operations and maintenance for hydropower generations and powerplant equipment; routine operations and maintenance of joint operations of powerplant and dam components; encroachment resolutions; and compliance with NERC/FERC reliability standards. These funds would improve hydropower performance by increasing unit availability, thus reducing long-term forced outages, and would provide for additional revenue to the Treasury.

ES: \$193,000 – Funds will be used for routine operations and maintenance for environmental stewardship; monitoring and protection of known archeological sites; comply with the Endangered Species Act; identification and protection of nesting sites; support shoreline management and compliance; outgrant compliance; and utilization inspections and management activities.

WS: N/A

OTHER INFORMATION: None.

Division: SWD

District: SWL

Project Name: Dardanelle Lock & Dam, AR

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Denison Dam, Lake Texoma, TX and OK

AUTHORIZATION: Flood Control Act of 1938

LOCATION AND DESCRIPTION: Denison Dam, Lake Texoma is located on the Red River at river mile 725.9, about 5 miles northwest of the town of Denison in Grayson County, Texas. This is a multi-purpose project with flood control, water supply, hydroelectric power, regulation of Red River flows, improvement of navigation, and recreation outputs. The project consists of a 17,200 foot long rolled earth-filled embankment with an uncontrolled concrete, gravity chute-type spillway and six 9x19 foot vertical lift gates. The project contains two 35,000 kW hydropower generator units. At top of power pool the lake covers 74,686 acres.

RECOVERY ACT ALLOCATIONS TO DATE: \$7,148,000

PRESIDENT'S BUDGET FOR FY 2011: \$10,057,000

BUDGET FOR FY 2012: M: \$1,210,000 O: \$5,729,000 T: \$6,939,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$1,327,000 - Funds will be used for routine operations, maintenance, and inspections on structures that reduce flood risk to property and human life, including preventative, routine, and limited breakdown maintenance; operation and inspection of structures to insure projects are performing as designed; and collection of dam safety data.

REC: \$2,671,000 - Funds will be used for routine operations and maintenance activities related to recreation, including ranger patrols; mowing and other service contracts to maintain park and camping areas; utilities; and limited breakdown maintenance.

HYD: \$2,484,000 - Funds will be used for routine operations and maintenance activities required to keep the powerhouse and associated equipment operating efficiently, including operation of generating units and auxiliary equipment; performing preventative, routine, and limited breakdown maintenance on equipment; and inspecting equipment for suitability of service.

ES: \$433,000 - Funds will be used for routine environmental compliance activities, including monitoring of threatened and endangered species; protection of significant cultural resources; water quality monitoring; natural resources management; invasive species control; public education programs; and NEPA compliance activities.

WS: \$24,000 - Funds will be used to monitor water usage; manage current water storage agreements; and track water storage contract billing and payments.

OTHER INFORMATION: None.

Division: SWD District: SWT Project Name: Denison Dam, Lake Texoma, TX and OK

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: DeQueen Lake, AR

AUTHORIZATION: Flood Control Act of 1958

LOCATION AND DESCRIPTION: DeQueen Lake is located on the Rolling Fork River, in Sevier County, DeQueen, Arkansas. The project was authorized for the purposes of flood damage reduction, water supply, and recreation.

RECOVERY ACT ALLOCATIONS TO DATE: \$191,000

PRESIDENT'S BUDGET FOR FY 2011: \$1,467,000

BUDGET FOR FY 2012: M: \$391,000 **O:** \$1,296,000 **T:** \$1,687,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$1,162,000 – Funds will be used for routine operations and maintenance for flood risk management; essential inspection and maintenance of FRM structures and equipment; routine operation of dam, reservoir, service facilities and permanent operating equipment; periodic inspection of vehicle bridges; maintenance of tractor slide gates, hoists, overhead crane and emergency generator. These funds would improve flood risk management performance by reducing the risk of failure, flooding, loss of life and environmental damage, and providing for increased efficiency and lower future repair costs.

REC: \$480,000 – Funds will be used for routine operations and maintenance for recreation; implementation of law enforcement agreements; perform water management analysis (control and quality); real estate management; environmental compliance; and water management of water control data systems.

HYD: N/A

ES: \$40,000 – Funds will be used for routine operations and maintenance for environmental stewardship; complete prescribed burning; stump grinding; wildlife habitat creation plots; encroachment detection and mitigation; boundary inspection and maintenance; monitoring and protection of known archeological sites; identification and protection of nesting sites; and survey and manage the pink musket mussel in accordance with the Endangered Species Act.

WS: \$5,000 – Funds will be used to monitor water usage; manage current water storage agreements; and track water storage contract billing and payments.

OTHER INFORMATION: None.

Division: SWD

District: SWL

Project Name: DeQueen Lake, AR

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Dierks Lake, AR

AUTHORIZATION: Flood Control Act of 1958

LOCATION AND DESCRIPTION: Dierks Lake is located on the Saline River in Howard and Sevier Counties, Dierks, Arkansas. The project's primary purposes are flood damage reduction, water supply, and recreation.

RECOVERY ACT ALLOCATIONS TO DATE: \$193,000

PRESIDENT'S BUDGET FOR FY 2011: \$1,570,000

BUDGET FOR FY 2012: M: \$347,000 **O:** \$1,074,000 **T:** \$1,421,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$884,000 – Funds will be used for routine operations and maintenance for flood risk management; essential inspection and maintenance of FRM structures and equipment; routine operation of dam, reservoir, service facilities and permanent operating equipment; periodic inspection of vehicle bridges; maintenance of tractor slide gates, hoists, overhead crane and emergency generator. These funds would improve flood risk management performance by reducing the risk of failure, flooding, loss of life and environmental damage, and providing for increased efficiency and lower future repair costs.

REC: \$480,000 – Funds will be used for routine operations and maintenance for recreation; implementation of law enforcement agreements; perform water management analysis (control and quality); real estate management; environmental compliance; and water management of water control data systems.

HYD: N/A

ES: \$51,000 – Funds will be used for routine operations and maintenance for environmental stewardship; complete prescribed burning; stump grinding; wildlife habitat creation plots; encroachment detection and mitigation; boundary inspection and maintenance; monitoring and protection of known archeological sites; identification and protection of nesting sites; and management of endangered species.

WS: \$6,000 – Funds will be used to monitor water usage; manage current water storage agreements; and track water storage contract billing and payments.

OTHER INFORMATION: None.

Division: SWD

District: SWL

Project Name: Dierks Lake, AR

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: El Dorado Lake, KS

AUTHORIZATION: Flood Control Act of 1965

LOCATION AND DESCRIPTION: El Dorado Lake is located at river mile 114.7 on the Walnut River, a tributary of the Arkansas River, about 2 miles northeast of the town of El Dorado in Butler County, Kansas. This is a multi-purpose project with flood control, water supply, water quality control, and recreation outputs. The project consists of a 20,850 foot long earth embankment with spillway. At conservation pool the lake covers 7,997 acres.

RECOVERY ACT ALLOCATIONS TO DATE: \$176,000

PRESIDENT'S BUDGET FOR FY 2011: \$609,000

BUDGET FOR FY 2012: M: \$551,000 O: \$535,000 T: \$1,086,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$987,000 - Funds will be used for routine operations, maintenance, and inspections on structures that reduce flood risk to property and human life, including preventative, routine, and limited breakdown maintenance; operation and inspection of structures to insure projects are performing as designed; and collection of dam safety data.

REC: \$37,000 - Funds will be used for routine operations and maintenance activities related to recreation, including ranger patrols; mowing and other service contracts to maintain park and camping areas; utilities; and break-down maintenance.

HYD: N/A

ES: \$47,000 - Funds will be used for routine environmental compliance activities, including monitoring of threatened and endangered species; protection of significant cultural resources; water quality monitoring; natural resources management; invasive species control; public education programs; and NEPA compliance activities.

WS: \$15,000 - Funds will be used to monitor water usage; manage current water storage agreements; and track water storage contract billing and payments.

OTHER INFORMATION: None.

Division: SWD District: SWT Project Name: El Dorado Lake, KS

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Elk City Lake, KS

AUTHORIZATION: Flood Control Act of 1941

LOCATION AND DESCRIPTION: Elk City Lake is located on the Elk River at river mile 8.7, about 7 miles east of the town of Elk City in Montgomery County, Kansas. This is a multi-purpose project with flood control, water supply, water quality, recreation, and fish and wildlife outputs. The project consists of a 4,840 foot earth embankment with an uncontrolled spillway, 16 foot conduit, and stilling basin. At conservation pool the lake covers 4,118 acres.

RECOVERY ACT ALLOCATIONS TO DATE: \$1,274,000

PRESIDENT'S BUDGET FOR FY 2011: \$1,040,000

BUDGET FOR FY 2012: M: \$171,000 O: \$700,000 T: \$871,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$661,000 - Funds will be used for routine operations, maintenance, and inspections on structures that reduce flood risk to property and human life, including preventative, routine, and limited breakdown maintenance; operation and inspection of structures to insure projects are performing as designed; and collection of dam safety data.

REC: \$164,000 - Funds will be used for routine operations and maintenance activities related to recreation, including ranger patrols; mowing and other service contracts to maintain park and camping areas; utilities; and break-down maintenance.

HYD: N/A

ES: \$36,000 - Funds will be used for routine environmental compliance activities, including monitoring of threatened and endangered species; protection of significant cultural resources; water quality monitoring; natural resources management; invasive species control; public education programs; and NEPA compliance activities.

WS: \$10,000 - Funds will be used to monitor water usage; manage current water storage agreements; and track water storage contract billing and payments.

OTHER INFORMATION: None.

Division: SWD District: SWT Project Name: Elk City Lake, KS

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Estelline Springs Experimental Project, TX

AUTHORIZATION: Flood Control Act of 1966

LOCATION AND DESCRIPTION: The Estelline Springs Experimental Project is located on the Prairie Dog Town Fork of the Red River, about 0.5 miles east of the town of Estelline in Hall County, Texas. This is a single purpose project with water quality control outputs. The project consists of an earthen ring dike nine feet high and 340 feet in diameter that surrounds Estelline Springs.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

PRESIDENT'S BUDGET FOR FY 2011: \$43,000

BUDGET FOR FY 2012: M: \$44,000 O: \$0 T: \$44,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: N/A

REC: N/A

HYD: N/A

ES: \$44,000 - Funds will be used for routine operations and maintenance at the project; water quality control; intensive wildlife management as required by WRDA 1986; monitoring of endangered and other fish and wildlife species; compliance activities associated with the National Historic Preservation Act; natural resources management; and water quality monitoring.

WS: N/A

OTHER INFORMATION: None.

Division: SWD District: SWT Project Name: Estelline Springs Experimental Project, TX

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Eufaula Lake, OK

AUTHORIZATION: River and Harbor Act of 1946

LOCATION AND DESCRIPTION: Eufaula Lake is located on the Canadian River at river mile 27.0, about 12 miles east of the town of Eufaula in McIntosh County, Oklahoma. This is a multi-purpose project with flood control, water supply, hydroelectric power, and navigation outputs. The project consists of a 3300 foot long rolled earth-filled embankment with a concrete, gravity ogee weir controlled spillway with eleven 40x32 foot tainter gates. The project contains three 30,000 kW hydropower generator units. At conservation pool the lake covers 105,500 acres.

RECOVERY ACT ALLOCATIONS TO DATE: \$6,091,000

PRESIDENT'S BUDGET FOR FY 2011: \$7,232,000

BUDGET FOR FY 2012: M: \$1,439,000 O: \$4,610,000 T: \$ 6,049,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$330,000 - Funds will be used for limited operations and maintenance of structures for navigation water releases for the McClellan-Kerr Arkansas River Navigation System.

FRM: \$1,222,000 - Funds will be used for routine operations, maintenance, and inspections on structures that reduce flood risk to property and human life, including preventative, routine, and limited breakdown maintenance; operation and inspection of structures to insure projects are performing as designed; and collection of dam safety data.

REC: \$1,889,000 - Funds will be used for routine operations and maintenance activities related to recreation, including ranger patrols; mowing and other service contracts to maintain park and camping areas; utilities; and limited breakdown maintenance.

HYD: \$1,702,000 - Funds will be used for routine operations and maintenance activities required to keep the powerhouse and associated equipment operating efficiently, including operation of generating units and auxiliary equipment; performing preventative, routine, and limited breakdown maintenance on equipment; and inspecting equipment for suitability of service.

ES: \$882,000 - Funds will be used for routine environmental compliance activities, including monitoring of threatened and endangered species; protection of significant cultural resources; water quality monitoring; natural resources management; invasive species control; public education programs; and NEPA compliance activities. A total of \$500,000 of these funds will be used to continue the EIS associated with updating the shoreline management plan at the project.

WS: \$24,000 - Funds will be used to monitor water usage; manage current water storage agreements; and track water storage contract billing and payments.

OTHER INFORMATION: None.

Division: SWD District: SWT Project Name: Eufaula Lake, OK

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Fall River Lake, KS

AUTHORIZATION: Flood Control Act of 1941

LOCATION AND DESCRIPTION: Fall River Lake is located on the Fall River at river mile 54.2, about 4 miles northwest of the town of Fall River in Greenwood County, Kansas. This is a multi-purpose project with flood control, water quality, fish and wildlife, and supplemental water supply outputs. The project consists of a 5,455 foot long earth embankment with a gate weir and two tainter gates. At conservation pool the lake covers 2,350 acres.

RECOVERY ACT ALLOCATIONS TO DATE: \$5,456,000

PRESIDENT'S BUDGET FOR FY 2011: \$1,200,000

BUDGET FOR FY 2012: M: \$348,000 O: \$960,000 T: \$1,308,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$968,000 - Funds will be used for routine operations, maintenance, and inspections on structures that reduce flood risk to property and human life, including preventative, routine, and limited breakdown maintenance; operation and inspection of structures to insure projects are performing as designed; and collection of dam safety data.

REC: \$282,000 - Funds will be used for routine operations and maintenance activities related to recreation, including ranger patrols; mowing and other service contracts to maintain park and camping areas; utilities; and break-down maintenance.

HYD: N/A

ES: \$58,000 - Funds will be used for routine environmental compliance activities, including monitoring of threatened and endangered species; protection of significant cultural resources; water quality monitoring; natural resources management; invasive species control; public education programs; and NEPA compliance activities.

WS: N/A

OTHER INFORMATION: None.

Division: SWD District: SWT Project Name: Fall River Lake, KS

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Ferrells Bridge Dam – Lake O’ the Pines, TX

AUTHORIZATION: Flood Control Acts of 1937 and 1946

LOCATION AND DESCRIPTION: Ferrells Bridge Dam – Lake O’ the Pines is located on Cypress Creek in Marion, Harrison, Upshur, Morris Camp and Titus Counties, eight miles west of the city of Jefferson, Texas. The project consists of an earthfill embankment and two conduits. Flood control storage is 587,200 acre-feet and water supply storage is 279,900 acre-feet. Thirty-four recreation areas comprise 758 acres. 2010 visitation totaled 10,627,209 visitor hours.

RECOVERY ACT ALLOCATIONS TO DATE: \$10,571,000

PRESIDENT’S BUDGET FOR FY 2011: \$3,709,000

BUDGET FOR FY 2012: M: \$981,000 O: \$2,483,000 T: \$3,464,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$1,573,000 - Funds will be used to operate and maintain dams, levees, and other flood risk reduction facilities.

REC: \$1,476,000 - Funds will be used to operate and maintain parks and other public use areas.

HYD: N/A

ES: \$380,000 - Funds will be used to identify, maintain, and protect natural and cultural resources.

WS: \$35,000 - Funds will be used to monitor water usage; manage current water storage agreements; and track water storage contract billing and payments.

OTHER INFORMATION: None.

Division: SWD

District: SWF

Project Name: Ferrells Bridge Dam-Lake O’ the Pines,
TX

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Fort Gibson Lake, OK

AUTHORIZATION: Flood Control Act of 1941, River and Harbor Act of 1946, and the Water Resources Development Act of 1986

LOCATION AND DESCRIPTION: Fort Gibson Lake is located on the Grand (Neosho) River at river mile 7.7 about 12 miles northeast of the town of Muskogee in Mayes, Wagoner, and Cherokee Counties, Oklahoma. This is a multi-purpose project with flood control and hydroelectric power outputs. The project consists of a 2,990 foot long rolled earth-filled embankment which includes the concrete, gravity ogee weir controlled spillway and the powerhouse intake structure. The spillway is equipped with thirty 40x35 foot tainter gates, while the powerhouse contains four 11,250kW hydropower generator units. At conservation pool the lake covers 19,900 acres.

RECOVERY ACT ALLOCATIONS TO DATE: \$13,052,000

PRESIDENT'S BUDGET FOR FY 2011: \$6,216,000

BUDGET FOR FY 2012: M: \$1,454,000 O: \$3,538,000 T: \$4,992,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$835,000 - Funds will be used for routine operations, maintenance, and inspections on structures that reduce flood risk to property and human life, including preventative, routine, and limited breakdown maintenance; operation and inspection of structures to insure projects are performing as designed; and collection of dam safety data.

REC: \$1,699,000 - Funds will be used for routine operations and maintenance activities related to recreation, including ranger patrols; mowing and other service contracts to maintain park and camping areas; utilities; and limited breakdown maintenance.

HYD: \$2,305,000 - Funds will be used for routine operations and maintenance activities required to keep the powerhouse and associated equipment operating efficiently, including operation of generating units and auxiliary equipment; performing preventative, routine, and limited breakdown maintenance on equipment; and inspecting equipment for suitability of service.

ES: \$153,000 - Funds will be used for routine environmental compliance activities, including monitoring of threatened and endangered species; protection of significant cultural resources; water quality monitoring; natural resources management; invasive species control; public education programs; and NEPA compliance activities.

WS: N/A

OTHER INFORMATION: None.

Division: SWD District: SWT Project Name: Fort Gibson Lake, OK

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Fort Supply Lake, OK

AUTHORIZATION: Flood Control Act of 1936

LOCATION AND DESCRIPTION: Fort Supply Lake is located at river mile 5.5 on Wolf Creek, a tributary of the North Canadian River, about 12 miles northwest of the town of Woodward in Woodward County, Oklahoma. This is a multi-purpose project with flood control and conservation storage (water supply) outputs. The project consists of an 11,865 foot long rolled earth-filled embankment with an uncontrolled, concrete, chute-type spillway. Spillway discharges are controlled by three 7x16 foot vertical lift gates. At conservation pool the lake covers 1,820 acres.

RECOVERY ACT ALLOCATIONS TO DATE: \$237,000

PRESIDENT'S BUDGET FOR FY 2011: \$1,058,000

BUDGET FOR FY 2012: M: \$339,000 **O:** \$750,000 **T:** \$ 1,089,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$661,000 - Funds will be used for routine operations, maintenance, and inspections on structures that reduce flood risk to property and human life, including preventative, routine, and limited breakdown maintenance; operation and inspection of structures to insure projects are performing as designed; and collection of dam safety data.

REC: \$386,000 - Funds will be used for routine operations and maintenance activities related to recreation, including ranger patrols; mowing and other service contracts to maintain park and camping areas; utilities; and breakdown maintenance.

HYD: N/A

ES: \$42,000 - Funds will be used for routine environmental compliance activities, including monitoring of threatened and endangered species; protection of significant cultural resources; water quality monitoring; natural resources management; invasive species control; public education programs; and NEPA compliance activities.

WS: N/A

OTHER INFORMATION: None.

Division: SWD District: SWT Project Name: Fort Supply Lake, OK

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Freeport Harbor, TX

AUTHORIZATION: House Doc. 289, 93rd Cong., 2nd Sess.

LOCATION AND DESCRIPTION: This navigation project is located in the vicinity of Freeport, in Brazoria County, Texas. The project is a deep draft channel 8.5 miles in length extending from the Gulf of Mexico through a jettied entrance channel to the Upper Turning Basin.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

PRESIDENT'S BUDGET FOR FY 2011: \$3,538,000

BUDGET FOR FY 2012: M: \$4,796,000 O: \$0 T: \$4,796,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$4,796,000 – Activities include annual dredging of the Entrance Channel to authorized project depth and limited advance maintenance. These funds would improve navigation performance and reliability.

FRM: NA

REC: NA

HYD: NA

ES: NA

WS: NA

OTHER INFORMATION: Local sponsor has permit to widen channel and has requested the Corp to assume maintenance.

Division: SWD District: SWG Project Name: Freeport Harbor, TX

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Galveston Harbor and Channel, TX

AUTHORIZATION: House Document 121, 92nd Congress

LOCATION AND DESCRIPTION: The project is located in the vicinity of Galveston in Galveston County, Texas. Galveston Harbor and Channel is a 14.4 mile deep draft channel 45 ft that extends from deep water in the Gulf of Mexico through jetties to Galveston Bay near Bolivar Roads. From this point, the channel portion extends up to 43rd Street in Galveston, Texas.

RECOVERY ACT ALLOCATIONS TO DATE: \$3,256,000

PRESIDENT'S BUDGET FOR FY 2011: \$8,441,000

BUDGET FOR FY 2012: M: \$3,738,000 O: \$0 T: \$3,738,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$3,738,000 – Funding provides for routine maintenance dredging within the Galveston Harbor and Channel including pipeline and/or hopper dredging. These funds would improve navigation performance and reliability.

FRM: N/A

REC: N/A

HYD: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None.

Division: SWD District: SWG Project Name: Galveston Harbor & Channel, TX

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Gillham Lake, AR

AUTHORIZATION: Flood Control Act of 1958

LOCATION AND DESCRIPTION: Gillham Lake is located on the Cossatot River, in Howard County, Gillham, Arkansas. The project's primary purposes are flood damage reduction, water supply, and recreation.

RECOVERY ACT ALLOCATIONS TO DATE: \$373,000

PRESIDENT'S BUDGET FOR FY 2011: \$1,340,000

BUDGET FOR FY 2012: M: \$333,000 **O:** \$1,012,000 **T:** \$1,345,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$875,000 – Funds will be used for routine operations and maintenance for flood risk management; essential inspection and maintenance of FRM structures and equipment; routine operation of dam, reservoir, service facilities and permanent operating equipment; periodic inspection of vehicle bridges; maintenance of tractor slide gates, hoists, overhead crane and emergency generator. These funds would improve flood risk management performance by reducing the risk of failure, flooding, loss of life and environmental damage, and providing for increased efficiency and lower future repair costs.

REC: \$425,000 – Funds will be used for routine operations and maintenance for recreation; implementation of law enforcement agreements; perform water management analysis (control and quality); real estate management; environmental compliance; and water management of water control data systems.

HYD: N/A

ES: \$42,000 – Funds will be used for routine operations and maintenance for environmental stewardship; complete prescribed burning; stump grinding; wildlife habitat creation plots; encroachment detection and mitigation; boundary inspection and maintenance; monitoring and protection of known archeological sites; identification and protection of nesting sites; and management of endangered species.

WS: \$3,000 – Funds will be used to monitor water usage; manage current water storage agreements; and track water storage contract billing and payments.

OTHER INFORMATION: None.

Division: SWD

District: SWL

Project Name: Gillham Lake, AR

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: GIWW, Channel to Victoria, TX

AUTHORIZATION: PL 100-676

LOCATION AND DESCRIPTION: This navigation project is located in the vicinities of Seadrift and Victoria in Calhoun and Victoria Counties, Texas. The Channel to Victoria is a 34.8 mile shallow draft channel extending from the Gulf Intracoastal Waterway at Mile 492 northwesterly across San Antonio Bay through a landlocked section lying east of the Guadalupe River and terminating at the turning basin near the City of Victoria. The Channel to Seadrift project provides a 2 mile shallow draft channel extending from the Channel to Victoria northeasterly and terminating at the turning basin at Seadrift.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

PRESIDENT'S BUDGET FOR FY 2011: \$1,825,000

BUDGET FOR FY 2012: M: \$3,519,000 O: \$0 T: \$3,519,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$3,519,000 – Activities include dredging the Channel to Victoria Upper Reach to authorized project depth and the curation of artifacts recovered during the development of the project features. These funds would improve navigation performance and reliability.

FRM: NA

REC: NA

HYD: NA

ES: NA

WS: NA

OTHER INFORMATION: None.

Division: SWD District: SWG Project Name: GIWW, Channel to Victoria, TX

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Gulf Intracoastal Waterway, TX

AUTHORIZATION: PL 77-675 authorized the Laguna Madre reach and WRDA 96 authorized the work at Aransas National Wildlife Refuge (ANWR)

LOCATION AND DESCRIPTION: The project traverses the entire Texas Coast, from the Sabine River to Port Isabel, TX. The navigation portion of the Main Channel of the GIWW covers a distance of 423 miles, along with other tributaries. The authorized depth and width is generally 12' x 125'.

RECOVERY ACT ALLOCATIONS TO DATE: \$30,998,000

PRESIDENT'S BUDGET FOR FY 2011: \$27,792,000

BUDGET FOR FY 2012: M: \$20,684,000 O: \$3,593,000 T: \$24,277,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$24,277,000 – Funding provides for routine operations and maintenance of the facilities at the Brazos River Floodgates, Colorado River Locks and Mooring facilities. Funding also provides for maintenance dredging of various reaches along the 423 mile waterway with upland disposal and beneficial use sites. These funds would improve navigation performance and reliability.

FRM: N/A

REC: N/A

HYD: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None.

Division: SWD District: SWG Project Name: Gulf Intracoastal Waterway, TX

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Granger Lake, TX

AUTHORIZATION: Flood Control Acts of 1954 and 1962

LOCATION AND DESCRIPTION: Granger Lake is located on the San Gabriel River in Williamson County, about 10 miles northeast of the city of Taylor. The project consists of a rolled earthfill dam, and controlled outlet works with two hydraulically operated gates. The conservation pool impoundment is 4,400 acres, government fee land consists of 13,602 acres and flood control storage capacity is 178.600 acre-feet. Six recreation areas comprise 1,387 acres. 2010 visitation totaled 748,194 visitor hours.

RECOVERY ACT ALLOCATIONS TO DATE: \$7,863,000

PRESIDENT'S BUDGET FOR FY 2011: \$2,360,000

BUDGET FOR FY 2012: M: \$404,000 O: \$1,901,000 T: \$2,305,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$1,310,000 - Funds will be used to operate and maintain dams, levees, and other flood risk reduction facilities; and, rehab spillway under drain manhole system.

REC: \$868,000 - Funds will be used to operate and maintain parks and other public use areas.

HYD: N/A

ES: \$101,000 - Funds will be used to identify, maintain, and protect natural and cultural resources.

WS: \$26,000 - Funds will be used to monitor water usage; manage current water storage agreements; and track water storage contract billing and payments.

OTHER INFORMATION: None.

Division: SWD District: SWF

Project Name: Granger Lake, TX

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Grapevine Lake, TX

AUTHORIZATION: River and Harbor Act of 1945

LOCATION AND DESCRIPTION: Grapevine Lake is located in Denton and Tarrant Counties, at river mile 11.7 on Denton Creek, Trinity River Basin, near the city of Grapevine, and approximately 20 miles northwest of the city of Dallas, Texas. The project consists of a rolled earthfill dam, a 500' uncontrolled concrete ogee weir spillway, and conduit controlled by two broome-type gates. The flood control/storage capacity is 243,050 acre-feet and conservation/water supply storage is 158,900 acre-feet. Twelve recreation areas comprise 3,660 acres. 2010 visitation totaled 7,625,287 visitor hours.

RECOVERY ACT ALLOCATIONS TO DATE: \$998,000

PRESIDENT'S BUDGET FOR FY 2011: \$3,014,000

BUDGET FOR FY 2012: M: \$742,000 O: \$2,239,000 T: \$2,981,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$1,488,000 - Funds will be used to operate and maintain dams, levees, and other flood risk reduction facilities; repair erosion and expand seepage collection.

REC: \$1,240,000 - Funds will be used to operate and maintain parks and other public use areas.

HYD: N/A

ES: \$214,000 - Funds will be used to identify, maintain, and protect natural and cultural resources.

WS: \$39,000 - Funds will be used to monitor water usage; manage current water storage agreements; and track water storage contract billing and payments.

OTHER INFORMATION: None.

Division: SWD District: SWF

Project Name: Grapevine Lake, TX

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Great Salt Plains Lake, OK

AUTHORIZATION: Flood Control Act of 1936

LOCATION AND DESCRIPTION: Great Salt Plains Lake is located on the Salt Fork of the Arkansas River at river mile 103.3 about 12 miles east of the town of Cherokee in Alfalfa County, Oklahoma. This is a multi-purpose project with flood control, conservation, recreation, and fish and wildlife outputs. The project consists of a rolled earth-filled embankment and concrete spillway having a total crest length of 6,010 feet and rising to a maximum height of 68 feet above the streambed. At top of flood control pool the lake covers 25,660 acres.

RECOVERY ACT ALLOCATIONS TO DATE: \$190,000

PRESIDENT'S BUDGET FOR FY 2011: \$406,000

BUDGET FOR FY 2012: M: \$208,000 O: \$503,000 T: \$711,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$664,000 - Funds will be used for routine operations, maintenance, and inspections on structures that reduce flood risk to property and human life, including preventative, routine, and limited breakdown maintenance; operation and inspection of structures to insure projects are performing as designed; and collection of dam safety data.

REC: \$32,000 - Funds will be used for routine operations and maintenance activities related to recreation, including ranger patrols; mowing and other service contracts to maintain park and camping areas; utilities; and breakdown maintenance.

HYD: N/A

ES: \$15,000 - Funds will be used for routine environmental compliance activities, including monitoring of threatened and endangered species; protection of significant cultural resources; water quality monitoring; natural resources management; invasive species control; public education programs; and NEPA compliance activities.

WS: N/A

OTHER INFORMATION: None.

Division: SWD District: SWT Project Name: Great Salt Plains Lake, OK

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Greens Bayou Channel, TX

AUTHORIZATION: House Document 257, 89th Congress, 1st Session and PL 99-662

LOCATION AND DESCRIPTION: The project is located in the vicinities of Houston, Pasadena, Deer Park, Jacinto City, and Galena Park in Harris County, Texas. The Greens Bayou Channel is a 1.6 mile long shallow and deep draft waterway which extends from the Houston Ship Channel at mile 42.9 northeast up Greens Bayou.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

PRESIDENT'S BUDGET FOR FY 2011: \$0

BUDGET FOR FY 2012: M: \$800,000 **O:** \$0 **T:** \$800,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$800,000 – Funds will be used for routine maintenance dredging of Greens Bayou Channel to project depth. These funds would improve navigation performance and reliability.

FRM: N/A

REC: N/A

HYD: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None.

Division: SWD District: SWG Project Name: Galveston Harbor & Channel, TX

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Greers Ferry Lake, AR

AUTHORIZATION: Flood Control Act of 1938 as amended by the Flood Control Acts of 1941 and 1944

LOCATION AND DESCRIPTION: Greers Ferry Lake is located on the Little Red River in Cleburne and Van Buren Counties, Heber Springs, Arkansas. Greers Ferry is one of the five multiple purpose projects in the White River Basin and was constructed for the generation of hydropower and flood damage reduction. The project contains two 48,000 kW hydropower generating units.

RECOVERY ACT ALLOCATIONS TO DATE: \$3,560,000

PRESIDENT'S BUDGET FOR FY 2011: \$10,230,000

BUDGET FOR FY 2012: M: \$411,000 O: \$5,243,000 T: \$5,654,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$1,176,000 – Funds will be used for routine operations and maintenance for flood risk management; essential inspection and maintenance of FRM structures and equipment; routine operation of dam, reservoir, service facilities and permanent operating equipment; critical routine operations and maintenance for the joint costs associated with the dam, powerplant and project; maintenance of 6 tainter gates, sluice gates, overhead crane, and emergency generator. These funds would improve flood risk management performance by reducing the risk of failure, flooding, loss of life and environmental damage, provide increased efficiency, and lower future repair costs.

REC: \$2,929,000 – Funds will be used for routine operations and maintenance for recreation; implementation of law enforcement agreements; perform water management analysis (control and quality); real estate management; environmental compliance; and water management of water control data systems.

HYD: \$1,317,000 – Funds will be used for routine operations and maintenance for hydropower generations and powerplant equipment; routine operations and maintenance of joint operations of powerplant and dam components; encroachment resolutions; and compliance with NERC/FERC reliability standards. These funds would improve hydropower performance, reduce loss of power production, increase unit availability, reduce the chance of long term outages and provide revenue to the Treasury.

ES: \$222,000 – Funds will be used for routine operations and maintenance for environmental stewardship; administration of shoreline management plan; ensure cultural, archeological and historical resources are protected; and compliance with the Endangered Species Act.

WS: \$10,000 – Funds will be used to monitor water usage; manage current water storage agreements; and track water storage contract billing and payments.

OTHER INFORMATION: None.

Division: SWD

District: SWL

Project Name: Greers Ferry Lake, AR

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Heyburn Lake, OK

AUTHORIZATION: Flood Control Act of 1946

LOCATION AND DESCRIPTION: Heyburn Lake is located at river mile 48.6 on Polecat Creek, a tributary of the Arkansas River, about 11 miles southwest of the town of Sapulpa in Creek County, Oklahoma. This is a multi-purpose project with flood control and conservation (water supply, recreation, and fish and wildlife) outputs. The project consists of a 2,920 foot long rolled earth-filled embankment with an uncontrolled spillway. At conservation pool the lake covers 877 acres.

RECOVERY ACT ALLOCATIONS TO DATE: \$453,000

PRESIDENT'S BUDGET FOR FY 2011: \$603,000

BUDGET FOR FY 2012: M: \$141,000 O: \$493,000 T: \$634,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$380,000 - Funds will be used for routine operations, maintenance, and inspections on structures that reduce flood risk to property and human life, including preventative, routine, and limited breakdown maintenance; operation and inspection of structures to insure projects are performing as designed; and collection of dam safety data.

REC: \$239,000 - Funds will be used for routine operations and maintenance activities related to recreation, including ranger patrols; mowing and other service contracts to maintain park and camping areas; utilities; and breakdown maintenance.

HYD: N/A

ES: \$10,000 - Funds will be used for routine environmental compliance activities, including monitoring of threatened and endangered species; protection of significant cultural resources; water quality monitoring; natural resources management; invasive species control; public education programs; and NEPA compliance activities.

WS: \$5,000 - Funds will be used to monitor water usage; manage current water storage agreements; and track water storage contract billing and payments.

OTHER INFORMATION: None.

Division: SWD District: SWT Project Name: Heyburn Lake, OK

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Hords Creek Lake, TX

AUTHORIZATION: River and Harbor Act of 1945

LOCATION AND DESCRIPTION: Hords Creek Lake is located in Coleman County, about 13 miles west of the city of Coleman, Texas. The project consists of an earthfill embankment and one conduit controlled by two gates. The water supply outlet is cast iron pipe and the controlled conduit outlet has two slide gates. Flood control storage is 16,670 acre-feet and water supply storage is 5,684 acre-feet. Three recreation areas comprise 1,215 acres. 2010 visitation totaled 933,640 visitor hours.

RECOVERY ACT ALLOCATIONS TO DATE: \$551,000

PRESIDENT'S BUDGET FOR FY 2011: \$1,708,000

BUDGET FOR FY 2012: M: \$383,000 O: \$1,252,000 T: \$1,635,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$795,000 - Funds will be used to operate and maintain dams, levees, and other flood risk reduction facilities; and, repair hydraulic pumps for flood gates.

REC: \$775,000 - Funds will be used to operate and maintain parks and other public use areas.

HYD: N/A

ES: \$65,000 - Funds will be used to identify, maintain, and protect natural and cultural resources.

WS: N/A

OTHER INFORMATION: None.

Division: SWD District: SWF

Project Name: Hords Creek Lake, TX

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Houston Ship Channel, TX

AUTHORIZATION: House Document 101 (30), PL 104-303

LOCATION AND DESCRIPTION: The Houston Ship Channel is a 54.0 mile long deep draft waterway which extends from Bolivar Roads near Galveston, Texas, north through Galveston Bay, the San Jacinto River, and Buffalo Bayou to a Main Turning Basin at Houston, Texas. The project also includes a 6.5 mile long shallow draft reach. The Light Draft Channel extends upstream of the Main Turning Basin.

RECOVERY ACT ALLOCATIONS TO DATE: \$42,700,000

PRESIDENT'S BUDGET FOR FY 2011: \$17,978,000

BUDGET FOR FY 2012: M: \$18,188,000 O: \$0 T: \$18,188,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$18,188,000 – Funding provides for maintenance dredging of various reaches of the Houston Ship Channel (HSC), along the 52 mile waterway, with upland, confined disposal. These funds would improve navigation performance and reliability.

FRM: N/A

REC: N/A

HYD: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None.

Division: SWD District: SWG Project Name: Houston Ship Channel, TX

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Hugo Lake, OK

AUTHORIZATION: Flood Control Act of 1946

LOCATION AND DESCRIPTION: Hugo Lake is located on the Kiamichi River at river mile 17.6, about 7 miles east of the town of Hugo in Choctaw County, Oklahoma. This is a multi-purpose project with flood control, water supply, water quality, recreation, and fish and wildlife outputs. The project consists of a 10,200 foot long rolled earth-filled embankment with a gate controlled, concrete gravity ogee weir spillway with six 40x50 foot gates. At conservation pool the lake covers 13,144 acres.

RECOVERY ACT ALLOCATIONS TO DATE: \$840,000

PRESIDENT'S BUDGET FOR FY 2011: \$1,748,000

BUDGET FOR FY 2012: M: \$106,000 O: \$1,443,000 T: \$1,549,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$712,000 - Funds will be used for routine operations, maintenance, and inspections on structures that reduce flood risk to property and human life, including preventative, routine, and limited breakdown maintenance; operation and inspection of structures to insure projects are performing as designed; and collection of dam safety data.

REC: \$761,000 - Funds will be used for routine operations and maintenance activities related to recreation, including ranger patrols; mowing and other service contracts to maintain park and camping areas; utilities; and breakdown maintenance.

HYD: N/A

ES: \$71,000 - Funds will be used for routine environmental compliance activities, including monitoring of threatened and endangered species; protection of significant cultural resources; water quality monitoring; natural resources management; invasive species control; public education programs; and NEPA compliance activities.

WS: \$5,000 - Funds will be used to monitor water usage; manage current water storage agreements; and track water storage contract billing and payments.

OTHER INFORMATION: None.

Division: SWD District: SWT Project Name: Hugo Lake, OK

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Hulah Lake, OK

AUTHORIZATION: Flood Control Act of 1936

LOCATION AND DESCRIPTION: Hulah Lake is located at river mile 96.2 on the Caney River, a tributary of the Verdigris River, about 15 miles northwest of the town of Bartlesville in Osage County, Oklahoma. This is a multi-purpose project with flood control, water supply, low flow regulation, and conservation outputs. The project consists of a 10,200 foot long rolled earth-filled embankment with a gate controlled, concrete gravity ogee weir spillway with ten 40x25 foot tainter gates. At conservation pool the lake covers 3,120 acres.

RECOVERY ACT ALLOCATIONS TO DATE: \$558,000

PRESIDENT'S BUDGET FOR FY 2011: \$901,000

BUDGET FOR FY 2012: M: \$259,000 O: \$513,000 T: \$772,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$692,000 - Funds will be used for routine operations, maintenance, and inspections on structures that reduce flood risk to property and human life, including preventative, routine, and limited breakdown maintenance; operation and inspection of structures to insure projects are performing as designed; and collection of dam safety data.

REC: \$50,000 - Funds will be used for routine operations and maintenance activities related to recreation, including ranger patrols; mowing and other service contracts to maintain park and camping areas; utilities; and breakdown maintenance.

HYD: N/A

ES: \$25,000 - Funds will be used for routine environmental compliance activities, including monitoring of threatened and endangered species; protection of significant cultural resources; water quality monitoring; natural resources management; invasive species control; public education programs; and NEPA compliance activities.

WS: \$5,000 - Funds will be used to monitor water usage; manage current water storage agreements; and track water storage contract billing and payments.

OTHER INFORMATION: None.

Division: SWD District: SWT Project Name: Hulah Lake, OK

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Jim Chapman Lake, TX

AUTHORIZATION: Flood Control Act of 1954 as amended by the Flood Control Act of 1955

LOCATION AND DESCRIPTION: Jim Chapman Lake is located on the South Sulphur River in Delta and Hopkins Counties, about four miles southeast of the city of Cooper, Texas. The project consists of an earthfill embankment, an uncontrolled spillway, and an outlet works tower. Five recreation areas comprise 2,977 acres. 2010 visitation totaled 3,990,070 visitor hours.

RECOVERY ACT ALLOCATIONS TO DATE: \$1,543,000

PRESIDENT'S BUDGET FOR FY 2011: \$1,939,000

BUDGET FOR FY 2012: M: \$ 448,000 O: \$1,138,000 T: \$1,586,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$922,000 - Funds will be used to operate and maintain dams, levees, and other flood risk reduction facilities.

REC: \$151,000 - Funds will be used to operate and maintain parks and other public use areas.

HYD: N/A

ES: \$480,000 - Funds will be used to identify, maintain, and protect natural and cultural resources.

WS: \$33,000 - Funds will be used to monitor water usage; manage current water storage agreements; and track water storage contract billing and payments.

OTHER INFORMATION: None.

Division: SWD District: SWF

Project Name: Jim Chapman Lake, TX

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Joe Pool Lake, TX

AUTHORIZATION: River and Harbor Act of 1965

LOCATION AND DESCRIPTION: Joe Pool Lake is located in Dallas, Tarrant and Ellis Counties, about 10 miles southwest of the city of Dallas. The project consists of an earthfill dam with uncontrolled concrete spillway. Total storage capacity is 304,500 acre-feet (flood control 127,200 acre-feet, water supply 142,900 acre-feet, and sediment reserve 38,000 acre-feet). There are five recreation areas with 3,730 acres. 2010 visitation totaled 7,548,560 visitor hours.

RECOVERY ACT ALLOCATIONS TO DATE: \$2,531,000

PRESIDENT'S BUDGET FOR FY 2011: \$1,094,000

BUDGET FOR FY 2012: M: \$1,229,000 O: \$727,000 T: \$1,956,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$1,619,000 - Funds will be used to operate and maintain dams, levees, and other flood risk reduction facilities: and, repair embankment seepage area.

REC: \$63,000 - Funds will be used to operate and maintain parks and other public use areas.

HYD: N/A

ES: \$248,000 - Funds will be used to identify, maintain, and protect natural and cultural resources.

WS: \$26,000 - Funds will be used to monitor water usage; manage current water storage agreements; and track water storage contract billing and payments.

OTHER INFORMATION: None.

Division: SWD District: SWF

Project Name: Joe Pool Lake, TX

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: John Redmond Dam and Reservoir, KS

AUTHORIZATION: Flood Control Act of 1950

LOCATION AND DESCRIPTION: John Redmond Dam and Reservoir is located on the Grand (Neosho) River at river mile 343.7, about 3 miles northwest of the town of Burlington in Coffey County, Kansas. This is a multi-purpose project with flood control, water supply, water quality control, and recreation outputs. The project is additionally operated for wildlife objectives. The project consists of a 21,790 foot long structure made up of an earth-filled embankment and a gated ogee weir, concrete spillway with fourteen 40x35 foot high tainter gates located in the left abutment. At conservation pool the lake covers 8,084 acres.

RECOVERY ACT ALLOCATIONS TO DATE: \$4,683,000

PRESIDENT'S BUDGET FOR FY 2011: \$1,760,000

BUDGET FOR FY 2012: M: \$334,000 O: \$1,119,000 T: \$1,453,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$1,082,000 - Funds will be used for routine operations, maintenance, and inspections on structures that reduce flood risk to property and human life, including preventative, routine, and limited breakdown maintenance; operation and inspection of structures to insure projects are performing as designed; and collection of dam safety data.

REC: \$298,000 - Funds will be used for routine operations and maintenance activities related to recreation, including ranger patrols; mowing and other service contracts to maintain park and camping areas; utilities; and break-down maintenance.

HYD: N/A

ES: \$63,000 - Funds will be used for routine environmental compliance activities, including monitoring of threatened and endangered species; protection of significant cultural resources; water quality monitoring; natural resources management; invasive species control; public education programs; and NEPA compliance activities.

WS: \$10,000 - Funds will be used to monitor water usage; manage current water storage agreements; and track water storage contract billing and payments.

OTHER INFORMATION: None.

Division: SWD District: SWT Project Name: John Redmond Dam and Reservoir, KS

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Kaw Lake, OK

AUTHORIZATION: Flood Control Act of 1962

LOCATION AND DESCRIPTION: Kaw Lake is located on the Arkansas River at river mile 653.7, about 8 miles east of the town of Ponca City in Kay County, Oklahoma. This is a multi-purpose project with flood control, water supply, water quality, hydropower, recreation, and fish and wildlife outputs. The project consists of a 9,466 foot long rolled earth-filled embankment with a gate controlled, concrete gravity ogee weir spillway with eight 50x47 foot tainter gates. A single 37 kW generator operated by run of the river is located at the project. At conservation pool the lake covers 16,750 acres.

RECOVERY ACT ALLOCATIONS TO DATE: \$2,349,000

PRESIDENT'S BUDGET FOR FY 2011: \$2,121,000

BUDGET FOR FY 2012: M: \$290,000 O: \$1,859,000 T: \$2,149,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$1,094,000 - Funds will be used for routine operations, maintenance, and inspections on structures that reduce flood risk to property and human life, including preventative, routine, and limited breakdown maintenance; operation and inspection of structures to insure projects are performing as designed; and collection of dam safety data.

REC: \$793,000 - Funds will be used for routine operations and maintenance activities related to recreation, including ranger patrols; mowing and other service contracts to maintain park and camping areas; utilities; and breakdown maintenance.

HYD: N/A

ES: \$238,000 - Funds will be used for routine environmental compliance activities, including monitoring of threatened and endangered species; protection of significant cultural resources; water quality monitoring; natural resources management; invasive species control; public education programs; and NEPA compliance activities.

WS: \$24,000 - Funds will be used to monitor water usage; manage current water storage agreements; and track water storage contract billing and payments.

OTHER INFORMATION: None.

Division: SWD District: SWT Project Name: Kaw Lake, OK

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Keystone Lake, OK

AUTHORIZATION: River and Harbor Act of 1950

LOCATION AND DESCRIPTION: Keystone Lake is located on the Arkansas River at river mile 538.8, about 15 miles west of Tulsa in Tulsa County, Oklahoma. This is a multi-purpose project with flood control, water supply, hydroelectric power, navigation, and fish and wildlife outputs. The project consists of a 4,600 foot long rolled earth-filled embankment with a concrete, gated ogee weir controlled spillway with eighteen 40x35 foot tainter gates. The project contains two 35,000 kW hydropower generator units. At conservation pool the lake covers 23,610 acres.

RECOVERY ACT ALLOCATIONS TO DATE: \$1,634,000

PRESIDENT'S BUDGET FOR FY 2011: \$5,006,000

BUDGET FOR FY 2012: M: \$4,473,000 O: \$2,598,000 T: \$7,071,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$261,000 - Funds will be used for limited operations and maintenance of structures for navigation water releases for the McClellan-Kerr Arkansas River Navigation System.

FRM: \$4,143,000 - Funds will be used for routine operations, maintenance, and inspections on structures that reduce flood risk to property and human life, including preventative, routine, and limited breakdown maintenance; operation and inspection of structures to insure projects are performing as designed; and collection of dam safety data.

REC: \$985,000 - Funds will be used for routine operations and maintenance activities related to recreation, including ranger patrols; mowing and other service contracts to maintain park and camping areas; utilities; and limited breakdown maintenance.

HYD: \$1,403,000 - Funds will be used for routine operations and maintenance activities required to keep the powerhouse and associated equipment operating efficiently, including operation of generating units and auxiliary equipment; performing preventative, routine, and limited breakdown maintenance on equipment; and inspecting equipment for suitability of service.

ES: \$274,000 - Funds will be used for routine environmental compliance activities, including monitoring of threatened and endangered species; protection of significant cultural resources; water quality monitoring; natural resources management; invasive species control; public education programs; and NEPA compliance activities.

WS: \$5,000 - Funds will be used to monitor water usage; manage current water storage agreements; and track water storage contract billing and payments.

OTHER INFORMATION: None.

Division: SWD District: SWT Project Name: Keystone Lake, OK

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Lake Kemp, TX

AUTHORIZATION: Flood Control Act of 1962

LOCATION AND DESCRIPTION: Lake Kemp is located on the Wichita River at river mile 126.7, about 40 miles southwest of the town of Wichita Falls in Wichita County, Texas. This is a multi-purpose project with flood control and conservation outputs. The project consists of a rolled earth-filled embankment and spillway having a total length of 8,890 feet and rising to a maximum height of 115 feet above the streambed. At top of flood control pool the lake covers 15,590 acres.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

PRESIDENT'S BUDGET FOR FY 2011: \$467,000

BUDGET FOR FY 2012: M: \$35,000 O: \$148,000 T: \$183,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$183,000 - Funds will be used for routine operations, maintenance, and inspections on structures that reduce flood risk to property and human life, including preventative, routine, and limited breakdown maintenance; operation and inspection of structures to insure projects are performing as designed; and collection of dam safety data.

REC: N/A

HYD: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None.

Division: SWD District: SWT Project Name: Lake Kemp, TX

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Lavon Lake, TX

AUTHORIZATION: River and Harbor Act of 1945 and the Flood Control Acts of 1946 and 1962

LOCATION AND DESCRIPTION: Lavon Lake is located in Collin County, on the East Fork of the Trinity River, about 22 miles northeast of the city of Dallas, Texas. The project consists of an earth embankment, a gate-controlled concrete spillway with twelve tainter gates, and five gate controlled conduits. Flood control storage is 291,600 acre-feet and water supply storage is 443,800 acre-feet. Nineteen recreation areas comprise 2,834 acres. 2010 visitation totaled 5,563,228 visitor hours.

RECOVERY ACT ALLOCATIONS TO DATE: \$2,413,000

PRESIDENT'S BUDGET FOR FY 2011: \$3,135,000

BUDGET FOR FY 2012: M: \$701,000 O: \$2,361,000 T: \$3,062,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$1,278,000 - Funds will be used to operate and maintain dams, levees, and other flood risk reduction facilities.

REC: \$1,568,000 - Funds will be used to operate and maintain parks and other public use areas.

HYD: N/A

ES: \$183,000 - Funds will be used to identify, maintain, and protect natural and cultural resources.

WS: \$33,000 - Funds will be used to monitor water usage; manage current water storage agreements; and track water storage contract billing and payments.

OTHER INFORMATION: None.

Division: SWD District: SWF

Project Name: Lavon Lake, TX

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Lewisville Dam, TX

AUTHORIZATION: River and Harbor Act of 1945

LOCATION AND DESCRIPTION: Lewisville Dam is located in Denton County on the Elm Fork of the Trinity River, 30 river miles above its confluence with the Trinity River, and 22 miles northwest of the city of Dallas, Texas. The project consists of a rolled earthfill dam, 32,888 feet in length, with a 16-foot diameter flood conduit, controlled by three (6.5-foot x 13-foot) broom-type gates and a 560-foot concrete spillway. Flood control storage capacity is 340,800 acre-feet and conservation/water supply storage is 598,400 acre-feet. Lewisville Dam has twenty-five recreation areas comprising 4,014 acres. 2010 visitation totaled 15,142,130 visitor hours.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

PRESIDENT'S BUDGET FOR FY 2011: \$3,542,000

BUDGET FOR FY 2012: M: \$573,000 O: \$2,626,000 T: \$3,199,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$1,635,000 - Funds will be used to operate and maintain dams, levees, and other flood risk reduction facilities.

REC: \$1,290,000 - Funds will be used to operate and maintain parks and other public use areas.

HYD: N/A

ES: \$233,000 - Funds will be used to identify, maintain, and protect natural and cultural resources.

WS: \$41,000 - Funds will be used to monitor water usage; manage current water storage agreements; and track water storage contract billing and payments.

OTHER INFORMATION: None.

Division: SWD District: SWF

Project Name: Lewisville Dam, TX

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Marion Lake, KS

AUTHORIZATION: Flood Control Act of 1950

LOCATION AND DESCRIPTION: Marion Lake is located on the Cottonwood River at river mile 126.7, about 3 miles northwest of the town of Marion in Marion County, Kansas. This is a multi-purpose project with flood control, water supply, water quality, and recreation outputs. The project consists of an 8,375 foot long rolled earth-filled embankment with a gate-controlled, concrete gravity ogee weir containing three 40x40 foot tainter gates. At conservation pool the lake covers 6,210 acres.

RECOVERY ACT ALLOCATIONS TO DATE: \$9,084,000

PRESIDENT'S BUDGET FOR FY 2011: \$1,613,000

BUDGET FOR FY 2012: M: \$284,000 O: \$1,501,000 T: \$1,785,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$1,012,000 - Funds will be used for routine operations, maintenance, and inspections on structures that reduce flood risk to property and human life, including preventative, routine, and limited breakdown maintenance; operation and inspection of structures to insure projects are performing as designed; and collection of dam safety data.

REC: \$711,000 - Funds will be used for routine operations and maintenance activities related to recreation, including ranger patrols; mowing and other service contracts to maintain park and camping areas; utilities; and break-down maintenance.

HYD: N/A

ES: \$52,000 - Funds will be used for routine environmental compliance activities, including monitoring of threatened and endangered species; protection of significant cultural resources; water quality monitoring; natural resources management; invasive species control; public education programs; and NEPA compliance activities.

WS: \$10,000 - Funds will be used to monitor water usage; manage current water storage agreements; and track water storage contract billing and payments.

OTHER INFORMATION: None.

Division: SWD District: SWT Project Name: Marion Lake, KS

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Matagorda Ship Channel, TX

AUTHORIZATION: House Document 388, 84th Congress, 2nd Session

LOCATION AND DESCRIPTION: The project consists of a 38' deep X 300' wide entrance channel through a jettied entrance and a 36' draft X 200' wide main channel that extends 25.2 miles and terminates at a 1000' X 1000' wide turning basin at Point Comfort. The navigation project is located in the vicinities of Port O'Connor, Port Lavaca, and Point Comfort in Matagorda, Calhoun Counties, Texas.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

PRESIDENT'S BUDGET FOR FY 2011: \$3,024,000

BUDGET FOR FY 2012: M: \$4,307,000 O: \$0 T: \$4,307,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$4,307,000 – Activities include dredging the Gallinipper Point to Point Comfort Matagorda Ship Channel to project depth only and continuing the Jetty Evaluation Study. These funds would improve navigation performance and reliability and would provide for 3 months level of service at the authorized project depth.

FRM: NA

REC: NA

HYD: NA

ES: NA

WS: NA

OTHER INFORMATION: None.

Division: SWD District: SWG Project Name: Matagorda Ship Channel, TX

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: McClellan-Kerr Arkansas River Navigation System, AR

AUTHORIZATION: River and Harbor Act of 1946

LOCATION AND DESCRIPTION: The 445-mile long McClellan-Kerr Arkansas River Navigation System (MKARNS) consists of 18 locks and dams, providing a 9-foot deep inland navigation channel from the Mississippi River to Catoosa, Oklahoma. The system includes the Arkansas, White and Verdigris Rivers, and the authorized purposes include navigation, environmental stewardship and recreation.

RECOVERY ACT ALLOCATIONS TO DATE: \$55,618,000

PRESIDENT'S BUDGET FOR FY 2011: \$33,553,000

BUDGET FOR FY 2012: M: \$12,263,000 O: \$14,347,000 T: \$26,610,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$21,674,000 – Funds will be used for routine operations and maintenance for navigation required for pool regulation and lock operations; critical fleet maintenance support; perform failure diagnostics and repairs; perform dam safety monitoring; channel maintenance to include dredging; and limited repair of structures; annual periodic inspections; and critical cyclical maintenance. These funds would improve navigation performance by increasing the availability and reliability of the system and provide for decreased future repair costs due to continual deferred maintenance.

FRM: N/A

REC: \$4,571,000 – Funds will be used for routine operations and maintenance for recreation; implementation of law enforcement agreements; perform water management analysis (control and quality); real estate management; and environmental compliance; and water management of water control data systems.

HYD: N/A

ES: \$365,000 – Funds will be used for routine operations and maintenance for environmental stewardship; monitoring and control of invasive species; managing efforts to preserve historic, cultural and natural aspects in accordance with the National Environmental Policy Act; habitat sustainability and monitoring of interior least terns; and prescribed burning.

WS: N/A

OTHER INFORMATION: None.

Division: SWD District: SWL Project Name: McClellan-Kerr AR River Nav. System, AR

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: McClellan-Kerr Arkansas River Navigation System, OK

AUTHORIZATION: River and Harbor Act of 1946

LOCATION AND DESCRIPTION: The McClellan-Kerr Arkansas River Navigation System provides a route from the Mississippi River through Arkansas and Oklahoma to the head of navigation at the Port of Catoosa near Tulsa, Oklahoma. The navigation channel has a minimum depth of 9 feet and minimum widths of 250 feet on the Arkansas River and 150 feet on the Verdigris River. Total length of the Tulsa District portion of the system is 137 navigation miles. The three locks on the project have chambers that are 110x600 feet in size with 20-21 foot normal lifts.

RECOVERY ACT ALLOCATIONS TO DATE: \$11,749,000

PRESIDENT'S BUDGET FOR FY 2011: \$5,794,000

BUDGET FOR FY 2012: M: \$2,001,000 O: \$4,826,000 T: \$6,827,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$6,441,000 - Funds will be used for routine operations and maintenance for navigation, including critical fleet maintenance support; channel dredging and upland disposal of dredged material; navigation portion of joint costs for dam safety data; implementation of risk reduction measures; and critical lock and dam inspections.

FRM: N/A

REC: \$326,000 - Funds will be used for routine operations and maintenance activities related to recreation, including ranger patrols; mowing and other service contracts to maintain park and camping areas; utilities; and limited breakdown maintenance.

HYD: N/A

ES: \$60,000 - Funds will be used for routine environmental compliance activities, including monitoring of threatened and endangered species; protection of significant cultural resources; water quality monitoring; natural resources management; invasive species control; public education programs; and NEPA compliance activities.

WS: N/A

OTHER INFORMATION: None.

Division: SWD District: SWT Project Name: McClellan-Kerr Arkansas River Navigation System, OK

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Millwood Lake, AR

AUTHORIZATION: Flood Control Act of 1946 as modified by the Flood Control Act of 1958

LOCATION AND DESCRIPTION: Millwood Lake is located on the Little River, Ashdown, Arkansas. The lake was constructed for the primary purpose of flood damage reduction.

RECOVERY ACT ALLOCATIONS TO DATE: \$78,000

PRESIDENT'S BUDGET FOR FY 2011: \$4,802,000

BUDGET FOR FY 2012: M: \$639,000 **O:** \$1,919,000 **T:** \$2,558,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$1,684,000 – Funds will be used for routine operations and maintenance for flood risk management; essential inspection and maintenance of FRM structures and equipment; routine operation of dam, reservoir, service facilities and permanent operating equipment; periodic inspection of vehicle bridges; maintenance of tractor slide gates, hoists, overhead crane and emergency generator; and repair Okay Levee and replace submersible pump. These funds would improve flood risk management performance by reducing the risk of failure, flooding, loss of life and environmental damage, and providing for increased efficiency and lower future repair costs.

REC: \$749,000 – Funds will be used for routine operations and maintenance for recreation; implementation of law enforcement agreements; perform water management analysis (control and quality); real estate management; environmental compliance; and water management of water control data systems.

HYD: N/A

ES: \$116,000 – Funds will be used for routine operations and maintenance for environmental stewardship; complete prescribed burning; stump grinding; wildlife habitat creation plots; encroachment detection and mitigation; boundary inspection and maintenance; monitoring and protection of known archeological resources; and identification and protection of endangered species in accordance with the Endangered Species Act.

WS: \$9,000 – Funds will be used to monitor water usage; manage current water storage agreements; and track water storage contract billing and payments.

OTHER INFORMATION: None.

Division: SWD

District: SWL

Project Name: Millwood Lake, AR

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Navarro Mills Lake, TX

AUTHORIZATION: Flood Control Act of 1954

LOCATION AND DESCRIPTION: Navarro Mills Lake is located in Navarro County on Richland Creek, Trinity River Basin, and is 16 miles southwest of the city of Corsicana, Texas. The project consists of an earthfill dam, a controlled spillway using six tainter gates and two conduits controlled by slide gates. Flood storage capacity is 149,200 acre-feet. Six recreation areas comprise 1,195 acres. 2010 visitation totaled 5,256,095 visitor hours.

RECOVERY ACT ALLOCATIONS TO DATE: \$10,464,000

PRESIDENT'S BUDGET FOR FY 2011: \$2,767,000

BUDGET FOR FY 2012: M: \$853,000 O: \$2,014,000 T: \$2,867,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$1,622,000 - Funds will be used to operate and maintain dams, levees, and other flood risk reduction facilities.

REC: \$1,121,000 - Funds will be used to operate and maintain parks and other public use areas.

HYD: N/A

ES: \$87,000 - Funds will be used to identify, maintain, and protect natural and cultural resources.

WS: \$37,000 - Funds will be used to monitor water usage; manage current water storage agreements; and track water storage contract billing and payments.

OTHER INFORMATION: None.

Division: SWD District: SWF

Project Name: Navarro Mills Lake, TX

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Nimrod Lake, AR

AUTHORIZATION: Flood Control Act of 1938

LOCATION AND DESCRIPTION: The project is located in Yell and Perry Counties, Arkansas. Nimrod Lake is located on the Fourche LaFave River, Plainview, Arkansas. The primary purpose of the project is flood damage reduction.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

PRESIDENT'S BUDGET FOR FY 2011: \$1,957,000

BUDGET FOR FY 2012: M: \$523,000 O: \$1,659,000 T: \$2,182,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$1,435,000 – Funds will be used for routine operations and maintenance for flood risk management of the dam, reservoir, service facilities, and permanent operating equipment; and maintenance of 2 Howell-Bunger valves and 7 sluice (slide) gates, hoists, overhead crane, and emergency generator. These funds would improve flood risk management performance by reducing the risk of failure, flooding, loss of life and environmental damage, provide for increased efficiency, and lower future repair costs.

REC: \$513,000 – Funds will be used for routine operations and maintenance for recreation; implementation of law enforcement agreements; perform water management analysis (control and quality); real estate management; environmental compliance; and water management of water control data systems.

HYD: N/A

ES: \$223,000 – Funds will be used for routine operations and maintenance for environmental stewardship; sustain existing forest, fish, wildlife and other natural resources; ensure historical, archeological and cultural resources are protected from vandalism; and management and operations to support special status species and endangered species in accordance with the Endangered Species Act.

WS: \$4,000 – Funds will be used to monitor water usage; manage current water storage agreements; and track water storage contract billing and payments.

OTHER INFORMATION: None.

Division: SWD

District: SWL

Project Name: Nimrod Lake, AR

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Norfolk Lake, AR

AUTHORIZATION: Flood Control Act of 1938

LOCATION AND DESCRIPTION: Norfolk Lake is located in Baxter County, Arkansas and Ozark County, Missouri. Norfolk Lake is one of the five multiple-purpose projects in the White River Basin constructed for flood damage reduction and the generation of hydropower. The project contains two 40,250 kW hydropower generation units.

RECOVERY ACT ALLOCATIONS TO DATE: \$1,675,000

PRESIDENT'S BUDGET FOR FY 2011: \$6,224,000

BUDGET FOR FY 2012: M: \$5,870,000 **O:** \$3,221,000 **T:** \$9,091,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$6,455,000 – Funds will be used for routine operations and maintenance for flood risk management; cyclical maintenance of 12 tainter gates, sluice gates, overhead crane, and emergency generator; repair of substandard girder flange welds; and clean, refurbish and paint 3 of the 12 tainter gates, trunnion arms, side seals and operating machinery; and critical routine operations and maintenance for the joint costs associated with the dam, powerplant and project. These funds would improve flood risk management performance by reducing the risk of failure, flooding, loss of life and environmental damage, provide for increased efficiency, and lower future repair costs.

REC: \$1,254,000 – Funds will be used for routine operations and maintenance for recreation; implementation of law enforcement agreements; perform water management analysis (control and quality); real estate management; and environmental compliance; and water management of water control data systems.

HYD: \$1,155,000 – Funds will be used for routine operations and maintenance for hydropower generations and powerplant equipment; routine operations and maintenance of joint operations of powerplant and dam components; encroachment resolutions; and compliance with NERC/FERC reliability standards. These funds would improve hydropower performance, reduce loss of power production, increase unit availability, reduce the chance of long term outages and provide revenue to the Treasury.

ES: \$223,000 – Funds will be used for routine operations and maintenance for environmental stewardship; provides protection, monitoring and management of project natural resources; complies with the Endangered Species Act; complies with the statutory mandates of the Forest Cover Act; development of resource management plans; and complies with Archeological Resources Protection Act.

WS: \$4,000 – Funds will be used to monitor water usage; manage current water storage agreements; and track water storage contract billing and payments.

OTHER INFORMATION: None.

Division: SWD

District: SWL

Project Name: Norfolk Lake, AR

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: North San Gabriel Dam and Lake Georgetown, TX

AUTHORIZATION: Flood Control Acts of 1954 and 1962

LOCATION AND DESCRIPTION: The North San Gabriel Dam and Lake Georgetown are located on the North Fork of the San Gabriel River in Williamson County, about 3.5 miles west of the city of Georgetown, Texas. The project consists of a rockfill dam with impervious earth core. Flood control outlet works include two hydraulically operated gates. Conservation/water supply storage is 29,200 acre-feet and flood control storage capacity is 93,700 acre-feet. Five recreation areas comprise 1,638 acres. 2010 visitation totaled 3,339,665 visitor hours.

RECOVERY ACT ALLOCATIONS TO DATE: \$1,545,000

PRESIDENT'S BUDGET FOR FY 2011: \$2,536,000

BUDGET FOR FY 2012: M: \$416,000 O: \$2,031,000 T: \$2,447,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$1,199,000 - Funds will be used to operate and maintain dams, levees, and other flood risk reduction facilities.

REC: \$1,034,000 - Funds will be used to operate and maintain parks and other public use areas.

HYD: N/A

ES: \$189,000 - Funds will be used to identify, maintain, and protect natural and cultural resources.

WS: \$25,000 - Funds will be used to monitor water usage; manage current water storage agreements; and track water storage contract billing and payments.

OTHER INFORMATION: None.

Division: SWD District: SWF

Project Name: North San Gabriel Dam and Lake
Georgetown, TX

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: O. C. Fisher Dam and Lake, TX

AUTHORIZATION: Flood Control Acts of 1941 and 1944

LOCATION AND DESCRIPTION: O. C. Fisher Dam and Lake is located in Tom Green County, on the North Concho River, near the city of San Angelo, Texas. The project consists of an earth embankment, an uncontrolled spillway, gate-controlled intakes, and two flood control conduits. Flood control storage is 276,900 acre-feet and water supply storage is 79,500 acre-feet. Seven recreation areas comprise 4,710 acres. 2010 visitation totaled 556,200 visitor hours.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

PRESIDENT'S BUDGET FOR FY 2011: \$1,373,000

BUDGET FOR FY 2012: M: \$1,149,000 O: \$653,000 T: \$1,802,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$1,645,000 - Funds will be used to operate and maintain dams, levees, and other flood risk reduction facilities.

REC: \$78,000 - Funds will be used to operate and maintain parks and other public use areas.

HYD: N/A

ES: \$51,000 - Funds will be used to identify, maintain, and protect natural and cultural resources.

WS: \$28,000 - Funds will be used to monitor water usage; manage current water storage agreements; and track water storage contract billing and payments.

OTHER INFORMATION: None.

Division: SWD

District: SWF

Project Name: O. C. Fisher Dam and Lake, TX

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Oologah Lake, OK

AUTHORIZATION: Flood Control Act of 1938

LOCATION AND DESCRIPTION: Oologah Lake is located on the Verdigris River at river mile 90.2, about 2 miles southeast of the town of Oologah in Rogers County, Oklahoma. This is a multi-purpose project with flood control, water supply, navigation, recreation, and fish and wildlife outputs. The project consists of a 4,000 foot long rolled earth-filled embankment with a gate controlled, modified concrete gravity ogee weir spillway with seven 40x21 foot high radial gates. At conservation pool the lake covers 31,043 acres.

RECOVERY ACT ALLOCATIONS TO DATE: \$1,892,000

PRESIDENT'S BUDGET FOR FY 2011: \$2,089,000

BUDGET FOR FY 2012: M: \$2,412,000 O: \$1,957,000 T: \$4,369,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$3,202,000 - Funds will be used for routine operations, maintenance, and inspections on structures that reduce flood risk to property and human life, including preventative, routine, and limited breakdown maintenance; operation and inspection of structures to insure projects are performing as designed; and collection of dam safety data.

REC: \$1,053,000 - Funds will be used for routine operations and maintenance activities related to recreation, including ranger patrols; mowing and other service contracts to maintain park and camping areas; utilities; and breakdown maintenance.

HYD: N/A

ES: \$90,000 - Funds will be used for routine environmental compliance activities, including monitoring of threatened and endangered species; protection of significant cultural resources; water quality monitoring; natural resources management; invasive species control; public education programs; and NEPA compliance activities.

WS: \$24,000 - Funds will be used to monitor water usage; manage current water storage agreements; and track water storage contract billing and payments.

OTHER INFORMATION: None.

Division: SWD District: SWT Project Name: Oologah Lake, OK

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Optima Lake, OK

AUTHORIZATION: Flood Control Act of 1936 as amended by the Flood Control Act of 1950

LOCATION AND DESCRIPTION: Optima Lake is located on the North Canadian River at river mile 623.2, about 4.5 miles northeast of the town of Hardesty in Texas County, Oklahoma. This is a multi-purpose project with flood control, water supply, recreation, and fish and wildlife outputs. The project consists of a 16,900 foot long rolled earth-filled embankment with an uncontrolled emergency spillway. At conservation pool the lake covers 5,340 acres.

RECOVERY ACT ALLOCATIONS TO DATE: \$213,000

PRESIDENT'S BUDGET FOR FY 2011: \$197,000

BUDGET FOR FY 2012: M: \$32,000 O: \$0 T: \$32,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$32,000 - Funds will be used for minimal maintenance and inspection of project structures as required by regulation and sound engineering judgment.

REC: N/A

HYD: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Funds are sufficient to ensure the safety, security, and integrity of the project. In order to reduce annual Civil Works O&M costs, 12,400 acres of the 13,250 acres of Federal lands at Optima Lake are being managed by the U.S. Fish and Wildlife Service and the Oklahoma Department of Wildlife Conservation under licensing and cooperative agreements.

Division: SWD District: SWT Project Name: Optima Lake, OK

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Ozark-Jeta Taylor Lock & Dam, AR

AUTHORIZATION: River and Harbor Act of 1946

LOCATION AND DESCRIPTION: This project is located in Franklin, Johnson, and Crawford Counties, Arkansas. Ozark-Jeta Taylor Lock and Dam is located on the McClellan-Kerr Arkansas River Navigation System and the project purposes include recreation, hydropower, and navigation. The project contains five inclined axis 20,000 kW hydropower generator units.

RECOVERY ACT ALLOCATIONS TO DATE: \$4,332,000

PRESIDENT'S BUDGET FOR FY 2011: \$5,485,000

BUDGET FOR FY 2012: M: \$2,205,000 O: \$3,859,000 T: \$6,064,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$2,932,000 – Funds will be used for routine operations and maintenance for navigation required for pool regulation and lock operations; perform failure diagnostics and repairs; channel maintenance to include dredging; critical cyclical maintenance; and limited repair of structures. These funds would improve navigation performance by increasing the availability and reliability of the system and provide for decreased future repair costs due to continual deferred maintenance.

FRM: N/A

REC: \$1,248,000 – Funds will be used for routine operations and maintenance for recreation; implementation of law enforcement agreements; perform water management analysis (control and quality); real estate management; and environmental compliance; and water management of water control data systems.

HYD: \$1,778,000 – Funds will be used for routine operations and maintenance for hydropower generations and powerplant equipment; routine operations and maintenance of joint operations and powerplant and dam components; encroachment resolutions; and compliance with NERC/FERC reliability standards. These funds would improve hydropower performance by increasing unit availability, thus reducing long-term forced outages, and would provide for increased revenue to the Treasury.

ES: \$106,000 – Funds will be used for routine operations and maintenance for environmental stewardship; monitoring and protection of known archeological sites; compliance with the Endangered Species Act; identification and protection of nesting sites; habitat management and compliance; outgrant compliance; utilization inspections; and management activities.

WS: N/A

OTHER INFORMATION: None.

Division: SWD

District: SWL

Project Name: Ozark-Jeta Taylor Lock & Dam, AR

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Pat Mayse Lake, TX

AUTHORIZATION: Flood Control Act of 1962

LOCATION AND DESCRIPTION: Pat Mayse Lake is located at river mile 4.6 on Sanders Creek, a tributary of the Red River, about 12 miles north of the town of Paris in Lamar County, Texas. This is a multi-purpose project with flood control, water supply, recreation, and fish and wildlife outputs. The project consists of an 8,780 foot long rolled earth-filled embankment with an uncontrolled spillway. At conservation pool the lake covers 5,940 acres.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

PRESIDENT'S BUDGET FOR FY 2011: \$992,000

BUDGET FOR FY 2012: M: \$32,000 O: \$1,179,000 T: \$1,211,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$706,000 - Funds will be used for routine operations, maintenance, and inspections on structures that reduce flood risk to property and human life, including preventative, routine, and limited breakdown maintenance; operation and inspection of structures to insure projects are performing as designed; and collection of dam safety data.

REC: \$453,000 - Funds will be used for routine operations and maintenance activities related to recreation, including ranger patrols; mowing and other service contracts to maintain park and camping areas; utilities; and limited breakdown maintenance.

HYD: N/A

ES: \$42,000 - Funds will be used for routine environmental compliance activities, including monitoring of threatened and endangered species; protection of significant cultural resources; water quality monitoring; natural resources management; invasive species control; public education programs; and NEPA compliance activities.

WS: \$10,000 - Funds will be used to monitor water usage; manage current water storage agreements; and track water storage contract billing and payments.

OTHER INFORMATION: None.

Division: SWD District: SWT Project Name: Pat Mayse Lake, TX

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Pearson-Skubitz Big Hill Lake, KS

AUTHORIZATION: Flood Control Act of 1962

LOCATION AND DESCRIPTION: Pearson-Skubitz Big Hill Lake is located at river mile 33.3 on Big Hill Creek, a tributary of the Verdigris River, about 4.5 miles east of the town of Cherryvale in Labette County, Kansas. This is a multi-purpose project with flood control, water supply, recreation, and fish and wildlife outputs. The project consists of a rolled earth-filled embankment that is 3,902 feet long with a broad crested weir and two drop inlet structures. At conservation pool the lake covers 1,240 acres.

RECOVERY ACT ALLOCATIONS TO DATE: \$1,811,000

PRESIDENT'S BUDGET FOR FY 2011: \$1,332,000

BUDGET FOR FY 2012: M: \$99,000 O: \$1,224,000 T: \$1,323,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$619,000 - Funds will be used for routine operations, maintenance, and inspections on structures that reduce flood risk to property and human life, including preventative, routine, and limited breakdown maintenance; operation and inspection of structures to insure projects are performing as designed; and collection of dam safety data.

REC: \$661,000 - Funds will be used for routine operations and maintenance activities related to recreation, including ranger patrols; mowing and other service contracts to maintain park and camping areas; utilities; and break-down maintenance.

HYD: N/A

ES: \$25,000 - Funds will be used for routine environmental compliance activities, including monitoring of threatened and endangered species; protection of significant cultural resources; water quality monitoring; natural resources management; invasive species control; public education programs; and NEPA compliance activities.

WS: \$18,000 - Funds will be used to monitor water usage; manage current water storage agreements; and track water storage contract billing and payments.

OTHER INFORMATION: None.

Division: SWD District: SWT Project Name: Pearson-Skubitz Big Hill Lake, KS

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Pensacola Reservoir, Lake of the Cherokees, OK

AUTHORIZATION: Flood Control Act of 1941

LOCATION AND DESCRIPTION: Pensacola Reservoir, Lake of the Cherokees, is located on the Grand (Neosho) River at river mile 77.0 about 13 miles southeast of the town of Vinita in Mayes and Delaware Counties, Oklahoma. This is a multi-purpose project with hydroelectric power and flood control outputs. The project consists of a concrete, multiple-arch dam with gated spillways. The total length of the dam and spillways is 6,565 feet. The main spillway is equipped with twenty-one 36x25 foot tainter gates, while the two east spillways are equipped with twenty-one 37x15 foot tainter gates. A total of six 20,000 kW power generating units are located within the structure. At power pool the lake covers 46,500 acres.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

PRESIDENT'S BUDGET FOR FY 2011: \$167,000

BUDGET FOR FY 2012: M: \$0 O: \$128,000 T: \$128,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$128,000 - Funds will be used for routine operations, maintenance, and inspections on structures that reduce flood risk to property and human life, including preventative, routine, and limited breakdown maintenance; operation and inspection of structures to insure projects are performing as designed; and collection of dam safety data.

REC: N/A

HYD: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None.

Division: SWD District: SWT Project Name: Pensacola Reservoir, Lake of the Cherokees, OK

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Pine Creek Lake, OK

AUTHORIZATION: Flood Control Act of 1958

LOCATION AND DESCRIPTION: Pine Creek Lake is located on the Little River at river mile 145.3, about 5 miles northwest of the town of Wright City in McCurtain County, Oklahoma. This is a multi-purpose project with flood control, water supply, water quality, fish and wildlife, and recreation outputs. The project consists of a 7,712 foot long rolled earth-filled embankment with an uncontrolled, gravity ogee weir spillway. At conservation pool the lake covers 3,750 acres.

RECOVERY ACT ALLOCATIONS TO DATE: \$2,178,000

PRESIDENT'S BUDGET FOR FY 2011: \$1,032,000

BUDGET FOR FY 2012: M: \$235,000 O: \$1,019,000 T: \$1,254,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$843,000 - Funds will be used for routine operations, maintenance, and inspections on structures that reduce flood risk to property and human life, including preventative, routine, and limited breakdown maintenance; operation and inspection of structures to insure projects are performing as designed; and collection of dam safety data.

REC: \$361,000 - Funds will be used for routine operations and maintenance activities related to recreation, including ranger patrols; mowing and other service contracts to maintain park and camping areas; utilities; and breakdown maintenance.

HYD: N/A

ES: \$40,000 - Funds will be used for routine environmental compliance activities, including monitoring of threatened and endangered species; protection of significant cultural resources; water quality monitoring; natural resources management; invasive species control; public education programs; and NEPA compliance activities.

WS: \$10,000 - Funds will be used to monitor water usage; manage current water storage agreements; and track water storage contract billing and payments.

OTHER INFORMATION: None.

Division: SWD District: SWT Project Name: Pine Creek Lake, OK

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Proctor Lake, TX

AUTHORIZATION: Flood Control Act of 1954

LOCATION AND DESCRIPTION: Proctor Lake is located in Comanche County on the Leon River, about eight miles northeast of the city of Comanche, Texas. The project consists of an earthfill dam with concrete spillway, which is controlled by eleven tainter gates and two low flow conduits. Flood control storage is 314,800 acre-feet and water supply storage is 60,524 acre-feet. Four recreation areas comprise 1,210 acres. 2010 visitation totaled 2,263,894 visitor hours.

RECOVERY ACT ALLOCATIONS TO DATE: \$6,414,000

PRESIDENT'S BUDGET FOR FY 2011: \$2,336,000

BUDGET FOR FY 2012: M: \$1,677,000 O: \$1,849,000 T: \$3,526,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$2,463,000 - Funds will be used to operate and maintain dams, levees, and other flood risk reduction facilities; and repair and install additional piezometers.

REC: \$962,000 - Funds will be used to operate and maintain parks and other public use areas.

HYD: N/A

ES: \$68,000 - Funds will be used to identify, maintain, and protect natural and cultural resources.

WS: \$33,000 - Funds will be used to monitor water usage; manage current water storage agreements; and track water storage contract billing and payments.

OTHER INFORMATION: None.

Division: SWD District: SWF

Project Name: Proctor Lake, TX

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Ray Roberts Lake, TX

AUTHORIZATION: Flood Control Act of 1965

LOCATION AND DESCRIPTION: Ray Roberts Lake is located in Denton, Cook and Grayson Counties, near the city of Denton, Texas. The project consists of an earthfill dam, an uncontrolled spillway, and a gated conduit through the dam with two sluice gates. Flood control storage capacity is 52,400 acre-feet. Ten recreation areas comprise 3,810 acres. 2010 visitation totaled 20,149,953 visitor hours.

RECOVERY ACT ALLOCATIONS TO DATE: \$1,211,000

PRESIDENT'S BUDGET FOR FY 2011: \$1,525,000

BUDGET FOR FY 2012: M: \$981,000 O: \$941,000 \$1,922,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$1,709,000 - Funds will be used to operate and maintain dams, levees, and other flood risk reduction facilities.

REC: \$87,000 - Funds will be used to operate and maintain parks and other public use areas.

HYD: N/A

ES: \$97,000 - Funds will be used to identify, maintain, and protect natural and cultural resources.

WS: \$29,000 - Funds will be used to monitor water usage; manage current water storage agreements; and track water storage contract billing and payments.

OTHER INFORMATION: None.

Division: SWD District: SWF

Project Name: Ray Roberts Lake, TX

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Robert S. Kerr Lock and Dam and Reservoir, OK

AUTHORIZATION: River and Harbor Act of 1946

LOCATION AND DESCRIPTION: Robert S. Kerr Lock and Dam and Reservoir is located on the Arkansas River at navigation mile 336.2, about 8 miles south of the town of Sallisaw in LeFlore County, Oklahoma. This is a multi-purpose project with navigation, hydroelectric power, and recreation outputs. The project consists of a 7,230 foot long rolled earth-filled embankment with a concrete, gated ogee weir controlled spillway with eighteen 50x44 foot tainter gates. The lock is a single-lift Ohio River type with a 110x600 foot long chamber and a normal lift of 48 feet. The project contains four 27,500 kW hydropower generator units. At top of power pool the lake covers 43,796 acres.

RECOVERY ACT ALLOCATIONS TO DATE: \$4,692,000

PRESIDENT'S BUDGET FOR FY 2011: \$7,604,000

BUDGET FOR FY 2012: M: \$2,091,000 O: \$3,308,000 T: \$5,399,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$2,483,000 - funding provides for routine operations and maintenance for navigation, including critical fleet maintenance support; channel dredging and upland disposal of dredged material; navigation portion of joint costs for dam safety data; implementation of risk reduction measures; and critical lock and dam inspections.

FRM: N/A

REC: \$430,000 - Funds will be used for routine operations and maintenance activities related to recreation, including ranger patrols; mowing and other service contracts to maintain park and camping areas; utilities; and limited breakdown maintenance.

HYD: \$2,340,000 - Funds will be used for routine operations and maintenance activities required to keep the powerhouse and associated equipment operating efficiently, including operation of generating units and auxiliary equipment; performing preventative, routine, and limited breakdown maintenance on equipment; and inspecting equipment for suitability of service.

ES: \$146,000 - Funds will be used for routine environmental compliance activities, including monitoring of threatened and endangered species; protection of significant cultural resources; water quality monitoring; natural resources management; invasive species control; public education programs; and NEPA compliance activities.

WS: N/A

OTHER INFORMATION: None.

Division: SWD District: SWT Project Name: Robert S. Kerr Lock and Dam and Reservoir,

OK

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Sabine-Neches Waterway, TX

AUTHORIZATION: House Document 553, 87th Congress, 2nd Session

LOCATION AND DESCRIPTION: The Sabine-Neches Waterway (SNWW) is a 64 mile deep draft ship channel which extends from the 42-foot contour in the Gulf of Mexico through a jettied channel to Port Arthur, to Beaumont via the Neches River Channel, and to Orange via the north part of Sabine Lake and continues via the Sabine River Channel. The project is located in the vicinities of Beaumont, Port Arthur, Orange, and Sabine Pass in Jefferson and Orange Counties, Texas, and Cameron and Calcasieu Parishes, Louisiana.

RECOVERY ACT ALLOCATIONS TO DATE: \$15,765,000

PRESIDENT'S BUDGET FOR FY 2011: \$14,330,000

BUDGET FOR FY 2012: M: \$13,795,000 O: \$387,000 T: \$14,182,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR (by Business Line) FY 2012:

N: \$14,182,000 – Funding provides for routine operations and maintenance of the facilities at the Neches River Saltwater Barrier facilities, annual maintenance dredging of Port Arthur Canal and Turning Basin, and Outer Bar along the SNWW complex. These funds would improve navigation performance and reliability.

FRM: N/A

REC: N/A

HYD: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None.

Division: SWD District: SWG Project Name: Sabine-Neches Waterway, TX

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Sam Rayburn Dam and Reservoir, TX

AUTHORIZATION: River and Harbor Acts of 1945 and 1948

LOCATION AND DESCRIPTION: The Sam Rayburn Dam and Reservoir project is located in Angelina, San Augustine, Sabine, Nacogdoches, and Jasper Counties, on the Angelina River, about ten miles northwest of the city of Jasper, Texas. Features of the dam include: an earth embankment, combined concrete power intake and flood control outlet works, a labyrinth weir spillway, and two gate controlled conduits. Flood control storage capacity is 1,099,500 acre-feet, power pool storage is 1,446,500 acre-feet, and water supply storage is 43,000 acre-feet. Twenty-eight recreation areas comprise 3,151 acres. 2010 visitation totaled 16,522,375 visitor hours. The project contains two 30,000 kW hydropower generation units.

RECOVERY ACT ALLOCATIONS TO DATE: \$5,341,000

PRESIDENT'S BUDGET FOR FY 2011: \$6,396,000

BUDGET FOR FY 2012: M: \$1,162,000 **O:** \$3,883,000 **T:** \$5,045,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$494,000 - Funds will be used to operate and maintain dams, levees, and other flood risk reduction facilities.

REC: \$1,577,000 - Funds will be used to operate and maintain parks and other public use areas.

HYD: \$1,918,000 - Funds will be used to operate and maintain hydropower plants as designed.

ES: \$1,022,000 - Funds will be used to identify, maintain, and protect natural and cultural resources.

WS: \$34,000 - Funds will be used to monitor water usage; manage current water storage agreements; and track water storage contract billing and payments.

OTHER INFORMATION: None.

Division: SWD

District: SWF

Project Name: Sam Rayburn Dam and Reservoir, TX

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Sardis Lake, OK

AUTHORIZATION: Flood Control Act of 1962

LOCATION AND DESCRIPTION: Sardis Lake is located at river mile 2.8 on Jackfork Creek, a tributary of the Kiamichi River, about 2.5 miles north of the town of Clayton in Pushmataha County, Oklahoma. This is a multi-purpose project with flood control, water supply, recreation, and fish and wildlife outputs. The project consists of a 14,138 foot long rolled earth-filled embankment with an uncontrolled spillway and a gate tower with two 4x12 foot wheel gates. At conservation pool the lake covers 13,610 acres.

RECOVERY ACT ALLOCATIONS TO DATE: \$1,565,000

PRESIDENT'S BUDGET FOR FY 2011: \$1,130,000

BUDGET FOR FY 2012: M: \$109,000 O: \$893,000 T: \$1,002,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$689,000 - Funds will be used for routine operations, maintenance, and inspections on structures that reduce flood risk to property and human life, including preventative, routine, and limited breakdown maintenance; operation and inspection of structures to insure projects are performing as designed; and collection of dam safety data.

REC: \$249,000 - Funds will be used for routine operations and maintenance activities related to recreation, including ranger patrols; mowing and other service contracts to maintain park and camping areas; utilities; and breakdown maintenance.

HYD: N/A

ES: \$46,000 - Funds will be used for routine environmental compliance activities, including monitoring of threatened and endangered species; protection of significant cultural resources; water quality monitoring; natural resources management; invasive species control; public education programs; and NEPA compliance activities.

WS: \$18,000 - Funds will be used to monitor water usage; manage current water storage agreements; and track water storage contract billing and payments.

OTHER INFORMATION: None.

Division: SWD District: SWT Project Name: Sardis Lake, OK

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Skiatook Lake, OK

AUTHORIZATION: Flood Control Act of 1962

LOCATION AND DESCRIPTION: Skiatook Lake is located at river mile 14.3 on Hominy Creek, a tributary of Bird Creek, about 5 miles west of the town of Skiatook in Osage County, Oklahoma. This is a multi-purpose project with flood control, water supply, water quality control, recreation, and fish and wildlife outputs. The project consists of a 3,590 foot long rolled earth-filled embankment with an uncontrolled spillway and a gate tower with two 4x10 foot gates. At conservation pool the lake covers 10,190 acres.

RECOVERY ACT ALLOCATIONS TO DATE: \$1,263,000

PRESIDENT'S BUDGET FOR FY 2011: \$1,465,000

BUDGET FOR FY 2012: M: \$437,000 O: \$1,330,000 T: \$1,767,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$944,000 - Funds will be used for routine operations, maintenance, and inspections on structures that reduce flood risk to property and human life, including preventative, routine, and limited breakdown maintenance; operation and inspection of structures to insure projects are performing as designed; and collection of dam safety data.

REC: \$751,000 - Funds will be used for routine operations and maintenance activities related to recreation, including ranger patrols; mowing and other service contracts to maintain park and camping areas; utilities; and breakdown maintenance.

HYD: N/A

ES: \$48,000 - Funds will be used for routine environmental compliance activities, including monitoring of threatened and endangered species; protection of significant cultural resources; water quality monitoring; natural resources management; invasive species control; public education programs; and NEPA compliance activities.

WS: \$24,000 - Funds will be used to monitor water usage; manage current water storage agreements; and track water storage contract billing and payments.

OTHER INFORMATION: None.

Division: SWD District: SWT Project Name: Skiatook Lake, OK

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Somerville Lake, TX

AUTHORIZATION: Flood Control Act of 1954

LOCATION AND DESCRIPTION: Somerville Lake is located in Burleson, Lee and Washington Counties, on Yegua Creek, about two miles south of the city of Somerville, Texas. The project consists of an earthfill dam, a dike, an uncontrolled spillway, and one gate controlled outlet with gated conduit. Flood control storage capacity is 347,400 acre-feet and conservation/water supply storage is 158,900 acre-feet. Eleven recreation areas comprise 3,599 acres. 2010 visitation totaled 12,609,168 visitor hours.

RECOVERY ACT ALLOCATIONS TO DATE: \$14,147,000

PRESIDENT'S BUDGET FOR FY 2011: \$3,292,000

BUDGET FOR FY 2012: M: \$558,000 O: \$2,688,000 \$3,246,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$1,571,000 - Funds will be used to operate and maintain dams, levees, and other flood risk reduction facilities; replace vent tube in right gate valve; and repair/replace damaged seals on flood gate #2.

REC: \$1,447,000 - Funds will be used to operate and maintain parks and other public use areas.

HYD: N/A

ES: \$200,000 - Funds will be used to identify, maintain, and protect natural and cultural resources.

WS: \$28,000 - Funds will be used to monitor water usage; manage current water storage agreements; and track water storage contract billing and payments.

OTHER INFORMATION: None.

Division: SWD District: SWF

Project Name: Somerville Lake, TX

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Stillhouse Hollow Dam, TX

AUTHORIZATION: Flood Control Act of 1954

LOCATION AND DESCRIPTION: Stillhouse Hollow Lake is located in Bell County on the Lampasas River, 16 river miles upstream from its confluence with the Little River, and five miles southwest of the city of Belton. The project consists of an earthfill flood control dam, a dike section, and an uncontrolled spillway. Flood control storage capacity is 394,700 acre-feet and conservation/water supply storage is 232,000 acre-feet. Controlled flood releases are accomplished through two hydraulically operated floodgates. Seven recreation areas comprise 2,089 acres. 2010 visitation totaled 1,096,938 visitor hours.

RECOVERY ACT ALLOCATIONS TO DATE: \$564,000

PRESIDENT'S BUDGET FOR FY 2011: \$2,150,000

BUDGET FOR FY 2012: M: \$372,000 **O:** \$1,715,000 **T:** \$2,087,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$817,000 - Funds will be used to operate and maintain dams, levees, and other flood risk reduction facilities.

REC: \$1,069,000 - Funds will be used to operate and maintain parks and other public use areas.

HYD: N/A

ES: \$176,000 - Funds will be used to identify, maintain, and protect natural and cultural resources.

WS: \$25,000 - Funds will be used to monitor water usage; manage current water storage agreements; and track water storage contract billing and payments.

OTHER INFORMATION: None.

Division: SWD District: SWF

Project Name: Stillhouse Hollow Dam, TX

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Table Rock Lake, MO & AR

AUTHORIZATION: Flood Control Act of 1938 as amended by the Flood Control Acts of 1941 and 1944

LOCATION AND DESCRIPTION: Table Rock Lake is located in Branson, Missouri and is one of five multiple-purpose projects within the White River Basin. The primary purpose of the lake is power generation. The project contains four 50,000 kW hydropower generator units.

RECOVERY ACT ALLOCATIONS TO DATE: \$14,374,000

PRESIDENT'S BUDGET FOR FY 2011: \$8,293,000

BUDGET FOR FY 2012: M: \$818,000 **O:** \$ 6,264,000 **T:** \$7,082,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$1,269,000 – Funds will be used for routine operations and maintenance for flood risk management; essential inspection and maintenance of FRM structures and equipment; routine operation of dam, reservoir, service facilities and permanent operating equipment; critical routine operations and maintenance for the joint costs associated with the dam, powerplant and project; maintenance of tainter gates, sluice gates, overhead crane, and emergency generator; periodic inspection of vehicular bridge; and foundation core and stability analysis. These funds would improve flood risk management performance by reducing the risk of failure, flooding, loss of life and environmental damage, provide increased efficiency, and lower future repair costs.

REC: \$2,321,000 – Funds will be used for routine operations and maintenance for recreation; implementation of law enforcement agreements; perform water management analysis (control and quality); real estate management; and environmental compliance; water management of water control data systems; and operation and maintenance of a visitor center.

HYD: \$ 2,797,000 – Funds will be used for routine operations and maintenance for hydropower generations and powerplant equipment; routine operations and maintenance of joint operations of powerplant and dam components; encroachment resolutions; and compliance with NERC/FERC reliability standards. These funds would improve hydropower performance, reduce loss of power production, increase unit availability, reduce the chance of long term outages and provide revenue to the Treasury.

ES: \$692,000 – Funds will be used for routine operations and maintenance for environmental stewardship; management of an extensive shoreline program; compliance with archeological mandates; compliance with the Endangered Species Act; regulate permits in regards to dock inspections and placement; and maintain the fee take line boundary.

WS: \$3,000 – Funds will be used for routine operations and maintenance for water supply, to include monitoring water usage, billing and payment issues, and managing current contracts.

OTHER INFORMATION: None.

Division: SWD

District: SWL

Project Name: Table Rock Lake, MO & AR

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Tenkiller Ferry Lake, OK

AUTHORIZATION: Flood Control Act of 1938

LOCATION AND DESCRIPTION: Tenkiller Ferry Lake is located on the Illinois River at river mile 12.8, about 22 miles southeast of the town of Muskogee in Cherokee and Sequoyah Counties, Oklahoma. This is a multi-purpose project with flood control and hydroelectric power outputs. The project consists of a 3,000 foot long rolled earth-filled embankment with a concrete, gravity controlled spillway with ten 50x25 foot tainter gates. The project contains two 19,550 kW hydropower generator units. At conservation pool the lake covers 12,900 acres.

RECOVERY ACT ALLOCATIONS TO DATE: \$2,533,000

PRESIDENT'S BUDGET FOR FY 2011: \$4,459,000

BUDGET FOR FY 2012: M: \$1,000,000 O: \$3,055,000 T: \$4,055,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$726,000 - Funds will be used for routine operations, maintenance, and inspections on structures that reduce flood risk to property and human life, including preventative, routine, and limited breakdown maintenance; operation and inspection of structures to insure projects are performing as designed; and collection of dam safety data.

REC: \$1,593,000 - Funds will be used for routine operations and maintenance activities related to recreation, including ranger patrols; mowing and other service contracts to maintain park and camping areas; utilities; and limited breakdown maintenance.

HYD: \$1,615,000 - Funds will be used for routine operations and maintenance activities required to keep the powerhouse and associated equipment operating efficiently, including operation of generating units and auxiliary equipment; performing preventative, routine, and limited breakdown maintenance on equipment; and inspecting equipment for suitability of service.

ES: \$102,000 - Funds will be used for routine environmental compliance activities, including monitoring of threatened and endangered species; protection of significant cultural resources; water quality monitoring; natural resources management; invasive species control; public education programs; and NEPA compliance activities.

WS: \$19,000 - Funds will be used to monitor water usage; manage current water storage agreements; and track water storage contract billing and payments.

OTHER INFORMATION: None.

Division: SWD District: SWT Project Name: Tenkiller Ferry Lake, OK

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Texas City Ship Channel, TX

AUTHORIZATION: House Document 427, 86th Congress, 2nd Session

LOCATION AND DESCRIPTION: The Texas City Channel (TCC) is a 40 ft channel that extends 9.4 miles from intersection with the Galveston Entrance Channel to the Port of Texas City. The construction project to deepen ship channel to 45-foot was initiated in January 2009 with the deepening of the Main Turning Basin and will continue into 2011.

RECOVERY ACT ALLOCATIONS TO DATE: \$2,863,000

PRESIDENT'S BUDGET FOR FY 2011: \$1,436,000

BUDGET FOR FY 2012: M: \$4,667,000 **O:** \$0 **T:** \$4,667,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$4,667,000 – Funds will be used to perform the first maintenance dredging of the 45 ft Main Channel and Turning Basin after the new work deepening of the channel. Funding will allow dredging to authorized project depth and advance maintenance.

FRM: N/A

REC: N/A

HYD: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None.

Division: SWD District: SWG

Project Name: Texas City Ship Channel, TX

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Texas Water Allocation Assessment

AUTHORIZATION: Flood Control Act of 1970

LOCATION AND DESCRIPTION: The study area includes the state of Texas. The purpose of the study is to identify potential opportunities for the Corps to assist the state in meeting future water needs through immediate technical assistance, and/or through initiation of studies leading to possible implementation of cost-shared water resources projects.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

PRESIDENT'S BUDGET FOR FY 2011: \$100,000

BUDGET FOR FY 2012: M: \$0 O: \$100,000 T: \$100,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FDR: N/A

REC: N/A

HYD: N/A

ES: N/A

WS: \$100,000 - Funds will be used to continue support of state water planning initiatives currently underway, including Allens Creek Habitat Assessment and In-stream Flow Study, Gibbons Creek H&H Modeling and Mitigation Banking Assessments.

OTHER INFORMATION: Studies conducted under the TWAA program include hydrologic and hydraulic modeling, ground- and surface-water modeling, in-stream flow analyses, reservoir system assessments, reservoir yield studies, water-rights analysis modeling, reallocation guidance, basin studies, environmental assessments, hydrographic surveys, and obtaining digital orthophotos and digital elevation models.

Division: SWD

District: SWF

Project Name: Texas Water Allocation Assessment

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Toronto Lake, KS

AUTHORIZATION: Flood Control Act of 1941

LOCATION AND DESCRIPTION: Toronto Lake is located on the Verdigris River at river mile 271.5, about 4 miles southeast of the town of Toronto in Woodson County, Kansas. This is a multi-purpose project with flood control, water supply, water quality, fish and wildlife, and recreation outputs. The project consists of a rolled impervious and random earth-filled embankment that is 4,712 feet long with a gate-controlled, concrete, gravity, ogee weir with eight 40x25 foot tainter gates. At conservation pool the lake covers 2,660 acres.

RECOVERY ACT ALLOCATIONS TO DATE: \$3,929,000

PRESIDENT'S BUDGET FOR FY 2011: \$652,000

BUDGET FOR FY 2012: M: \$166,000 O: \$533,000 T: \$699,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$618,000 - Funds will be used for routine operations, maintenance, and inspections on structures that reduce flood risk to property and human life, including preventative, routine, and limited breakdown maintenance; operation and inspection of structures to insure projects are performing as designed; and collection of dam safety data.

REC: \$22,000 - Funds will be used for routine operations and maintenance activities related to recreation, including ranger patrols; mowing and other service contracts to maintain park and camping areas; utilities; and breakdown maintenance.

HYD: N/A

ES: \$54,000 - Funds will be used for routine environmental compliance activities, including monitoring of threatened and endangered species; protection of significant cultural resources; water quality monitoring; natural resources management; invasive species control; public education programs; and NEPA compliance activities.

WS: \$5,000 - Funds will be used to monitor water usage; manage current water storage agreements; and track water storage contract billing and payments.

OTHER INFORMATION: None.

Division: SWD District: SWT Project Name: Toronto Lake, KS

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Town Bluff Dam, B.A.Steinhagen Lake, and the Robert Douglas Willis Hydropower Project, TX

AUTHORIZATION: River and Harbor Act of 1945

LOCATION AND DESCRIPTION: Town Bluff Dam, B. A. Steinhagen Lake and the Robert Douglas Willis Hydropower Project are located in Tyler and Jasper Counties, on the Neches River, one-half mile from the city of Town Bluff, Texas. The project consists of an earth fill dam (6,698 feet long and 45 feet high), which serves as an uncontrolled spillway covered with six inches of reinforced concrete. The gated spillway has six (40-foot x 35-foot gates) and two (4-foot x 6-foot) gate-controlled conduit outlet facilities. Town Bluff serves as a re-regulating dam for Sam Rayburn power generation water releases. Lower Neches Valley Authority (LNVA) is permitted to make withdrawals not to exceed 2,000 CFS from Town Bluff. The lake has ten recreation areas comprising 2,185 acres. 2010 visitation totaled 4,522,217 visitor hours. The project contains two 3,700 kW hydropower generation units.

RECOVERY ACT ALLOCATIONS TO DATE: \$575,000

PRESIDENT'S BUDGET FOR FY 2011: \$2,666,000

BUDGET FOR FY 2012: M: \$1,040,000 **O:** \$1,895,000 **T:** \$2,935,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$1,731,000 - Funds will be used to operate and maintain dams, levees, and other flood risk reduction facilities.

REC: \$611,000 - Funds will be used to operate and maintain parks and other public use areas.

HYD: \$384,000 - Funds will be used to operate and maintain hydropower plants as designed.

ES: \$209,000 - Funds will be used to identify, maintain, and protect natural and cultural resources.

WS: N/A

OTHER INFORMATION: None.

Division: SWD

District: SWF

Project Name: Town Bluff Dam, B.A.Steinhagen Lake,
and the Robert Douglas Willis Hydropower Project, TX

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Waco Lake, TX

AUTHORIZATION: Flood Control Act of 1954

LOCATION AND DESCRIPTION: Waco Lake is located in McLennan County on the Bosque River, 4.6 miles above its confluence with the Brazos River, and two miles west of Waco, Texas. The project consists of a rolled earth fill dam 24,618 feet long, 140 feet high, controlled spillway 560 feet long, controlled by fourteen (40-foot X 35-foot) tainter gates. One 20-foot diameter conduit in outlet works is controlled by three (6-foot, 8-inch x 20 foot) broom type tractor sluice gates, flood control storage capacity is 573,300 acre-feet and conservation/water supply storage is 135,700 acre-feet. Eleven recreation areas comprise 3,599 acres. 2010 visitation totaled 3,181,296 visitor hours.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

PRESIDENT'S BUDGET FOR FY 2011: \$3,131,000

BUDGET FOR FY 2012: M: \$617,000 O: \$2,418,000 T: \$3,035,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$1,561,000 - Funds will be used to operate and maintain dams, levees, and other flood risk reduction facilities.

REC: \$1,266,000 - Funds will be used to operate and maintain parks and other public use areas.

HYD: N/A

ES: \$181,000 - Funds will be used to identify, maintain, and protect natural and cultural resources.

WS: \$27,000 - Funds will be used to monitor water usage; manage current water storage agreements; and track water storage contract billing and payments.

OTHER INFORMATION: None.

Division: SWD District: SWF

Project Name: Waco Lake, TX

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Wallisville Lake, TX

AUTHORIZATION: River and Harbor Acts of 1945, 1946, and 1962 and the Supplemental Appropriations Act of 1983 (PL 98-63)

LOCATION AND DESCRIPTION: Wallisville Lake is a multiple purpose project built on the Trinity River to prevent salinity intrusion and provide water supply, recreation, navigation, and fish and wildlife enhancements. The project includes approximately 8 miles of earthen dam and an overflow spillway with a tainter gate assembly, and an 84 X 600 feet navigation lock with a sill depth of 16 feet for commerce and pleasure craft use. Construction initially began in the late 1960s but was stopped due to environmental concerns. Modifications resulted in a saltwater barrier project, with no reservoir pools, to emulate pre-project conditions as closely as possible. Construction resumed in 1996 and was completed in 1999.

RECOVERY ACT ALLOCATIONS TO DATE: \$0

PRESIDENT'S BUDGET FOR FY 2011: \$2,175,000

BUDGET FOR FY 2012: M: \$405,000 O: \$1,585,000 T: \$1,990,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$1,990,000 – Activities include labor (district and field) and non-labor (field) costs for operating the project, implementing the stream gauging and water control bill-back programs. FY12 maintenance funds will be used for routine Project Maintenance.

REC: N/A

HYD: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None.

Division: SWD District: SWG Project Name: Wallisville Lake, TX

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Waurika Lake, OK

AUTHORIZATION: PL 88-253

LOCATION AND DESCRIPTION: Waurika Lake is located at river mile 27.0 on Beaver Creek, a tributary of the Red River, about 6 miles northwest of the town of Waurika in Jefferson County, Oklahoma. This is a multi-purpose project with flood control, irrigation, water supply, water quality, recreation, and fish and wildlife outputs. The project consists of a 16,000 foot long rolled earth-filled embankment with an uncontrolled spillway. At conservation pool the lake covers 10,100 acres.

RECOVERY ACT ALLOCATIONS TO DATE: \$562,000

PRESIDENT'S BUDGET FOR FY 2011: \$2,568,000

BUDGET FOR FY 2012: M: \$335,000 O: \$1,202,000 T: \$1,537,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$980,000 - Funds will be used for routine operations, maintenance, and inspections on structures that reduce flood risk to property and human life, including preventative, routine, and limited breakdown maintenance; operation and inspection of structures to insure projects are performing as designed; and collection of dam safety data.

REC: \$442,000 - Funds will be used for routine operations and maintenance activities related to recreation, including ranger patrols; mowing and other service contracts to maintain park and camping areas; utilities; and breakdown maintenance.

HYD: N/A

ES: \$82,000 - Funds will be used for routine environmental compliance activities, including monitoring of threatened and endangered species; protection of significant cultural resources; water quality monitoring; natural resources management; invasive species control; public education programs; and NEPA compliance activities.

WS: \$33,000 - Funds will be used to monitor water usage; manage current water storage agreements; and track water storage contract billing and payments.

OTHER INFORMATION: None.

Division: SWD District: SWT Project Name: Waurika Lake, OK

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Webbers Falls Lock and Dam, OK

AUTHORIZATION: River and Harbor Act of 1946

LOCATION AND DESCRIPTION: Webbers Falls Lock and Dam is located on the Arkansas River at navigation mile 366.6, about 5 miles northwest of the town of Webbers Falls in Muskogee County, Oklahoma. This is a multi-purpose project with navigation and hydroelectric power outputs. The project consists of a 4,370 foot long rolled earth-filled embankment with a concrete, gated ogee weir controlled spillway with twelve 50x41 foot tainter gates. The lock is a single-lift Ohio River type with a 110x600 foot long chamber and a normal lift of 30 feet. The project contains three inclined-axis hydropower generator units with a total capacity of 60MW. At top of power pool the lake covers 11,640 acres.

RECOVERY ACT ALLOCATIONS TO DATE: \$7,462,000

PRESIDENT'S BUDGET FOR FY 2011: \$5,617,000

BUDGET FOR FY 2012: M: \$1,670,000 O: \$3,243,000 T: \$4,913,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: \$2,328,000 - Funds will be used for routine operations and maintenance for navigation, including critical fleet maintenance support; channel dredging and upland disposal of dredged material; navigation portion of joint costs for dam safety data; implementation of risk reduction measures; and critical lock and dam inspections.

FRM: N/A

REC: \$630,000 - Funds will be used for routine operations and maintenance activities related to recreation, including ranger patrols; mowing and other service contracts to maintain park and camping areas; utilities; and limited breakdown maintenance.

HYD: \$1,807,000 - Funds will be used for routine operations and maintenance activities required to keep the powerhouse and associated equipment operating efficiently, including operation of generating units and auxiliary equipment; performing preventative, routine, and limited breakdown maintenance on equipment; and inspecting equipment for suitability of service.

ES: \$148,000 - Funds will be used for routine environmental compliance activities, including monitoring of threatened and endangered species; protection of significant cultural resources; water quality monitoring; natural resources management; invasive species control; public education programs; and NEPA compliance activities.

WS: N/A

OTHER INFORMATION: None.

Division: SWD District: SWT Project Name: Webbers Falls Lock and Dam, OK

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Whitney Lake, TX

AUTHORIZATION: Flood Control Acts of 1941 and 1944

LOCATION AND DESCRIPTION: Whitney Lake is located in Hill, Bosque and Johnson Counties at river mile 442 on the Brazos River, 5.5 miles southwest of the city of Whitney and 35 miles upstream from the city of Waco, Texas. One of the thirty-four recreation areas is Ham Creek Park which is located at the extreme upper end of Whitney Lake, on the Brazos River. Ham Creek Park will provide needed camping and recreational boating opportunities for the local area, the new residential development of The Retreat, and visitors from the Dallas/Fort Worth Metroplex area. 2010 visitation totaled 5,323,583 visitor hours. The project contains two 17,000 kW hydropower generating units.

RECOVERY ACT ALLOCATIONS TO DATE: \$17,937,000

PRESIDENT'S BUDGET FOR FY 2011: \$7,221,000

BUDGET FOR FY 2012: M: \$565,000 **O:** \$4,832,000 **T:** \$5,397,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$1,381,000 - Funds will be used to operate and maintain dams, levees, and other flood risk reduction facilities.

REC: \$1,874,000 - Funds will be used to operate and maintain parks and other public use areas.

HYD: \$1,609,000 - Funds will be used to operate and maintain hydropower plants as designed.

ES: \$511,000 - Funds will be used to identify, maintain, and protect natural and cultural resources.

WS: \$22,000 - Funds will be used to monitor water usage; manage current water storage agreements; and track water storage contract billing and payments.

OTHER INFORMATION: None.

Division: SWD District: SWF

Project Name: Whitney Lake, TX

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Wister Lake, OK

AUTHORIZATION: Flood Control Act of 1938

LOCATION AND DESCRIPTION: Wister Lake is located on the Poteau River at river mile 60.9, about 2 miles south of the town of Wister in LeFlore County, Oklahoma. This is a multi-purpose project with flood control, water supply, low flow augmentation, water conservation, and sedimentation outputs. The project consists of a 5,700 foot long rolled earth-filled embankment with an uncontrolled, concrete, chute-type spillway with a modified broad-crested weir. At conservation pool the lake covers 7,386 acres.

RECOVERY ACT ALLOCATIONS TO DATE: \$1,295,000

PRESIDENT'S BUDGET FOR FY 2011: \$922,000

BUDGET FOR FY 2012: M: \$341,000 O: \$890,000 T: \$1,231,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$1,025,000 - Funds will be used for routine operations, maintenance, and inspections on structures that reduce flood risk to property and human life, including preventative, routine, and limited breakdown maintenance; operation and inspection of structures to insure projects are performing as designed; and collection of dam safety data.

REC: \$50,000 - Funds will be used for routine operations and maintenance activities related to recreation, including ranger patrols; mowing and other service contracts to maintain park and camping areas; utilities; and breakdown maintenance.

HYD: N/A

ES: \$129,000 - Funds will be used for routine environmental compliance activities, including monitoring of threatened and endangered species; protection of significant cultural resources; water quality monitoring; natural resources management; invasive species control; public education programs; and NEPA compliance activities.

WS: \$27,000 - Funds will be used to monitor water usage; manage current water storage agreements; and track water storage contract billing and payments.

OTHER INFORMATION: None.

Division: SWD District: SWT Project Name: Wister Lake, OK

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Wright Patman Dam and Lake, TX

AUTHORIZATION: Flood Control Act of 1946

LOCATION AND DESCRIPTION: Wright Patman Dam and Lake is located in Cass and Bowie Counties, on the Sulphur River, and is nine miles southwest of the city of Texarkana. The project consists of an earthfill dam, uncontrolled spillway, two conduits, and four gates. Flood control storage is 2,329,100 acre-feet and water supply storage is 321,900 acre-feet. Twenty-three recreation areas consist of 3,243 acres. 2010 visitation totaled 9,861,838 visitor hours.

RECOVERY ACT ALLOCATIONS TO DATE: \$4,036,000

PRESIDENT'S BUDGET FOR FY 2011: \$3,804,000

BUDGET FOR FY 2012: M: \$1,295,000 O: \$2,552,000 T: \$3,847,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

N: N/A

FRM: \$2,110,000 - Funds will be used to operate and maintain dams, levees, and other flood risk reduction facilities

REC: \$1,399,000 - Funds will be used to operate and maintain parks and other public use areas.

HYD: N/A

ES: \$311,000 - Funds will be used to identify, maintain, and protect natural and cultural resources.

WS: \$27,000 - Funds will be used to monitor water usage; manage current water storage agreements; and track water storage contract billing and payments.

OTHER INFORMATION: None.

Division: SWD

District: SWF

Project Name: Wright Patman Dam and Lake, TX

OTHER BUSINESS PROGRAMS

REGULATORY

APPROPRIATION TITLE: Regulatory Program, FY 2012

AUTHORIZATION: Rivers and Harbors Act of 1899, Sections 9, 10 and 13
Clean Water Act, Section 404
Marine Protection, Research and Sanctuaries Act, Section 103

SUMMARIZED FINANCIAL DATA:

Budget Request for Fiscal Year 2012	\$196,000,000
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JUSTIFICATION:

Background. The Corps of Engineers has been regulating specific activities in the Nation's waters since 1890. The Corps' Regulatory program is highly decentralized given the dynamics and needs of different areas with most of the authority for administering the program delegated to District and Division Commanders. The Corps' Regulatory program has become the focus of more intense interest as public awareness of the aquatic environment and the involvement of state and Federal resource agencies continues to grow and there is greater direct input in the permit application process from the public and interest groups. While this heightened scrutiny tends to add time to the decision making process, it provides balance in the overall review. Interagency cooperation in the management and protection of the nation's aquatic resources has greatly improved over the last ten years, resulting in improved efficiency and effectiveness of the Corps' Regulatory program. The Corps has worked to implement program changes to enhance efficiency, enabling more timely response to permit applicants while also improving its ability to protect the aquatic environment. The Corps works with state, tribal, and local governments to develop mechanisms that eliminate duplication for regulating aquatic resources; this is achieved primarily through programmatic and regional general permits for activities with only minimal adverse impacts on the aquatic environment. Strategies to eliminate duplication of effort also include joint federal-state permit applications and processing procedures as well as work-sharing agreements with state and local governments. State Programmatic General Permits are an effective mechanism for giving states a greater role in administering minor permit actions, while focusing Corps resources on more complex permit actions. States may assume Section 404 authority (in non-navigable waters) where the state or local regulatory program is able to implement appropriate regulatory controls. Since 1984, only Michigan and New Jersey have assumed the 404 program. The Corps continues to collaborate with Federal agencies to share information and data. The joint Federal mitigation rule published in 2008 has strengthened the Corps compensatory mitigation requirements and ensures that review and approval requirements are the same for all mitigation options. Interagency reviews of mitigation banks and in-lieu fee programs are an important component of compensatory mitigation decisions.

Types of Activities Regulated by the Corps:

- a. Construction and other work in waters of the United States including wetlands;
- b. Construction of fixed structures and artificial islands on the outer continental shelf;
- c. Discharges of dredged or fill material, including those associated with construction and land-clearing activities, into the waters of the United States, including wetlands;
- d. The transportation of dredged material for the purpose of disposal in ocean waters.

Evaluation Criteria. The decision whether to issue a permit is based on an evaluation of the probable impacts of proposed activities on the aquatic environment, including wetlands, and other aspects of the public interest. In order to issue a permit, District Commanders must determine that activities are not contrary to the public interest. In addition, for Section 404 permits, the Corps must determine compliance with the Clean Water Act, Section 404 (b)(1) guidelines. Corps permits must also be in compliance with other Federal laws, including the Endangered Species Act and National Historic Preservation Act.

ACCOMPLISHMENTS: In FY 2010, the Corps authorized approximately 56,000 activities and completed more than 63,000 jurisdiction determinations. Of those authorizations, more than 80 percent were authorized by Regional and Nationwide general permits with the remainder authorized by what are typically considered more complex individual permits. The Corps continues to depend on its nationwide permit program to help manage its regulatory workload. Without regional and nationwide general permits, all activities would have to be evaluated by the frequently more time consuming individual permit process. Individual permits represent approximately 5% of all permits in numbers but utilize almost a third of all Corps man-days expended on permit actions. The environmental review for these permits is extensive and time consuming as many involve endangered species, historic resources, and compensatory mitigation. Although the evaluation time for an individual permit is typically greater than that for a general permit, most general permit authorizations also involve substantive evaluation and determination of necessary mitigation. The Corps reissued the Nationwide permits in FY 2007 and continues to re-evaluate data for their renewal in 2012.

The Corps continues to be a driving force in the arena of technology to support decision making and track regulatory actions. In 2010, additional modifications were implemented to the ORM2 database to further standardize data entry in 38 districts, and Regulators were provided with additional training, standard operating procedures, and guidance on data management. This database is essential for collecting and reporting data for all actions, and their impacts, mitigation, and location, in a consistent manner. The use of geospatial data from internal and external sources is also a component of the ORM2 system, allowing district Regulators to use this information in the decision making process. As a result, the Corps is making better decisions using available data in a timely manner. The Corps has made ORM2 data available to our USEPA counterparts and provides nightly updates to key permit information. Additionally and as a result of the Deepwater Horizon oil spill, Regulatory has published an online interactive report that provides the public with a real-time listing of permits associated with all emergency situations that require regulatory action. This is a first of its kind for the program can be modified to support future publications of all Regulatory actions.

To improve service to the regulated public and stakeholders, the Corps' Jacksonville District expanded the interactive web based system (AVATAR) which assists the public in completing their permit applications. The goal of the AVATAR is to assist the applicant and ensure that the Corps receives all of the necessary information to process a permit application. The anticipated result is that more applications will be submitted with complete and accurate information, thereby reducing the need for Corps staff to request additional information.

The Corps continues to protect the Nation's aquatic environment, while working to provide fair and equitable decisions in a reasonable period of time. Each year as development pressure persists or increases, more applicants seek approval to build in or near higher value aquatic areas, including wetlands. Given the complexity of the review and a changing development landscape, more permit decisions, whether issued or denied, are resulting in litigation. The potential for litigation increases the need for more-in-depth review and documentation on complex permits. The complexity of recent Supreme Court Decisions related to Clean Water Act jurisdiction also continue to increase the time it takes to provide landowners with decisions.

After holding six public hearings in the six Appalachian states that would be affected by the suspension of NWP 21 and receiving and evaluating over 21,000 comments, the Corps determined on June 18th 2010, to suspend NWP 21 in Appalachia. Other actions the Corps is included in to support the EPA, DOI, Army interagency MOU aimed at reducing the harmful environmental effects of surface coal mines in Appalachia are; jointly developing guidance to improve the ecological success of stream mitigation and working on guidance to strengthen the environmental review of coal projects pursuant to the Section 404 (b)(1) Guidelines.

APPROPRIATION TITLE: Regulatory Program, FY 2011 (continued)

In response to the Deepwater Horizon incident, the Regulatory program received 120 requests to conduct work under emergency procedures. In FY 2010 the Corps issued 92 authorizations were issued/verified, 20 were withdrawn, 4 did not require a permit, 2 were denied the use of emergency procedures, 1 did not qualify for the emergency procedures and 1 application is pending a decision. Authorized work included conventional and non-conventional approaches to preventing oil from the spill from reaching the Gulf Coast shoreline and to facilitate collection and absorption of oil from this unprecedented spill. Proposed activities authorized/verified through the district emergency procedures include the deployment of boom, mooring of barges, placement of sand or sheet pile in barrier island cuts, and placement of dredge or fill activities associated with barrier island protection. Three districts in the Gulf have been working closely with state and federal regulatory and resource agencies to expedite the review and decision making for this emergency. In addition, the Regulatory program deployed a new ORM2 report to allow districts, divisions and headquarters to quickly respond to internal and external inquiries regarding permit applications and decisions related to this emergency. These reports we also made publicly available (<http://geo.usace.army.mil/egis/f?p=112>) and included a Google Earth mapping tool. (http://geo.usace.army.mil/egis/orm2.emergency_permits.kml)

FISCAL YEAR 2012: The Corps will continue to strive to meet target performance levels and increase the program's level of documentation and consistency necessary for jurisdictional determinations and permit decisions. The Corps will strive to maintain processing times at or near the current levels for standard permits and general permits. Funds will be allocated for compliance inspections of permitted activities, including monitoring of compensatory mitigation. Enforcement funding has been separated from compliance funding and collectively will comprise no more than 25% of the request.

Other program management efforts will continue, including specialized training of Corps personnel and technical assistance to Corps districts by the Engineer Research and Development Center (ERDC). For FY 2012, approximately \$3,000,000 will be allocated to ERDC for its direct technical assistance with complex and sensitive permit cases. This funding will also allow ERDC to continue to provide scientific and technical support for programmatic initiatives including revisions to the Federal regional wetland delineation supplements and the national wetland plant list. These initiatives will strengthen our decision-making and ensure consistency in aquatic resource delineations by taking into account regional variations. Funds will be provided to the Institute for Water Resources to address special program management issues such as studies of mitigation banking, improvement of the Mitigation Bank tracking system, RIBITS. ORM2 will collect workload statistics and program performance as well as information on mitigation including habitat type which is critical for ensuring the Corps achieves its "no net loss" of wetlands high priority performance goal. Regulatory supports the No Net Loss policy programmatically. The database will also have spatial data on permits, which can be made available to the public and our Federal, state and local partners.

The \$196 million will be applied approximately as follows:

Permit Evaluation and Jurisdictional determinations	\$162,000,000
Enforcement & Resolution	\$ 15,000,000
Compliance for Authorized Activities & Mitigation	\$ 15,000,000
Administrative Appeals	\$ 1,000,000
National initiative and Technical Support	\$ 3,000,000
TOTAL	\$196,000,000

ENVIRONMENT

FORMERLY USED SITES REMEDIAL ACTION PROGRAM

(FUSRAP)

APPROPRIATION TITLE: Formerly Utilized Sites Remedial Action Program, Fiscal Year 2012

State	Allocated	FY 2012	Remaining Requirement	
Project Name	through FY 2011	Request	Low Estimate	High Estimate
Connecticut				
CE, Windsor, CT	9,952,000	5,000	25,000	25,000
Indiana				
Joslyn Manufacturing & Supply Company, Ft. Wayne, IN	1,021,471	0	12,888,283	TBD
Iowa				
Iowa Army Ammunition Plant, Middletown, IA	21,410,000	3,500,000	24,810,000	TBD
Maryland				
W. R. Grace, Baltimore, MD	15,113,000	700,000	1,480,000	2,480,000
Massachusetts				
Shpack Landfill, Norton, MA	73,885,962	500,000	100,000	100,000
Missouri				
Downtown, St. Louis, MO	225,077,000	13,200,000	0	TBD
Latty Avenue, St. Louis, MO	162,329,000	5,000,000	19,507,323	19,507,323
St. Louis Airport Vicinity Properties, St. Louis, MO	74,105,000	10,000,000	22,852,504	22,852,504
St. Louis Airport, St. Louis, MO	305,818,000	50,000	3,096,000	3,096,000
New Jersey				
Dupont Chambers Works, Deepwater, NJ	22,240,000	5,000,000	0	23,657,000
Maywood, NJ	527,149,000	32,000,000	333,851,000	343,851,000
Middlesex, NJ	110,994,000	400,000	465,000	3,465,000
New York				
Colonie, NY	191,014,000	250,000	2,170,000	11,016,000
Guterl, Lockport, NY	8,525,000	720,000	1,419,242	TBD
Linde Air Products, Tonawanda, NY	278,858,896	14,500,000	66,500,000	66,500,000
Niagara Falls Storage Site, NY	69,227,720	3,600,000	253,408,280	TBD
Seaway Industrial Park, Tonawanda, NY	9,844,334	200,000	34,367,722	34,185,890
Sylvania Corning, Hicksville, NY	13,813,000	1,000,000	TBD	TBD
Tonawanda Landfill Vicinity Property	3,926,632	640,000	243,743	TBD
Ohio				
Former Harshaw Chemical Company, Cleveland, OH	16,664,649	400,000	1,190,902	TBD
Luckey, OH	20,941,705	720,000	305,503,798	301,371,798
Painesville, OH	49,028,499	3,600,000	1,622,854	1,622,854
Pennsylvania				
Shallow Land Disposal Area, Parks Township, PA	48,390,000	13,000,000	132,146,810	132,146,810
Superior Steel, Scott Township, PA	615,000	0	13,294,754	TBD
Potential Sites				
	8,582,000	15,000	TBD	TBD
Totals	2,268,525,868	109,000,000		

CONNECTICUT

Site	Total Estimated Federal Cost \$	Allocation Through FY 2009 \$	Allocation for FY 2010 \$	ARRA Allocation \$	Allocation FY 2011 \$	Requested Allocation FY 2012 \$	Additional to Complete After FY 2012** \$
Combustion Engineering Windsor, CT New England District	9,982,000	9,827,000	25,000	N/A	100,000	5,000	25,000

The Combustion Engineering (CE) site is a 600-acre area in Windsor, Connecticut. CE, under contract to the Atomic Energy Commission (AEC), fabricated nuclear fuel assemblies using highly enriched uranium (HEU) from 1958 to 1961. CE also conducted licensed commercial nuclear activity on the site from the early 1960's to 1993. Although the commercial nuclear fuel fabrication ceased in 1993, CE is still licensed by the Nuclear Regulatory Commission (NRC) for other commercial nuclear activities and the facility is still operating today. HEU is the primary radiological contaminant of concern at the site which may be addressed by Formerly Utilized Sites Remedial Action Program (FUSRAP). Only limited site characterization work had been performed when FUSRAP was transferred from the Department of Energy (DOE) to the Corps for execution. Since then, the Corps has performed a gamma survey of the site, completed site characterization (SI), completed an investigation action at the "Rapaport Building", completed a Remedial Investigation Report and completed a draft Feasibility Study.

CE's NRC license was expanded to cover the FUSRAP waste in FY07. CE will now be responsible for addressing any FUSRAP waste as part of their site decommissioning efforts.

In FY 2009 and FY2010 funds were used to monitor NRC and CE actions associated with the site.

In FY2011 funds are being used to continue Corps' monitoring of site activity and to support ongoing negotiations with CE.

In FY2012 funds will be used to continue Corps' monitoring of site activity, support to negotiations with CE and to prepare site close out documents.

**Completion of site remediation is tentatively scheduled for 2012. We expect to prepare a no further action decision.

INDIANA

Site	Total Estimated Federal Cost* \$	Allocation Through FY 2009 \$	Allocation for FY 2010 \$	ARRA Allocation \$	Allocation FY 2011 \$	Requested Allocation FY 2012 \$	Additional to Complete After FY 2012** \$
Joslyn Manufacturing & Supply Company Fort Wayne, IN Buffalo District	13,909,754-TBD	671,471	0	N/A	350,000	0	12,888,283-TBD

The Joslyn Manufacturing and Supply Co. (Joslyn Manufacturing Site), officially known as the Fort Wayne Steel Corporation, is owned by Valbruna Slater Stainless Inc. (VSSI). It is located at 2302 Taylor Street, Fort Wayne, IN. During the nation's early atomic energy program, the USACE Manhattan Engineer District (MED), the Atomic Energy Commission (AEC), and the University of Chicago contracted with the Joslyn Manufacturing and Supply Company to assist in developing America's first nuclear weapons. Operations performed at the Joslyn Manufacturing Site included heating and machining natural uranium billets converting them into metal rods for shipment to Hanford, Washington. The areas utilized for supporting the MED/AEC program from 1943 to 1952 are currently isolated and inactive. During a property transaction, the presence of radioactive contamination was reassessed and the site was referred to the US Department of Energy (USDOE) for further evaluation. On August 26, 2004 the USDOE determined that this site should be reviewed for possible inclusion in the FUSRAP and on November 19, 2004 referred this site to the USACE for investigation in accordance with the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) process. During 2006 - 2008 the USACE completed the Preliminary Assessment (PA), Site Investigation (SI), and Preliminary Legal Liability Analysis (PLLA). In July 2009, the USACE officially included this site into the FUSRAP program based upon the facts established in the PA, SI, and PLLA.

In FY2009, funds were used to complete the evaluation of data and eligibility criteria and complete the Corps decision process to include this project into the FUSRAP.

In FY2010, the Corps budget does not include funding for this project.

In FY2011, funds are scheduled to complete a Historic Aerial Photography Analysis and contract a Site Ownership and Operational History (SOOH) Report, The SOOH will establish a historical record of past AEC and non-AEC operations, potential environmental impacts, and a legal analysis of potential environmental liabilities for site owners and operators.

Due to budget constraints, funds are not requested for this site in FY12.

* The total estimated federal cost reflects a preliminary estimate of costs to complete the study phase of the CERCLA process through the Record of Decision (ROD). A preliminary cost estimate for a range of potential long-term site remedies will be developed in the FS.

** The completion schedule for this site will depend on the USACE selection of potential long-term remedies (cleanup standards and technologies) developed for this site in the RI, FS, PP, and ROD and on the national program funding priorities and constraints.

IOWA

Site	Total Estimated Federal Cost* \$	Allocation Through FY 2009 \$	Allocation for FY 2010 \$	ARRA Allocation \$	Allocation FY 2011 \$	Requested Allocation FY 2012 \$	Additional to Complete After FY 2012** \$
Iowa Army Ammunition Plant Middletown, IA, St. Louis District	49,720,000 - TBD	10,410,000	5,000,000	N/A	6,000,000	3,500,000	24,810,000- TBD

The Iowa Army Ammunition Plant (IAAAP) is a secured, operational, Army-owned facility located on approximately 19,100 acres near Burlington in Des Moines County, in southeastern Iowa. During its use as an Army facility, portions of the IAAAP were occupied by tenant organizations including the Atomic Energy Commission (AEC). From 1947 to 1975, the AEC operated areas of the plant as the Burlington Atomic Energy Commission Plant (BAECP). In 2002 a Preliminary Assessment was completed for the BAECP and the IAAAP was included in FUSRAP. Evidence of a release was found in several areas. Two areas (Line 1 and the Wet Burn Pads South Area) were already investigated under other Army programs and remedial action remained. Other areas at the plant required additional investigation, which was accomplished by USACE as part of a Remedial Investigation. The FUSRAP Remedial Investigation, which was completed in August 2008, identified three areas (the Firing Site area and Yards C and G) for further evaluation in the Feasibility Study. Contamination consisted of radiological (depleted uranium), chemical, and explosives. Alternatives to address the contamination will be presented in the Feasibility Report (the next step in the planning process). The primary regulators/stakeholders include the Environmental Protection Agency Region VII, Iowa Departments of Public Health and Natural Resources, Iowa Army Ammunition Plant (Army) and the local residents. The site was placed on the National Priority List in 1990.

FY 2010 funds were used primarily to remediate the West Burn Pads South area. Activities consisted of excavation and disposal of approximately 12,900 cubic yards of contaminated material. (Remediation of the West Burn Pads South and Line 1 is being conducted under a prior Army Record of Decision.) FY 2010 funds were also used to issue the draft Feasibility Report for regulatory review and to address regulatory comments.

FY 2011 funds are being used to complete the designs for Line 1 areas and to continue remediation of Line 1 under the Army's existing non-radiological Record of Decision. Funds are also being used to finalize the Feasibility Report and Proposed Plan. Approximately 3500 cubic yards of contaminated material are being removed.

FY 2012 funds will be used to remediate the Line 1 area and to complete the Record of Decision.

*A preliminary cost estimate for site remediation will be determined during the Feasibility Study phase.

**The completion schedule will depend on the cleanup standards established for this site and on overall funding constraints.

Site	Total Estimated Federal Cost* \$	Allocation Through FY 2009 \$	Allocation for FY 2010 \$	ARRA Allocation \$	Tentative Allocation FY 2011 \$	Requested Allocation FY 2012 \$	Additional to Complete After FY 2012** \$
W.R. Grace Site Baltimore, MD Baltimore District	17,293,000 18,293,000	13,643,000	700,000	N/A	770,000	700,000	1,480,000 - 2,480,000

The W.R. GRACE site is situated within a 260-acre property owned by W.R. Grace-Davidson Chemical Manufacturing Company (GRACE) and located in southwestern Baltimore City on an industrialized peninsula. Currently, GRACE manufactures and produces specialty chemicals at this facility. Contamination at the site is located in two separate and distinct areas of concern. The first is located in the southwestern corner of Building 23 which housed the thorium extraction process and has contaminated surfaces which were impacted by this process. The second area is the approximately 7-acre Radioactive Waste Disposal Area (RWDA) located east of the plant proper. This area received the process byproducts and spent monazite sand and gangue from the thorium extraction process. The Department of Energy (DOE) conducted radiological surveys at the site; however, no characterization or remediation had been performed. The Corps has finalized the remedial investigation/feasibility study (RI/FS) and Record of Decision (ROD) for Building 23. The RWDA RI/FS is complete.

A Site-Wide Settlement Agreement was signed in 21 April 2008 by the District of Delaware, Bankruptcy Court. The agreement states that financial liability shall be shared between GRACE and the Government in a 40/60 split and giving GRACE the site lead to obtain, manage and direct the site cleanup according to the Records of Decision for each respective area of concern. GRACE is given the right to seek cost reimbursement from the Government, through the Department of Justice Settlement Fund, for those funds spent on the Government's behalf (60%) in conducting the cleanup work.

In FY 2010, the funds were used to provide technical oversight of GRACE's contractor selection process and technical oversight for Building 23 and drafting of the RWDA Record of Decision conducted according to the Settlement Agreement.

In FY 2011, the funds are being used to complete the RWDA Record of Decision and will continue to provide technical oversight of GRACE's remedial activities in Building 23 conducted according to the Settlement Agreement.

In FY 2012, funds will be used to complete technical oversight of Building 23 Remedial Action and start the oversight of RWDA Remedial Action planning activities conducted according to the Settlement Agreement.

FY 2013, funds will be used to start the RWDA Remedial Action work according to the Settlement Agreement.

** The schedule for completion of site remediation is to be determined.

* The total cost will depend upon the specific cleanup standards established for this site, taking into account input from federal, state, and local regulators, the general public, and other stakeholders. Once a final cleanup plan for the site is approved in a Record of Decision, it will be possible to provide a more definitive estimate.

** The completion schedule will depend on the cleanup standards established for this site and on overall funding constraints.

MASSACHUSETTS

Site	Total Estimated Federal Cost \$	Allocation Through FY 2009 \$	Allocation for FY 2010 \$	ARRA Allocation \$	Allocation FY 2011 \$	Requested Allocation FY 2012 \$	Additional to Complete After FY 2012 \$
Shpack Landfill Norton/Attleboro, MA New England District	73,985,962	42,019,000	4,100,000	15,766,962	12,000,000	500,000	100,000

The Shpack site is an 8-acre abandoned domestic and industrial landfill which operated from 1946 to 1965. It is located along the Norton/Attleboro town boundary line with approximately 5.5 acres in Norton and 2.5 acres in Attleboro. The Town of Norton and Attleboro Landfill, Inc. owns the property. FUSRAP-related radioactive contamination is believed to have come from Metals and Controls, Inc. (now Texas Instruments), which had used the landfill to dispose of trash and other materials from 1957-1965. The General Plate Division of Metals and Controls began to fabricate enriched uranium foils at their Attleboro plant in 1952. In 1959 it merged with Texas Instruments, which continued the operations until 1981, using enriched and natural uranium for the fabrication of nuclear fuel for the U.S. Navy and commercial customers. The site was also listed on the National Priority List (NPL) in 1986, primarily to address other contaminants on site. The Environmental Protection Agency (EPA) has signed an Administrative Order by Consent with a group of Settling Parties (which includes Texas Instruments) for the performance of a remedial investigation/feasibility study (RI/FS). This study was completed in FY04 and a Record of Decision (which addressed the radiological contamination) was signed on 30 September 2004. The Corps has completed a gamma walk-over survey, site characterization, and potentially responsible party (PRP) investigations and completed a draft Engineering Evaluation/Cost Analysis (EE/CA). In FY 2005, the Corps initiated the remedial action in accordance with EPA's Record of Decision. Quantities of contaminated soil have increased significantly over those in the Record of Decision requiring a significant increase in funding to complete the project

In FY2010 funds were used to continue the remedial action.

American Recovery and Reinvestment Act (ARRA) funding was used to continue and expedite the remedial action. In late FY2010 a significant amount of additional contaminated soil volume was discovered.

In FY2011 funds are being used to continue the remedial action. \$7M was originally scheduled for this site in FY2011. If available, excess FY2011 funds from the Painesville site may be used for remediation at this site.

In FY2012 funds will be used to complete the remedial action.

MISSOURI

Site	Total Estimated Federal Cost \$	Allocation Through FY 2009 \$	Allocation for FY 2010 \$	ARRA Allocation \$	Allocation FY 2011 \$	Requested Allocation FY 2012 \$	Additional to Complete After FY 2012 \$
St. Louis Downtown Site St. Louis, MO St. Louis District	238,277,000 -TBD	198,277,000	13,000,000	N/A	13,800,000	13,200,000	0 -TBD

The St. Louis Downtown Site and vicinity properties are located in St. Louis, Missouri. The site includes an operational chemical manufacturing facility (Mallinckrodt Inc.) and 36 surrounding properties used by a variety of interests for industrial and commercial purposes. The primary contaminants of concern are radium-226, thorium-230, uranium-238, metals, and organic compounds. The extent of contamination includes 17 acres where contaminated soils are accessible for remediation (17 buildings, subsurface soil, and vicinity properties). The primary regulators/stakeholders include the U.S. Environmental Protection Agency Region VII, Missouri Department of Natural Resources, and the St. Louis Oversight Committee. In 1998, a Record of Decision (ROD) for the accessible areas was signed to allow the removal of approximately 87,000 cubic yards of contaminated soils. The total estimated Federal cost shown above does not reflect possible costs of addressing contamination in inaccessible soils. The inaccessible soils remain to be addressed by CERCLA documentation including a Record of Decision.

FY 2010 funds were used to excavate and ship 12,775 cubic yards from the Plant 6 West area, the Plant 7N Haz-pad area and several vicinity properties (including the St. Louis City Property west of the levee and the BNSF railroad property.) . In addition, FY 2010 funds were used to issue a Post Remedial Action Report releasing the DT-10 property, to complete the Five Year Review report and for efforts to address the inaccessible soils (i.e. collecting and analyzing samples from inaccessible areas and preparing a draft Remedial Investigation Report.)

FY 2011 funds are being used to remediate approximately 10,000 cubic yards from the Plant 6W (phase 2) area and from the BNSF property and to prepare documentation to release seven properties in accordance with the Record of Decision for accessible areas. In addition, FY 2011 funds are being used to issue the draft Remedial Investigation report (for the inaccessible areas) to the regulators and to prepare a revised final report.

FY 2012 funds will be used to remediate approximately 9,000 cubic yards, to issue documentation releasing one vicinity property in accordance with the Record of Decision for accessible areas and to issue the Feasibility Report and Proposed Plan for the inaccessible areas.

The completion schedule will depend on the overall funding constraints.

APPROPRIATION TITLE: Formerly Utilized Sites Remedial Action Program, Fiscal Year 2012

Mississippi Valley Division

Site	Total Estimated Federal Cost \$	Allocation Through FY 2009 \$	Allocation for FY 2010 \$	ARRA Allocation \$	Allocation FY 2011 \$	Requested Allocation FY 2012 \$	Additional to Complete After FY 2012 \$
Latty Avenue Properties / Hazelwood Interim Storage Site Berkeley, MO St. Louis District	186,836,323	124,829,000	22,500,000	N/A	15,000,000	5,000,000	19,507,323

The Latty Avenue Properties site is comprised of several different tracts of land in North St. Louis County, Missouri. The project includes an 11-acre site, encompassing the Hazelwood Interim Storage Site (HISS) and Futura Coatings on Latty Avenue, and the Latty Avenue Vicinity Properties, which are at various nearby locations. The Hazelwood Interim Storage Site and Futura Coatings were placed on the National Priority List in 1989. The primary contaminants of concern are radium-226, thorium-230, and uranium-238. Surface and subsurface soils are known to be contaminated at levels which pose an unacceptable human health risk based on projected future land use scenarios. The primary regulators/stakeholders include the Environmental Protection Agency Region VII, Missouri Department of Natural Resources, and the St. Louis Oversight Committee.

FY 2010 funds were used to excavate and ship 38,372 cubic yards of contaminated soil from the HISS/FUTURA and VP-02L (Stone Container) properties,, to prepare a sampling plan for the VP-02L building and to complete documentation releasing two properties (VP-01L and 10K).

FY 2011 funds are being used to excavate and ship approximately 17,000 cubic yards of contaminated soil from the HISS/FUTURA, VP-6L, VP-02L and 40A properties. In addition, funds will be used to complete sampling of VPs-3L, 4L, and 5L (in advance of preparation of release documents) and the building at VP-02L,

FY 2012 funds will be used to excavate and ship approximately 3,000 cubic yards of contaminated soil and to prepare release documents for three additional vicinity properties.

The completion schedule will depend on overall funding constraints.

Site	Total Estimated Federal Cost \$	Allocation Through FY 2009 \$	Allocation for FY 2010 \$	ARRA Allocation \$	Allocation FY 2011 \$	Requested Allocation FY 2012 \$	Additional to Complete After FY 2012 \$
St. Louis Airport Site, Vicinity Properties St. Louis, MO St. Louis District	106,957,504	57,905,000	7,500,000	2,000,000	6,700,000	10,000,000	22,852,504

The St. Louis Airport Site (SLAPS) Vicinity Properties consists of 78 properties in North St. Louis County, Missouri. The contaminated sites include former ball fields (located directly north of SLAPS), areas along haul roads, and Coldwater Creek. The primary contaminants of concern are radium-226, thorium-230, and uranium-238. Dispersion of radioactive material occurred by direct migration from SLAPS via air or water, or as a result of transport along the roadways between the St. Louis Airport Site and the HISS/Latty Avenue Site. This is the case for most of the roadway, shoulder, and ditch contamination. The properties are used for residential, commercial, industrial, recreational and transportation (road easement) purposes. The primary regulators/stakeholders include the Environmental Protection Agency, Region VII, Missouri Department of Natural Resources, and the St. Louis Oversight Committee. The Record of Decision for this site was finalized in FY 2005. A Potentially Responsible Party investigation is underway.

FY 2010 funds were used to excavate and ship 321 cubic yards of contaminated material, to complete the design and begin remediation of the McDonnell Boulevard East vicinity property, and to complete the final status survey documents for eleven properties (thereby releasing them for beneficial use.)

American Recovery and Reinvestment Act (ARRA) funds were used in FY 2010 to remediate 5 vicinity properties. The funds were awarded to a small business contractor which removed and shipped approximately 3,100 cubic yards of material and restored the properties to their pre-excavation state. The ARRA funded remediation was completed one month ahead of schedule in August 2010.

FY 2011 funds are being used to remove and ship approximately 7,000 cubic yards and to prepare documentation to return eight vicinity properties to beneficial use.

FY 2012 funds will be used to excavate and ship approximately 8,000 cubic yards and to prepare documentation to return six vicinity properties to beneficial use.

The completion schedule will depend on overall funding constraints.

Site	Total Estimated Federal Cost \$	Allocation Through FY 2009 \$	Allocation for FY 2010 \$	ARRA Allocation \$	Allocation FY 2011 \$	Requested Allocation FY 2012 \$	Additional to Complete After FY 2012 \$
St. Louis Airport Site St. Louis, MO St. Louis District	308,964,000	305,518,000	200,000	N/A	100,000	50,000	3,096,000

The St. Louis Airport Site (SLAPS) consists of 21.7 acres north of Lambert International Airport in North St. Louis County, Missouri. The site is bordered by McDonnell Boulevard on the north and east, Coldwater Creek on the west, Banshee Road and Norfolk and Western Railway on the south. The ditches immediately adjacent to the north and south of SLAPS are considered part of this location. The primary contaminants of concern are radium-226, thorium-230, and uranium-238. The St. Louis Airport Authority owns the property. The primary regulators/stakeholders include the U.S. Environmental Protection Agency Region VII, Missouri Department of Natural Resources, and the St. Louis Oversight Committee. A Potentially Responsible Party Investigation is underway. The site was placed on the National Priority List in 1989. In 2008, the Corps completed remediation of this site in accordance with the 2005 Record of Decision.

FY 2010 funds were used to perform groundwater monitoring and long term management activities in accordance with the Record of Decision.

FY 2011 funds are being used to perform groundwater monitoring and long term management activities in accordance with the Record of Decision.

FY 2012 funds will be used to perform groundwater monitoring and long term management activities in accordance with the Record of Decision.

NEW JERSEY

Site	Total Estimated Federal Cost* \$	Allocation Through FY 2009 \$	Allocation for FY 2010 \$	ARRA Allocation \$	Tentative Allocation FY 2011 \$	Requested Allocation FY 2012 \$	Additional to Complete After FY 2012** \$
DuPont Chambers Works Deepwater, NJ Philadelphia District	27,240,000 - 50,897,600	19,940,000	1,000,000	N/A	1,300,000	5,000,000	0 - 23,657,600

The DuPont Chambers Works site is a 700-acre active chemical plant located in Pennsville and Carneys Point Townships on the southeastern shore of the Delaware River, north of the I-295 Delaware Memorial Bridge, and adjacent to the residential community of Deepwater, N.J. The plant is owned and operated by E.I. Dupont de Nemours & Company. Operations involving uranium at the Chambers Works site began in 1942. As part of its work on the Manhattan Engineer District (MED) Program, DuPont worked on developing a process for converting uranium oxide to produce uranium tetrafluoride and small quantities of uranium metal. The major contaminant is U-238 found in both soil and water samples. Through FY2004, the Corps continued site characterization and Remedial Investigation / Feasibility Study (RI/FS) activities for soil contamination and investigation of possible groundwater contamination, conducted Technical Project Planning sessions with the stakeholders including the New Jersey Department of Environmental Protection, held Restoration Advisory Board Meetings, conducted extensive coordination with the landowner, and completed work-plans for on-site investigations and completed soil sampling and well installation. The Site-Wide Remedial Investigation and Risk Assessment report was finalized in FY 2009.

In FY 2010, the Corps completed the Draft Feasibility Study (FS) for Regulator review and comment. The Regulators have completed their comments and Corps has prepared and provided responses.

In FY 2011, funds will be used to finalize the FS as well as develop and finalized the Proposed Plan. The Proposed Plan will go through Regulator and Public comment period.

In FY 2012 requested funds will be used to complete the Record of Decision (ROD). The ROD will go through a Regulator review/response period. Funds will also be used to begin the remedial design and construction activities.

The schedule for completion of site remediation is to be determined.**

*The total cost will depend upon the specific cleanup standards established for this site, taking into account input from federal, state, and local regulators, the general public, and other stakeholders. Once a final cleanup plan for the site has been approved in a Record of Decision, it will be possible to provide a more definitive estimate. Current project completion schedules and cost estimates do not include any remedial design or remediation action for potential ground-water contamination.

** The completion schedule will depend on the cleanup standards established for this site and overall funding constraints.

Site	Total Estimated Federal Cost* \$	Allocation Through FY 2009 \$	Allocation for FY 2010 \$	ARRA Allocation \$	Allocation FY 2011 \$	Requested Allocation FY 2012 \$	Additional to Complete After FY 2012** \$
Maywood Site Maywood, N.J. New York District	893,000,000 - 903,000,000	402,363,000	35,500,000	54,286,000	35,000,000	32,000,000	333,851,000 - 343,851,000

The Maywood site is included on the Environmental Protection Agency Superfund National Priorities List. The Corps is currently working under the Federal Facilities Agreement (FFA) signed by DOE and EPA. The site consists of 140 acres of residential, commercial and industrial property totaling 88 commercial and residential properties, located 20 miles north of Newark adjacent to Interstate 80 and State Route 17. There are approximately 281,000 cubic yards of subsurface contaminated material containing thorium-232, radium-226, and uranium-238. The United States owns 11.7 acres of the site, which is being used as a staging area during cleanup operations. The Stepan Company occupies part of the site and operates a chemical factory processing a patented product. Sears operates a large central distribution warehouse (leased) on the site. In the mid-1980's, 25 residential vicinity properties were remediated. In 1994 an Engineering Evaluation/Cost Analysis (EE/CA) by the Department of Energy approved a further interim removal action to remediate an additional 39 vicinity properties. As of the end of FY 00, all of the 39 vicinity properties included in the 1994 EE/CA have been remediated, including 23 completed by the Corps (15 in FY 98, 7 in FY99, and 1 in FY00). Additionally, the Corps has completed a Remedial Investigation/Feasibility Study/Proposed Plan, Record of Decision, Remedial Design (RI/FS/PP/ROD/RD) for soils and buildings on the remainder of the site, prepared an EE/CA for an interim removal action involving 10 commercial properties impacted by New Jersey Department of Transportation projects, initiated remedial action for the remainder of soils and completed potentially responsible party (PRP) negotiations through the Department of Justice with the Stepan Company. A complete review of the cost estimate prepared in 2003 has identified inconsistencies with what we presently know. A new cost estimate has been prepared and the funding information above has been revised accordingly.

American Recovery and Reinvestment Act (ARRA) funds are being used to excavate the burial pits 1, 2 and other contaminated portions of the Maywood site on the Stepan property.

In FY 2010, funds were used to continue work the soils remedial action and continue preparation of a groundwater ROD document.

In FY 2011, funds are being used to continue the remedial action under the soils ROD and continue the preparation of the groundwater ROD.

FY 2012 funds will be used to continue the remedial action under the soils ROD and finalize the groundwater ROD.

*The total cost will depend upon the specific groundwater cleanup standards established for this site, taking into account input from federal, state, and local regulators, the general public, and other stakeholders. Once a final cleanup plan for the site has been approved in a groundwater Record of Decision, it will be possible to provide a more definitive estimate.

**The completion schedule will depend on the groundwater cleanup standards established for this site and overall funding constraints.

Site	Total Estimated Federal Cost \$	Allocation Through FY 2009 \$	Allocation for FY 2010 \$	ARRA Allocation \$	Allocation FY 2011 \$	Requested Allocation FY 2012 \$	Additional to Complete After FY 2012 \$
Middlesex Sampling Plant Middlesex, NJ New York District	112,059,000 - 115,059,000	110,294,000	700,000	N/A	200,000	400,000	465,000 - 3,465,000

The Middlesex site is a Federal government-owned site located in Middlesex, NJ. There are also 36 Vicinity Properties (VPs). Primary contaminants are Uranium-232, Radium-226, and Thorium-232. The Manhattan Engineer District (MED) established the Middlesex Sampling Plant (MSP) in 1943 for use in sampling, storage, and shipment of uranium, thorium, and beryllium ores. MED operations ended in 1955, and the Atomic Energy Commission (AEC) later used the site for storage and performed limited sampling of thorium residues. In 1967, the AEC terminated activities at the MSP and decontaminated onsite structures to meet criteria then in effect. From 1969 to 1979, the site served as a US Marine Corps training center. In 1980, the MSP was returned to the Department of Energy (as AEC's successor), which designated it for clean up under FUSRAP. MSP was used for interim storage of two piles of radioactively contaminated soils removed from the vicinity properties (VPs) and from the Middlesex Municipal Landfill (MML). The Middlesex site was added to the Environmental Protection Agency Superfund National Priorities List (NPL) in FY 1999. Through the end of FY 2001, the Corps has removed and disposed of the MML pile and the VP pile. Additionally, the Corps has completed a Remedial Investigation/Feasibility Study/Proposed Plan, Record of Decision, Remedial Design (RI/FS/PP, ROD/RD) for soils on the remainder of the site. Coordination with Federal and state agencies, and local communities is continuing.

In FY 2010, the Corps continued the groundwater investigation needed for the Feasibility Study and Proposed Remedial Action Plan.

In FY 2011 funds are being used to continue the Groundwater Feasibility Study and Proposed Plan of the overburden and fractured bedrock aquifers.

FY 2012 funds will be used to complete the Groundwater Feasibility Study and Proposed Plan.

The schedule for completion of site remediation is to be determined.**

* The total cost will depend upon the specific cleanup standards established for this site, taking into account input from federal, state, and local regulators, the general public, and other stakeholders. Once a final cleanup plan for the site has been approved in a Record of Decision, it will be possible to provide a more definitive estimate.

** The completion schedule will depend on the cleanup standards established for this site and overall funding constraints.

NEW YORK

Site	Total Estimated Federal Cost \$	Allocation Through FY 2009 \$	Allocation for FY 2010 \$	ARRA Allocation \$	Allocation FY 2011 \$	Requested Allocation FY 2012 \$	Additional to Complete After FY 2012 \$
Colonie Site Colonie, NY New York District	193,434,000 - 202,330,000	190,614,000	200,000	N/A	200,000	250,000	2,170,000 - 11,066,000

The Colonie site consists of a total area of 11.2 acres plus 56 vicinity properties (VPs). The primary site was owned and operated by National Lead Industries (NL) from 1937-1984. The facility was used for electroplating and manufacturing various components from uranium and thorium. Radioactive materials released from the plant exhaust stacks spread to site buildings, portions of the grounds, and the 56 commercial and residential VPs. NL also dumped contaminated casting sand into the former Patroon Lake. By order of a New York State Court the NL plant shut down in 1984. Coordination is ongoing with the New York State Department of Environmental Conservation, and local leaders. The transfer of the property from NL to the Federal government in 1984 contained “hold harmless” language, which precludes holding NL as a PRP. At the time of transfer of FUSRAP execution to the Corps, the Department of Energy (DOE) had completed remediation of the vicinity properties; and in 1995 finalized an Engineering Evaluation/ Cost Analysis (EE/CA), authorizing a removal action to address soils contamination at the former NL property itself. Through FY 2002, the Corps disposed, off-site, stockpiled materials and excavated contaminated soils, in accordance with the DOE EE/CA; completed a reevaluation of the DOE EE/CA and issued an amended EE/CA and revised action memorandum; and continued the groundwater investigations. Additionally, the Corps has completed the removal action under the revised Action Memorandum.

FY 2009 funds were used to complete the Groundwater Feasibility Study/Proposed Remedial Action Plan and prepare a combined draft Groundwater Record of Decision (ROD).

In FY 2010, the Corps completed the Groundwater ROD and commenced the preparation of a Soils Record of Decision.

FY 2011 funds are being used to prepare a draft Soils Proposed Plan decision document.

FY 12 funds will be used to complete the Soils Proposed Plan and prepare a Soils Record of Decision document, which is planned to be completed in 2013.

The schedule for completion of site remediation is to be determined.**

* Once a final soils proposed plan for the site has been approved, it will be possible to provide a more definitive estimate.

** The completion schedule will depend on the cleanup standards established for this site and overall funding constraints.

Site	Total Estimated Federal Cost \$	Allocation Through FY 2009 \$	Allocation for FY 2010 \$	ARRA Allocation \$	Allocation FY 2011 \$	Requested Allocation FY 2012 \$	Additional to Complete After FY 2012 \$
Guterl Specialty Steel Lockport, NY Buffalo District	10,664,242-TBD	5,550,000	2,000,000	N/A	975,000	720,000	1,419,242-TBD

The former Guterl Specialty Steel site, (a.k.a. Simmonds Saw and Steel Corporation), comprises about 70 acres in the City of Lockport, New York, approximately 20 miles north of Buffalo, New York. The site is bordered by residential and commercial properties to the north, State Route 93 to the west, and the New York State Barge Canal to the south. An active steel plant adjacent to the site is currently being operated by ALLVAC, a business unit of the Allegany Technologies, Inc. Currently, employment is approximately 60 people. The site was used to perform rolling mill operations on about 35-million pounds of uranium metals and 40-thousand pounds of thorium metals between 1948 and 1955 under contracts issued by the Atomic Energy Commission (AEC). The buildings used to support the AEC process encompass about 9 acres, and are abandoned. The site also includes a 9-acre landfill. The USACE is investigating the nature and extent of radiological contamination, and associated human health and ecological risks, resulting from the past AEC operations. The USACE coordinates proposed investigative and remedial activities with the New York State Department of Environmental Conservation, the U.S. Environmental Protection Agency, and the public through a diverse environmental outreach program.

In FY 2010, funds were used to complete and the Remedial Investigation Report (RI), award the contract to complete the Feasibility Study (FS)/Data Gap Analysis/Groundwater Modeling, conduct groundwater sampling and analysis to detect potential contaminant migration, and provide environmental outreach products and services to the affected community.

In FY 2011, funds are scheduled to continue the FS, in addition to performing annual groundwater sampling and analysis to detect potential contaminant migration.

In FY 2012, funds will be used to finalize the FS and initiate the Proposed Plan, in addition to performing annual groundwater sampling and analysis to detect potential contaminant migration.

* The total estimated federal cost reflects a preliminary estimate of costs to complete the study phase of the CERCLA process through the Record of Decision (ROD). A preliminary cost estimate for a range of potential long-term site remedies will be developed in the FS.

** The completion schedule for this site will depend on the USACE selection of potential long-term remedies (cleanup standards and technologies) developed for this site in the RI, FS, PP, and ROD and on the national program funding priorities and constraints.

Site	Total Estimated Federal Cost \$	Allocation Through FY 2009 \$	Allocation for FY 2010 \$	ARRA Allocation \$	Allocation FY 2011 \$	Requested Allocation FY 2012 \$	Additional to Complete After FY 2012 \$
Linde Air Products Tonawanda, NY Buffalo District	359,858,896	261,858,896	6,500,000	N/A	10,500,000	14,500,000	66,500,000

The Linde site is located at 135 East Park Drive in the Town of Tonawanda, a suburb north of Buffalo, NY. The site is owned by Praxair Technology Incorporated. The Linde site is a former industrial complex in an urban area that now serves as the worldwide research and development facility for Praxair with approximately 1,400 workers on site. A public elementary school and numerous residential properties adjoin the property. During the 1940s the Linde Division of the Union Carbide Corporation used portions of the properties for processing of uranium ores in support of the Manhattan Engineering District (MED) activities to develop the nation's first atomic weapons. The USACE is remediating radiological contamination in the soils, buildings, and groundwater under the authority of the FUSRAP and in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). The USACE coordinates project activities with the New York State Department of Environmental Conservation, the New York State Department of Health, the U.S. Environmental Protection Agency and the public through a diverse environmental outreach program.

In FY2010, the Corps continued the excavation and off-site disposal of contaminated soils at the Linde site. The USACE also completed a statistical analysis of potential cost and schedule risks and impacts to accomplish cleanup at the site and advanced additional real estate acquisitions required to complete the project.

In FY2011, funds are scheduled to continue the remediation of contaminated soils at the Linde site.

In FY2012, funds will be used to continue the remediation of contaminated soils at the Linde site.

* The total estimated Federal cost is increased to include \$25,051,000 of USDOE costs not previously included and \$106,000,000, estimated by the Corps in its Cost-Schedule Risk Analysis, as the 80% confidence cost to complete remedial action at the site.

**The completion schedule will depend on actual volumes of contaminated soils encountered at the site and national program funding priorities and constraints.

Site	Total Estimated Federal Cost \$	Allocation Through FY 2009 \$	Allocation for FY 2010 \$	ARRA Allocation \$	Allocation FY 2011 \$	Requested Allocation FY 2012 \$	Additional to Complete After FY 2012 \$
Niagara Falls Storage Site Lewiston, NY Buffalo District	326,236,000 -TBD	57,318,814	3,728,357	4,680,549	3,500,000	3,600,000	253,408,280 -TBD

The Niagara Falls Storage Site (NFSS) is located at 1397 Pletcher Road in the Town of Lewiston, NY approximately 19 miles north of Buffalo, NY. The NFSS is a 191-acre Federally-owned site with significant environmental impacts from past activities supporting the nation's early atomic weapons programs under the Manhattan Engineer District (MED) and Atomic Energy Commission (AEC). The site contains a 10-acre Interim Waste Containment Structure (IWCS) built by the US Department of Energy (USDOE) in the 1980s to store high-activity radioactive wastes brought to the site from around the country in the 1940s and 1950s. The USACE mission at the NFSS consists of three components. First, the USACE serves as the federal site operator and maintains the facilities and grounds to ensure physical and environmental security. Second, the USACE conducts an environmental surveillance program to ensure that the wastes stored in the IWCS are not migrating off site or subjecting the public to a radioactive dose exceeding federal standards. Third, the USACE is conducting a comprehensive environmental investigation of the IWCS, site soils, groundwater, facilities and infrastructure to evaluate the nature and extent of contamination, the associated human health and ecological risks, and the cleanup alternatives to mitigate risk for long term future land use. The USACE works closely with local, state, and federal law enforcement and homeland security specialists to ensure the site's physical security. The USACE coordinates project activities with the New York State Department of Environmental Conservation, the New York State Department of Health, the U.S. Environmental Protection Agency and the public through a diverse environmental outreach program.

In FY 2010, American Recovery and Reinvestment Act (ARRA) funding was used to award contracts for completion of a digital record file, design and installation of physical and electronic security systems, and demolition and off-site disposal of Building-401. The records management contract was completed in December 2010 and the remaining ARRA work will be completed by September 2011.

In FY 2010, the Corps completed all environmental surveillance, site operations, and maintenance activities, prepared the Draft RIR Addendum, completed the NFSS FS Work Plan, developed the IWCS FS Radon Technical Memorandum, and characterized investigative derived/legacy wastes. The Corps also awarded contracts for the off-site disposal of investigative derived/legacy wastes and the completion of the IWCS Feasibility Study. Execution of public information sessions and outreach activities also occurred and were related to sampling performed at LewPort Schools; Building 401; RAB determination; and technical facilitation.

In FY2011 funds will be used to complete and publicly release the RIR Addendum and three IWCS FS Technical Memoranda (i.e., Radon, Exposure Assessment and Waste Disposal Options/Fernald Lessons Learned) to support the NFSS IWCS Feasibility Study, issue fact sheets explaining the objectives of the IWCS FS Technical Memoranda, initiate drafting of the two remaining technical memorandums and the ICWS FS Report, execute public information sessions and outreach activities, complete off-site disposal of investigative derived/legacy wastes, and perform annual environmental surveillance and maintenance activities. Additionally, contracts will be awarded for a technical facilitator to enhance stakeholder relations and engagement an operation and maintenance activities for the electronic security system.

In FY2012 funds will be used to complete and publicly release two IWCS FS Technical Memoranda (i.e., Remedial Alternatives Technology Development, and Remedial Action Objectives and Applicable and Relevant and Appropriate Requirements (ARARs)) to support the NFSS IWCS Feasibility Study, drafting the ICWS FS Report, execute public information sessions and outreach activities including technical facilitated services, and perform annual environmental surveillance and maintenance activities. Additionally, contracts will be awarded to obtain additional Balance of Plant data for the FS on this operable unit.

* The scope of this project includes seven Operable Units (NFSS-IWCS, NFSS Soils, NFSS Groundwater, NFSS Off-Site Underground Utilities Impacts, and the Off-Site Vicinity Properties E, E-Prime, and G).

** Updated Federal costs for the NFSS-IWCS is expected to be completed in 2013 with the completion of the IWCS Feasibility Study. The ultimate Federal project cost for closing out all Operable Units will be known upon completion of Records of Decision for all seven Operable Units.

*** The completion schedule for this site will depend on the USACE selection of potential long-term remedies (cleanup standards and technologies) developed for this site in the RI, FS, PP, and RODs for all Operable Units and on the national program funding priorities and constraints.

Site	Total Estimated Federal Cost \$	Allocation Through FY 2009 \$	Allocation for FY 2010 \$	ARRA Allocation \$	Allocation FY 2011 \$	Requested Allocation FY 2012 \$	Additional to Complete After FY 2012 \$
Seaway Site Tonawanda, NY Buffalo District	44,230,224	9,262,502	331,832	N/A	250,000	200,000	34,185,890

The Seaway Site is located between River Road and the I-190 expressway in the Town of Tonawanda, 10 miles north of Buffalo, New York. The Seaway Site is owned by Benderson Development Corporation and is a closed commercial landfill of 93-acres. The site is contaminated with radiological wastes, disposed in the landfill by Ashland Oil, which originated from the Linde site approximately 2 miles to the east. During the 1940s the Linde Division of the Union Carbide Corporation processed uranium ores in support of the Manhattan Engineering District (MED) activities to develop the nation's first atomic weapons. At the Seaway Site, approximately 16 acres of the closed landfill are contaminated with radiological waste, including thorium, uranium and radium. There are six areas associated with the Seaway Site; Areas A, B, C, D, Seaway Southside and Seaway Northside. Areas A, B and C are located within the landfill containment system. Cleanup of accessible (i.e., outside of the landfill) Area D soils was included in the Record of Decision (ROD) for the remediation of the Ashland 1 and 2 Sites. During remediation of the adjacent Ashland 1 and 2 Sites contamination was identified outside of the landfill containment system that extends beyond the fence line to the north and south sides of the Seaway Site that is considered as part of the Seaway Site (Seaway Northside and Southside). The Record of Decision for the Seaway Site was signed by the U.S. Army Corps of Engineers in October 2010. The ROD selected Alternative-6 "Containment with Limited Off-Site Disposal" as the long-term remedy for the site. Project activities are coordinated with the New York State Department of Environmental Conservation, the New York State Department of Health, the U.S. Environmental Protection Agency, and the public through a diverse environmental outreach program.

In FY 2010 funds were used to publicly release the Record of Decision (ROD) and begin preliminary remedial design activities.

In FY 2011 the Corps continues remedial design activities to implement the ROD (develop a land use control plan) and supports environmental outreach activities.

In FY 2012 funds will be used to continue remedial design activities and provide environmental outreach services as needed.

*The schedule to initiate and complete remedial action will depend on national program funding priorities and constraints.

Site	Total Estimated Federal Cost \$	Allocation Through FY 2009 \$	Allocation for FY 2010 \$	ARRA Allocation \$	Allocation FY 2011 \$	Requested Allocation FY 2012 \$	Additional to Complete After FY 2012 \$
Sylvania Corning Plant Hicksville, NY New York District	TBD*	8,070,000	4,500,000	4,500,000	1,243,000	1,000,000	TBD*

The Sylvania Corning Plant (Hicksville) site consists of a total area of 10.5 acres divided into three separate properties located at 70, 100, and 140 Cantiague Rock Road. The Verizon entities, current owners of the 140 and 70 properties and lessees of the 100 property, are the corporate successors to the Atomic Energy Commission's (AEC) contract operator. The facility was used for two distinct but similar operations. The first operation (1952-1965) was under contracts with the AEC for research, development and production primarily in support of the Government's nuclear weapons program. The other operation (1952-1967) was AEC licensed work primarily for the production of reactor fuel, and other reactor core components. Radioactive materials, metals and volatile organic compounds were discharged to the plant sumps, which contaminated site soils and groundwater. Coordination is ongoing with the New York State Department of Environmental Conservation, and Verizon entities.

FY 2009, the Corps continued a Remedial Investigation and Baseline Risk Assessment and stakeholder coordination.

American Recovery and Reinvestment Act (ARRA) funds are being used to expedite the remedial investigation of contaminated groundwater at the site.

In FY 2010, the Corps completed the Remedial Investigation and Baseline Risk Assessment.

FY 2011 funds are being used to commence the preparation of a Groundwater Feasibility Study.

FY 2012 funds will be used to finalize the draft Feasibility Study.

*Study costs only, a preliminary cost estimate for site remediation, if necessary, will be determined during the development of the Feasibility Study. The completion schedule will depend on the cleanup standards for the site established in the Record of Decision and overall funding constraints.

Site	Total Estimated Federal Cost \$	Allocation Through FY 2009 \$	Allocation for FY 2010 \$	ARRA Allocation \$	Allocation FY 2011 \$	Requested Allocation FY 2012 \$	Additional to Complete After FY 2012 \$
Tonawanda Landfill Vicinity Property Tonawanda, NY Buffalo District	4,810,375 - TBD	750,000	499,899	901,733	1,775,000	640,000	243,743 - TBD

The Tonawanda Landfill Vicinity Property is located in the Town of Tonawanda, a suburb north of Buffalo, NY. The Tonawanda Landfill Vicinity Property consists of two separate parcels of property, or Operable Units; the Tonawanda Landfill Operable Unit (OU) and the Mudflats OU, both located about one mile north of the Linde Site. Both Operable Units are owned by the Town of Tonawanda. The Tonawanda Landfill OU was operated as a municipal landfill by the Town of Tonawanda from the 1930s through 1989, and accepted a variety of waste including incinerator ash, sewage sludge, construction debris, municipal waste, and yard waste. The Mudflats OU is a vacant property, apparently used in the past for pasture or agricultural purposes, and most recently used by the Town of Tonawanda for temporary storage of yard waste, mulch, road repair debris, etc. The Town of Tonawanda is currently planning to develop the Mudflats for commercial use. Early investigations by the US Department of Energy (USDOE) found isolated locations at the site contaminated with Formerly Utilized Remedial Action Program (FUSRAP) material. However, no documentation has ever been found indicating the origin of the material or how it was placed at the site. The USACE completed a Remedial Investigation in 2005, and issued a Proposed Plan for the site in 2007, which recommended No Action for both the Tonawanda Landfill and Mudflats OUs. A No Action Record of Decision was issued for the Mudflats OU in 2008; however, based on public comments received on the Proposed Plan, the Corps decided to conduct additional sampling in the Tonawanda Landfill OU to confirm whether a hazard exists that warrants further action. Project activities are coordinated with the New York State Department of Environmental Conservation, the New York State Department of Health, the U.S. Environmental Protection Agency, and the public through a diverse environmental outreach program.

In FY 2010, funds were used to conduct Phase 2 Remedial Investigation sampling in the Tonawanda Landfill Operable Unit (OU) and draft the sampling report.

American Recovery and Reinvestment Act (ARRA) funds are being used to execute the contract to complete Phase 2 Remedial Investigation sampling in the Tonawanda Landfill OU.

In FY 2011, the Corps is scheduled to complete the Phase 2 Remedial Investigation Sampling Report and begin preparation of the updated Baseline Risk Assessment (BRA).

In FY2012 funds will be used to complete the updated BRA and publicly release the findings. Based upon the results of the BRA, the Corps will make a decision to either proceed with a "No Action" Record of Decision, or initiate a Feasibility Study to identify and evaluate potential long-term remedies to mitigate unacceptable human health/ecological risks at the site.

* The total cost currently reflects investigation costs through completion of the Record of Decision for the Tonawanda Landfill OU. Remediation costs will not be estimated until a determination is made whether remediation is required for the Tonawanda Landfill OU, based on the results of the supplemental investigations.

OHIO

Site	Total Estimated Federal Cost \$	Allocation Through FY 2009 \$	Allocation for FY 2010 \$	ARRA Allocation \$	Allocation FY 2011 \$	Requested Allocation FY 2012 \$	Additional to Complete After FY 2012 \$
Former Harshaw Chemical Company Cleveland, OH Buffalo District	18,255,551 - TBD	14,390,000	1,474,649	N/A	800,000	400,000	1,190,902 - TBD

The former Harshaw Chemical Company site is located at 1000 Harvard Avenue, approximately 3 miles south of downtown Cleveland, OH. The site consists of 12 real estate parcels owned by several owners including BASF Incorporated and Chevron Corporation. The site is approximately 40-acres in size and is located in a predominately industrial setting on the banks of the Cuyahoga River. From 1944 through 1959, the Manhattan Engineering District (MED) and the Atomic Energy Commission (AEC) contracted the Harshaw Chemical Company to process uranium in support of the Nation's early atomic energy program. Various forms of uranium were produced for shipment to Oak Ridge, Tennessee, for isotopic separation and enrichment. In 1960, the site was released for unrestricted use by the AEC, following decontamination efforts by the Harshaw Chemical Company, under the guidance of the AEC. The USACE coordinates project activities with the Ohio Environmental Protection Agency, the Ohio Department of Health, the U.S. Environmental Protection Agency and the public through a diverse environmental outreach program.

In FY 2010 the Corps publicly released the Revised Remedial Investigation Report and "No-Action" PP for Investigative Area-06 parcel, awarded contracts and initiated the Feasibility Studies for site-wide soils and groundwater, prepared the Record of Decision for the Investigative Area-06 parcel and, conducted annual groundwater sampling, testing and reporting.

In FY 2011 funds are scheduled to complete the Draft Feasibility Study for site-wide soils and groundwater, publicly release the Record of Decision for the Investigative Area-06 parcel, and conduct annual groundwater monitoring activities.

In FY 2012 funds will be used to complete the Feasibility Study for site-wide soils and groundwater and conduct annual groundwater sampling, testing and reporting.

* The total estimated federal cost reflects a preliminary estimate of costs to complete the study phase of the CERCLA process through the Record of Decision (ROD). A preliminary cost estimate for a range of potential long-term site remedies will be developed in the FS.

** The completion schedule for this site will depend on the USACE selection of potential long-term remedies (cleanup standards and technologies) developed for this site in the RI, FS, PP, and ROD and on the national program funding priorities and constraints.

Site	Total Estimated Federal Cost \$	Allocation Through FY 2009 \$	Allocation for FY 2010 \$	ARRA Allocation \$	Allocation FY 2011 \$	Requested Allocation FY 2012 \$	Additional to Complete After FY 2012 \$
Luckey Site Luckey, OH Buffalo District	326,033,503	17,373,705	1,550,000	1,118,000	900,000	720,000	304,371,798

The Luckey Site is located at 21200 Luckey Road near the village of Luckey OH, 22 miles southeast of Toledo. The site is approximately 40-acres in size and is a former magnesium processing facility built in 1942 by the Federal government. The site is currently owned by Abdoo Wrecking, LLC. In 1949, the Atomic Energy Commission (AEC) constructed a beryllium production facility at the site which was operated by private contractors. The waste solutions and sludge from the beryllium production operations were stored in lagoons on the property. Waste solutions were also discharged into Toussaint Creek. In 1951 and 1952, the site operator purchased 1,000 tons of radiologically contaminated scrap steel from the Lake Ontario Storage Area in Lewiston, NY. The scrap steel is believed to be the source of the radiological contamination. In 1958, beryllium production operations ceased and in 1961 the Federal General Services Administration transferred the property to private ownership. FUSRAP contamination on site consists of both radiological and chemical wastes. The primary radiological contaminants at the site include radium, uranium and thorium. The primary chemical contaminants at the site are beryllium and lead. The USACE coordinates project activities with the Ohio Environmental Protection Agency, the Ohio Department of Health, the U.S. Environmental Protection Agency and the public through a diverse environmental outreach program.

American Recovery and Reinvestment Act (ARRA) funding was used to complete field investigations to gather data and further refine the contaminated soil volume estimates which will reduce cost and schedule risk for completing the project.

In FY 2010 the Corps completed field characterization to refine the contaminated soil volume estimate, continued the remedial design process, rehabilitated site groundwater monitoring wells, and conducted annual groundwater sampling and testing to monitor potential migration of radiological contaminants in groundwater.

In FY 2011 funds are scheduled to finalize the soil volume estimation report, install and abandon off-site monitoring wells, complete the remedial action scope of work and, perform annual groundwater sampling and reporting activities.

In FY 2012 funds will be used to remove Investigation Derived Waste (IDW) stored on-site, continue remedial design lead-up activities, and conduct annual groundwater sampling, testing and reporting activities.

*The schedule to initiate and complete remedial action will depend on national program funding priorities and constraints.

Site	Total Estimated Federal Cost \$	Allocation Through FY 2009 \$	Allocation for FY 2010 \$	ARRA Allocation \$	Allocation FY 2011 \$	Requested Allocation FY 2012 \$	Additional to Complete After FY 2012 \$
Painesville Site Painesville, OH Buffalo District	54,251,353	26,357,353	6,425,000	15,246,146	1,000,000	3,600,000	1,622,854

The Painesville Site is a privately owned 30-acre site located approximately 22 miles northeast of Cleveland, Ohio. In the early 1940's, the Defense Plant Corporation financed construction of a magnesium production facility on property acquired by the Federal Government. The Diamond Magnesium Company received approximately 1,650 tons of FUSRAP-related radiologically contaminated scrap steel from the Lake Ontario Storage Area, which resulted in contamination of the site. The site is contaminated with radiological waste, including uranium, radium, thorium, and their natural decay products. This site is currently owned by Chemtura Corporation, Inc. Uniroyal Rubber Co., Inc., a predecessor to Chemtura, closed this facility in July 1999. The plant has been demolished and the owner is performing environmental remediation for chemical contamination. Approximately 1,330 cubic yards of contaminated soils were removed from the site in the fall of 1998 under an Engineering Evaluation/Cost Analysis (EE/CA) and Action Memorandum. Circumstances did not permit complete removal of radiological contamination under the EE/CA so the Corps initiated a focused Remedial Investigation/Feasibility Study (RI/FS) to determine the extent of additional contamination and establish the final cleanup criteria. The Corps completed the Proposed Plan in 2005, and the Record of Decision was signed in 2006 establishing the remedy of excavation and off site disposal of radiological contaminants exceeding the cleanup criteria. Site remediation was initiated in 2007, and 9,400 cubic yards (cy) of contaminated soil were excavated and disposed of offsite before additional soil contamination found during the site remediation effort required that remediation be halted in 2008, due to funding and contract capacity constraints. The total estimated volume of contaminated soil has increased from the original estimate of 5,800 cy to 35,100 cy, requiring a funding increase of approximately \$32,800,000 to complete site remediation. The Painesville site is being coordinated with the Ohio Environmental Protection Agency, the Ohio Department of Health, the U.S. Environmental Protection Agency, and the public through a diverse environmental outreach program.

In FY 2010 funds were used to complete the remedial action work plans and resume remedial action fieldwork. Approximately 11,000 cy of soil were remediated in FY 2010 using an innovative soil-segregation process.

American Recovery and Reinvestment Act (ARRA) funding is being used to fund the remediation contract for remediation of contaminated soils.

In FY 2011 the Corps continues remedial action fieldwork in compliance with Corps standards for quality, safety, and health.

In FY 2012 funds will be used to complete the Painesville site remediation (at the 80% confidence level for contaminated soil volumes) and initiate site closeout activities.

*The completion schedule will depend on actual volumes of contaminated soils encountered at the site and national program funding priorities and constraints.

PENNSYLVANIA

Site	Total Estimated Federal Cost \$	Allocation Through FY 2009 \$	Allocation for FY 2010 \$	ARRA Allocation \$	Allocation for FY 2011 \$	Requested Allocation FY 2012 \$	Additional to Complete After FY 2011 \$
Shallow Land Disposal Area (SLDA) Parks Township, PA Pittsburgh District	193,536,810	14,590,000	17,200,000	N/A	16,600,000	13,000,000	132,146,810

The Shallow Land Disposal Area (SLDA) site encompasses 44-acres of land located in Parks Township, Pennsylvania located about 23 miles northeast of Pittsburgh, Pennsylvania. A nuclear fuel production facility located in Apollo, Pennsylvania generated wastes that were emplaced into a series of 10 trenches at the Shallow Land Disposal Area (SLDA) from the period 1960 to 1970. The contamination is believed to consist primarily of uranium and thorium associated with production of nuclear materials at the Apollo facility. The 10 trenches occupy an area of about 1.2 acres of the 44-acre Shallow Land Disposal Area. The site is currently owned by BWX Technologies and operates under a Nuclear Regulatory Commission (NRC) license. Any future U. S. Army Corps of Engineers (USACE) activities at the site will be consistent with the Memorandum of Understanding (MOU) between the USACE and the NRC for coordination on cleanup and decommissioning of the FUSRAP sites with NRC-licensed facilities, dated July 5, 2001. This project is being coordinated with Pennsylvania Department of Environmental Protection, Pennsylvania Department of Health and USEPA.

In FY 2010, the Corps completed the Final Status Survey Plan and initiated construction of site infrastructure to support remedial actions.

FY 2011 funds are scheduled to complete site infrastructure construction, obtain NRC license suspension, and begin remedial actions (excavation of three trenches).

FY 2012 funds will be used to continue soil and radiologic material remediation.

*Based on cost estimate for site remediation contained in the ROD (September 2007) plus the administrative cost developed in December 2007.

Site	Total Estimated Federal Cost \$	Allocation Through FY 2009 \$	Allocation for FY 2010 \$	ARRA Allocation \$	Allocation FY 2011 \$	Requested Allocation FY 2012 \$	Additional to Complete After FY 2012 \$
Superior Steel Site Scott Township, PA Buffalo District	13,909,754 - TBD	215,000	50,000	N/A	350,000	0	13,294,754 - TBD

The former Superior Steel Site is located in Scott Township, PA about five miles southwest of downtown Pittsburgh. The Superior Steel Site property is a 25-acre site which has five interconnected warehouse buildings (known as "Building 23"). The site processed uranium metal in support of the Atomic Energy Commission (AEC) fuel element development program between 1952 and 1957. In addition, the site was commercially licensed by the AEC in 1956 to "...receive possession of thorium metal for rolling and cutting" until the license expired in 1958. The AEC operations at the Superior Steel Site resulted in uranium-contaminated building surfaces and subsurface contamination and a collection of investigation-derived waste from a previous remediation by the current site owner, a small manufacturing firm "Superbolt, Incorporated". The USACE is authorized under the FUSRAP to investigate and respond to AEC contamination at the site. Any residual radioactive contamination resulting from the former commercial processing of thorium metal is not eligible for cleanup by the USACE under FUSRAP. The USACE coordinates proposed investigative and remedial activities with the Pennsylvania Department of Environmental Protection, the U.S. Environmental Protection Agency, and the public through a diverse environmental outreach program.

In FY2010, funds were used to complete the Historic Air Photo Analysis which will assist in identifying past AEC impact areas and ground disturbances to be targeted for field sampling later in the investigation.

In FY2011, funds are scheduled to award a contract to complete the Site Ownership and Operational History (SOOH) Report. This report will establish a historical record of past AEC and non-AEC operations, potential environmental impacts, and a legal analysis of potential environmental liabilities for site owners and operators.

Due to budget constraints, funds are not requested for this site in FY12.

* The total estimated federal cost reflects a preliminary estimate of costs to complete the study phase of the CERCLA process through the Record of Decision (ROD). A preliminary cost estimate for a range of potential long-term site remedies will be developed in the FS.

** The completion schedule for this site will depend on the USACE selection of potential long-term remedies (cleanup standards and technologies) developed for this site in the RI, FS, PP, and ROD and on the national program funding priorities and constraints.

APPROPRIATION TITLE: Formerly Utilized Sites Remedial Action Program, Fiscal Year 2012

NATIONAL

Site	Total Estimated Federal Cost \$	Allocation Through FY 2009 \$	Allocation for FY 2010 \$	ARRA Allocation \$	Tentative Allocation FY 2011 \$	Requested Allocation FY 2012 \$	Additional to Complete After FY 2012 \$
Potential Sites / Contingencies	TBD*	2,684,000	4,216,000	N/A	1,682,000	15,000	TBD*

The Department of Energy (DOE) considered several hundred sites in the public and private sectors for the potential for residual radioactive contamination as a consequence of work accomplished in support of nuclear energy technology development that began in the early 1940s by the Manhattan Engineer District (MED). Of these considered sites, a limited number initially were designated for remediation under FUSRAP and the others were eliminated from further consideration at that time. Thereafter, the DOE notifies the Corps of new information changing the status of eliminated sites to that of eligible according to FUSRAP criteria.

FY2009 funds were used to complete preliminary assessments at a number of sites referred by DOE, and if necessary, site inspections or other activities to determine if there is a release or threat of a release of a hazardous substance into the environment that will present an imminent and substantial danger to public health or welfare, and whether the site should be added to FUSRAP as an active site for further study and remediation.

FY2010 funds were used to complete preliminary assessments at a two sites recently referred by DOE.

FY2011 funds will be used to complete preliminary assessments for sites referred by DOE and to handle minor project contingencies.

FY2012 funds will be used to complete preliminary assessments for sites referred by DOE and to handle minor project contingencies.

*To Be Determined (TBD). Any new sites added to FUSRAP as a result of the preliminary assessment/site inspection performed with these funds will be included in future budgets.

RECREATION

Appropriation Title: Operation and Maintenance – Fiscal Year 2012

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost of Continuing Program	\$6,792,000
Appropriation for FY 2010	\$6,792,000
Budget for FY 2011	\$6,792,000
Increase in FY 2012 from FY 2011	\$0

Performance Based Budgeting Support Program \$4,000,000

AUTHORIZATION: The Government Performance and Results Act of 1993 (GPRA) and under general authorities contained in various laws.

JUSTIFICATION: The President's management agenda and GPRA requires that the Corps implement performance based budgeting for Civil Works Operations and Maintenance. The Performance Based Budgeting Support Program addresses this requirement by the collection, management and distribution of data; seeking new methods for linking performance to annual budget requests; and for analyzing the potential economic impacts on service to customers of varying budget levels.

- a. Civil Works Business Function Information: Provides critical data and information related to Civil Works project inventories, outputs and performance measures; and for the operational and strategic management of Corps' projects, programs, budget development and studies that directly support the Navigation, Hydropower, Recreation, Environment (Stewardship, Compliance, Restoration), Water Supply and Flood Risk Management Business Line missions. This information supports the Corps O&M program and is the sole source for the Corps, other Federal agencies, partners, stakeholders, and public. These funds include supporting the collection, database management, integration, standardization, operation, enhancement, quality control, user assistance, training, compliance with security requirements and ACE-IT services. The IT activities are also reported under OMBIL-Plus in ITIPS and the annual OMB 300b submittal accounting for \$1,568,000 of the overall OMBIL-Plus costs. Lack of funding for this program would significantly reduce the Corps' ability to produce efficient, effective, and timely performance measures for budgeting, management and the prioritization of capital investment decisions.
- b. Civil Works Performance Measurements: Work includes improvement and integration of business line performance measurements to be incorporated into the budget decision-making process; support for the Office of Management & Budget's performance driven initiatives; and support for the future Corps budget preparation process. Efforts focus on the refinement of corporate performance principles; and program and project level performance measures that focus on anticipated performance and output at different levels of funding. Aligns and integrates with the O&M business processes - navigation, hydropower, flood risk management, recreation, water supply and environment. These measurements, at different organizational levels, provide the analytical basis to identify the incremental return on investment in Corps programs at various funding levels and to make adjustments in priorities both at the program and project levels concerning efficiency of facilities or services. Comparison of across business lines measurements among projects at all levels helps focus management attention on the priorities of programs and projects related to capital investments principles..
- c. Civil Works Business Analysis: This task analyzes data using statistical and other analytical techniques and tools to uncover relationships among budget, expenditures and performance within and between Corps business line processes. The relationships and statistics drawn from the data will provide evidence to support capital investment priorities and decisions increasing the Corps ability to delivery business line service in the most efficient and effective manner. This

task will also develop effective products to explain relationships found in the data and allow decision-makers to visualize cause and effect. This task links the data gathering, collection and distribution, and use of data in the decision-making process.

PROPOSED ACTIVITIES FOR FY 2012: FY 2012 funds will provide enhanced continuing support of Civil Works O&M integrated business line information systems; centrally distributed performance measures, outputs and system inventory information; and evaluation of new measures. FY 2012 funds will also support enhanced development of cross business output-result oriented performance measures of the incremental return on investment in Corps Civil Works program area including the investigation, acquisition and integration of decision-making software. The funding provides enhanced support for all business line but an increased focus for flood risk management, water supply, environmental restoration for the data entry modules and integration.

ACCOMPLISHMENTS IN PRIOR YEARS: Included were newly fielded centralized natural resource, water supply collection system and user's training in OMBIL Plus data entry and access. The One-stop access for much of Civil Works budget performance information was expanded for budget submittals in lieu of separate data calls. An integrated data set for all business lines was created with data for FY1999-2010 providing trend information for analysis. Performance data was merged with P2 for use in the navigation budget development process eliminating data calls and providing nationally standardized information. The inclusion of asset management and capital investment principals were considered.

Recreation Management Support Program \$1,650,000

AUTHORIZATION: This program is conducted under the general authority of PL 78-534, the Flood Control Act of 1944 (58 Stat. 887).

JUSTIFICATION: The recreation program serves almost 400 million recreation visitors and generates about \$40 million in revenue annually. Visitors spend over \$18 billion annually to engage in recreation at Corps projects; over 350,000 full and part time jobs are associated with this spending.

The RMSP supports the recreation program through the conduct of focused management studies to improve operational efficiencies and the provision of technical assistance, to include technology transfer and technology support and maintenance for recreation specific automated information systems. The RMSP supports strategic planning for and performance monitoring of the Corps recreation business program, subject to the Government Performance and Results Act (GPRA).

The RMSP has 3 major components, which together provide comprehensive support to the Corps Recreation Business Program:

1. Focused Management Studies. RMSP provides focused management studies and reports to acquire and analyze information about recreation trends, accessibility, emerging issues, user conflicts, visitor diversity, use fee impacts and similar elements affecting the Corps recreation program. Analyses are conducted to support the recreation area modernization program, implementing facility and service standards, and in similar product delivery improvement efforts. Information and technology transfer pursuant to these studies is funded by the RMSP. Ongoing trends analysis provides valuable data on which to base decisions about necessary short and long term adjustments to the program to meet public needs.
2. Management/Technical Assistance. RMSP provides technical assistance to the Recreation Community of Practice in the development of management tools, which quantify recreation program outputs and relate them to customer needs and budget allocations for the purpose of measuring performance. This includes gathering and analyzing information about customer satisfaction with the Corps recreation program. RMSP assures the field workforce is equipped with "state-of-the-art" skills and knowledge to deal with a rapidly changing public. RMSP provides technical support and maintenance of performance based budgeting tools,

visitation monitoring and analysis systems, fee collection and reporting, economic analysis, facility inventory and condition assessment, and similar automated information programs. RMSP provides short-term assistance to projects in solving specific technical problems.

3. Support to Recreation Program Strategic Planning. Funding to support the activities of the Recreation Leadership Advisory Team (RLAT) is included in this program. The RLAT is composed of representatives from the division, district and project levels of the Corps natural resources management program. It provides input, advice and support to the Corps strategic planning for the recreation business program.

PROPOSED ACTIVITIES FOR FY 2012: Minimum/Recommended Program: Actions resulting from the implementation of the Recreation Strategic Plan will guide many of the support activities performed this FY. particularly in the areas of efficiency evaluation, communication and partnerships. The Recreation Budget Evaluation System (RecBEST) will be refined to increase the capability to monitor and report Recreation performance measures and evaluate and prioritize budget submissions in response to OMB guidance. The Recreation module of the Natural Resource Management Gateway will be further developed to address high priority needs. Demonstrations will be conducted to identify and communicate the benefits of the Corps recreation program and improve effectiveness in addressing the needs of ethnic minority visitors. Emphasis will be placed on improving recreation use monitoring procedures that will be incorporated into recreation performance measures. Customer satisfaction survey methods and benchmarking capabilities will be refined and fully integrated into program performance measures. Technical support will be provided to field staff to implement improved procedures. Support will be provided to standing NRM committees and task forces including: , Partnership Advisory Committee, Ranger CoP, Water Safety, Career Development etc. Support will be provided to Headquarters Recreation program staff regarding strategic planning, development of program evaluations, staffing evaluation and other high priority Headquarters initiatives. Provides resources for evaluation tasks associated with the implementation of the National Recreation Program Road Map.

ACCOMPLISHMENTS IN PRIOR YEARS:

Recent accomplishments include conducting an evaluation of NRM Staffing levels, support for the Recreation Strategic Planning team, development and implementation of a national survey of Park Rangers, refinement of the OMBIL Recreation module and development of platforms to market the CE recreation program on social media websites, (i.e. FaceBook and YouTube). Other past products include Recreation Budget Evaluation System (RecBEST), visitation estimation methodology and data collection and reporting tools, economic impact methodology and analysis tools, customer satisfaction survey and benchmarking tools implemented at all CE projects, studies on recreation preferences of ethnic groups including cross-cultural communication issues, and support for development of a strategic context as a foundation for transitioning to a performance based environment, to include performance based budgeting. The Natural Resources Management Gateway was developed as a knowledge management tool for the NRM community and is compatible with other Corps KM and Community of Practice initiatives. The Corps Lakes Gateway was developed and provides information to millions of visitors annually on recreation opportunities at Corps projects (in FY10 over 45 million page views). The Corps Lakes Gateway also delivers Corps recreation information to the interagency RecreationOneStop project in support the Administration's E-GOV initiative. Guidance and appropriate tools were developed to improve interpretive services associated with the CE recreation program that advance the public's understanding of the environment and the Corps Environmental Operating Principles. Support to Headquarters was provided to refine the recreation business program strategic plan, utilizing input from the RLAT and stakeholders. Goals and objectives were refined, and actions identified to achieve them. Innovative partnership approaches were developed and field guidance prepared to improve stakeholder participation. Stakeholder outreach was conducted to develop partnerships for strategic initiatives.

Stewardship Support Program \$750,000

AUTHORIZATION: This program is conducted under the authority of ER 1130-2-540, Chapter 7.

JUSTIFICATION: The Stewardship Support Program (SSP) was established in FY 02 to provide broad support to Environment-Stewardship function at operating projects by assisting in the identification of national program needs, the development of new national program activities, strategic program planning, and the recommendation of national stewardship program funding priorities. Support will be provided in refining the Environment–Stewardship business program strategic

plan and goals, and budget processes, to address the targeted outcomes of the overall Corps CW Strategic Plan, using input from the Stewardship Advisory Team, other associated Corps business programs and stakeholders. Goals and objectives have been refined, and actions will be identified to achieve them. Funding this program from a single source reflects the nationwide application and supports standardization in program direction and outputs.

The SSP supports the Environment–Stewardship program by addressing issues or initiatives that have a broad applicability to many USACE Civil Works projects. The three basic components of the SSP are:

(1) Focused Management Actions and Studies. These activities are to implement a course of action or practice within field office activities, a region, or nationwide. Examples of management actions might include developing/ assembling an array of management practices for establishing riparian habitat, or creating a forum to share common experiences, build teams, and disseminate information. Examples of management studies might include the riparian corridors research or conducting studies on management of threatened and endangered species.

(2) Policy Guidance and Management Support. Such activities relate to the development and/ or implementation of guidance. Examples of policy guidance included facilitating cooperative agreements with stewardship non-governmental organizations, or amending the annual Budget Engineer Circular to provide emphasis on conducting inventories of regionally or nationally significant resources.

(3) Information Exchange. These activities are designed to build, integrate, and share our knowledge base to support greater understanding of the environment and the impacts of program work.

PROPOSED ACTIVITIES FOR FY 2012:

The SSP will conduct focused management action studies and recommend guidance to address high priority program efficiency and effectiveness concerns, including support for the development of a “Roadmap” for the Environmental Stewardship Program and refinement of the OMBIL Environmental Stewardship module. . Efforts will continue in support of performance based budgeting including further development of performance measures, development of strategies to improve program outputs and outcomes, and refinement of E-S BEST and related guidance to monitor program performance. Provides national support for two areas of strategic and performance priority within the Environmental Stewardship program. Identifying threats and significance of natural resources across the nation will provide a better evaluation and achievement of national strategic goals. Under the additional funding new technologies and national data sets will be utilized to more objectively and accurately evaluate threats and significance. Funding will also assist in the completion of the level one natural resources inventory and assessing conditions of project lands. Progress in recent years on developing standards, published protocols and web-based data entry programs have resulted in improvements in advancing completion of the inventories. Increased technical support to the field will provide training and guidance to assist in

completion of the level one inventories during 2011. This funding will result in completion of one of the PART measures and allow focus of 2013 funding to be targeted to other high priority needs.

The SSP will also continue support of the Environment-Stewardship Community of Practice (CoP) including further development of the NRM Gateway for information and technology exchange. These activities will provide benefits in increased program effectiveness through implementation of assessment recommendations. Improved program performance will be facilitated through increased CoP access to best practices and policy guidance, and effective development and execution of performance based budgets.

ACCOMPLISHMENTS IN PRIOR YEARS: The allocation of project operations and maintenance funds to conduct specified nationwide (multiple project) activities to improve the efficiency and cost effectiveness of the Environment-Stewardship business program has been employed, with subcommittee staff knowledge and concurrence, since the late 1990s for activities similar to those identified for FY 2012. Past products of the Stewardship Support Program include the initial set of Environment-Stewardship program performance measures, which are in accord with the Government Performance and Results Act and used to measure and monitor priority program outputs and outcomes; the Stewardship module of the Operations and Maintenance Business Information Link (OMBIL), which receives and stores selected data concerning the stewardship of project natural resources, and which provides for retrieval of that information by all levels of the Corps; the pilot version of the Environment-Stewardship Budget Evaluation System (E-S BEST) used to assist in developing budget scenarios and ranking budget proposals. Components of the Environment-Stewardship portion of the Natural Resources Management (NRM) Gateway, a knowledge management tool for the NRM community, have been completed and others are underway. Support to Headquarters was provided to develop and refine; the Environment-Stewardship business program strategic plan and 10-year development plan, the program management plan for the Environment-Stewardship Community of Practice, and the annual Environment-Stewardship program development guidance. Formulation of a methodology to evaluate the threats to, and significance of CE managed natural resources. This methodology is currently being implemented by NatureServe.

Optimization Tools for Navigation (OTN) Program \$392,000

AUTHORIZATION: Related efforts are necessary to provide practical quantitative & predictive tools and data for minimizing and optimizing the costs of dredging of Federal navigation projects, leveraging development & improvement of channel design criteria across the Corps, the U.S. Navy, & other government/academic institutions. These efforts are essential to providing data & analysis for efficient & effective management of critical national waterborne navigation infrastructure.

JUSTIFICATION: To maintain the Nation's Federal navigable waterways, nearly 270 million cubic yards of material are dredged in the U.S. annually. In addition, the national "2020" plan for deeper & wider channels to support emerging commercial cargo vessel designs brings great uncertainty on credible prediction of maintenance requirements. Changing political, engineering, environmental, & demographic factors will increasingly influence project costs. Additionally, constrained appropriations to support the O&M dredging program have resulted in full channel dimensions being available less than an average of 35% of the time at the 59 highest use U.S. harbors, with even lesser availability at lower use projects. This impacts the reliability and economic competitiveness of U.S. ports and raised stakeholder objections that the surplus in the Harbor Maintenance Trust Fund is not being appropriated for the purposes intended. OMB has requested the Corps develop metrics that would help demonstrate the return-on-investment to justify increased dredging funds. The National Navigation Operation & Management Evaluation Assessment System (NNOMPEAS) is being developed with the Waterborne Commerce Statistics Center (WCSC) to demonstrate whether such a metric can be provided across all harbors and waterways. This tool will use domestic & foreign trade data to determine & analyze the loaded drafts of vessels of all recorded vessel calls for individual harbors and channels & will provide for estimation of transportation cost benefits foregone with reduction or absence of maintenance and will offer the potential to optimize maintenance dredging requirements for individual channel reaches & across much of the overall USACE dredging program. The NNOMPEAS initiative is supported by the HQ Navigation Business Line Manager and by ASA(CW). A companion tool being

developed under the OTN program is the Channel Analysis Design Evaluation Tool (CADET), which will allow sophisticated vessel hull modeling not previously available. IWR is conducting this modeling activity jointly with ERDC & the U.S. Naval Academy (USNA). CADET will render advanced technologies for methods of analysis & compilation of new physical & numerically-generated data sets descriptive of vessel movement & response within confined waterways. Technological change & emerging vessel hull configurations in the shipping industry require prudent foresight & ongoing efforts to adequately plan for future maintenance dredging activities. Resulting datasets & analytical procedures will in turn be practically applied to more accurately determine channel dimension requirements associated with evolving or foreseeable vessel designs. This vessel hull modeling effort will also generate essential data on hull designs, vessel dynamics & channel configuration in order to optimize and minimize ongoing & future maintenance dredging requirements.

PROPOSED ACTIVITIES FOR FY 2010: Proposed FY 12 funds will be used to accelerate the nationwide deployment beyond the 59 high use ports of NNOMPEAS methodology and allow its use as a budgeting tool per the direction of HQ and OMB. These funds will also continue physical model hull construction & testing in collaboration with ERDC, NAVSEA-CARDERO, the USNA, & for the coordination & technical support for vessel motion research with completion of the analysis being undertaken regarding U.S. Naval vessel requirements.

ACCOMPLISHMENTS IN PRIOR YEARS: FY 09 and FY 10 funds were used to work with WCSC and the South Atlantic Division to develop NNOMPEAS linkages between vessel call and vessel characteristic data sets, develop discrete channel segments and compile dredging costs and quantities for these segments at selected proof-of-concept harbors, and conduct test runs for these harbors. FY 10 funds were used to complete the 59 high use ports and also supported continued work of ERDC, CARDERO, & IWR activities for improvements to CADET vessel hull modeling effort and initiation of physical testing of model hulls.

Appropriation Title: Operation and Maintenance – Fiscal Year 2012

National (Multiple Project) Natural Resources Management Activities

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost for Continuing Program	\$4,230,000
Appropriation for FY 2011	\$4,230,000
Allocation Requested for FY 2012	\$4,230,000
Increase in FY 2012 from FY 2011	\$0

AUTHORIZATION: This program is conducted under the general authority of PL 78-534, the Flood Control Act of 1944 (58 Stat. 887).

JUSTIFICATION: On December 10, 1996, House and Senate appropriations subcommittee staff determined it was appropriate to allocate a portion of Civil Works projects appropriated funds to conduct certain, specified operations and maintenance activities that benefit all or a majority of operating Civil Works projects. This determination was formalized in appropriations language in FY 2002. Funding these multiple project activities as single entities, rather than on a project-by-project basis, is efficient and cost effective, reducing administration costs and providing for efficient management and oversight. An example of such an activity is the procurement of park ranger uniforms through a contract administered by the National Park Service. Providing a nationwide funding source for centralized procurement of these items used by all operating projects having a natural resources management program precludes the need for funds to be transferred by each project or district to a single procurement agent, a savings of from 60 to 300 transactions a year.

PROPOSED ACTIVITIES FOR FY 2011:

Nationwide (multiple-project) activities that will be accomplished in FY 2012 with these funds include the following activities:

1. Environmental Management System (EMS) Implementation. The EMS has been implemented at 42 designated projects. Funding this as a nationwide activity will allow USACE auditors to review and validate EMS implementation completion at required facilities without transferring funds from each project to a central source. The development of case studies and outreach materials for lessons learned provide initiative and support for other facilities/projects wishing to implement EMS in FY12 and future years.
2. Natural Resources Management Career Development/Training Support and Material Development. Funds are used to address training and career development issues for the Natural Resources Management Community. The needs of all 2,000 NRM field staff in the Corps are served through the development of numerous products, including a number of exportable training courses to meet established training requirements. Funding this as a nationwide activity is appropriate because all NRM field staff benefit equally from the work accomplished.
3. Park Ranger/Manager Uniforms. The Corps purchases uniforms for field personnel through an inter-agency contract administered by the National Park Service. Funding this as an inter-agency effort and as a nationwide activity reduces the administrative costs by eliminating the requirement to transfer funds from each individual project to the NPS. Significant economies of scale have been achieved through this arrangement since 1984. Costs include the authorized employee allowance funds (including an HQ-approved increase in replacement allowance), NPS contract administration costs, buy out of discontinued items, program management/committee support, and the purchase of required emblems.

National (Multiple Project) Natural Resources Management Activities

4. Printing and Publishing - Printing of forms, brochures, and similar materials used by all Corps projects achieves economies of scale and reductions in total administrative and procurement costs. Materials include Annual Day Use Passes and Brochures. Printed materials are stored at the Corps Publications Depot for distribution to all projects upon request.
5. Sign Standards Manual and Software Update and MCX Operation. A Mandatory Center of Expertise provides technical support and assistance to all projects in the operation of the Corps Sign Standards Program, through the maintenance of the Sign Standards Program Manual and software and providing technical assistance to field users. These efforts allow the Corps to maintain a consistent image that we present to the visiting public. Funding this as a nationwide activity assures competent and timely assistance to users, which increases the consistency, effectiveness and efficiency of the sign program.
6. Volunteer Clearinghouse Operation. The Volunteer Clearinghouse is operated under contract with Goodwill Industries to support volunteer efforts at all Corps projects. Funding this as a nationwide activity achieves economies of scale through the use of a single contract and reduces administrative costs by eliminating the need to transfer funds from all projects to the single contracting element.
7. Water Safety Products. The Corps Water Safety National Operating Center produces and distributes water safety products and programs to all Corps projects. Products educate and inform visitors of the dangers associated with water-oriented recreation. Significant economies of scale have been realized through the centralized administration of this program that assures current and critical topics are covered, using effective media targeted to high-risk groups. Drownings and associated lawsuits have been reduced significantly since the implementation of this program in the mid 1980's. Current command emphasis is requiring an even further reduction of fatalities during the next two years.
8. Other Nationwide NRM Activities. The following additional NRM Activities are recommended for funding to achieve cost efficiencies at the national level. Challenge Partnership Seed Funds; Critical Incident Stress Management (CISM) Program; Natural Resources Management Awards; Operations CoP Gateway; Partnership Advisory Committee; Property Protection Program; RecBEST Coach, Assist and Train Team; Career Assignment Program for Operations Project Managers; Visitor Center Initiative/Corps Story; and Bilingual Support Team.

ACCOMPLISHMENTS IN PRIOR YEARS: The allocation of project operations and maintenance funds to conduct specified nationwide (multiple-project) activities to improve the efficiency and cost effectiveness of the Corps NRM program has been employed, with subcommittee staff knowledge and concurrence, since the early 1990s for activities similar to those identified for FY 2012.

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Recreation One Stop (R1S)

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost for Continuing Program	\$65,000
Appropriation for FY 2011	\$65,000
Allocation Requested for FY 2012	\$65,000
Change of FY 2012 from FY 2011	\$0

AUTHORIZATION: These programs are conducted under the general authority of PL 78-534, the Flood Control Act of 1944 (58 Stat. 887).

JUSTIFICATION: The Recreation One Stop initiative is to enhance customer satisfaction with recreational experiences on public lands. It improves access to recreation-related information generated by the Federal government, streamlines the systems used to manage that information, and increases the sharing of recreation-related information among government and non-government organizations. At the direction of Office of Management and Budget (OMB), Recreation.gov and Volunteer.gov was combined and is now under the umbrella of RecreationOneStop, a priority E-gov initiative on the President’s Management Agenda.

PROPOSED ACTIVITIES FOR FY 2011:

RecreationOneStop (R1S) activities that will be accomplished in FY 2012 with these funds include the following activities:

1. Recreation.gov - \$50,000: an interagency website providing public information about recreation opportunities on federal lands. A customer friendly recreation portal with information for planning visits to Federal recreation sites and making campground reservations. Cost is an annual fee for service payment to DOI to manage, operate and maintain the website.
2. Volunteer.gov - \$15,000: an interagency website coordinating volunteer activities among federal agencies. Provides a user-friendly, web based resource to citizens, offering a single point of access to information about volunteer opportunities nationwide. Volunteer.gov is a partner in the White House's USA FreedomCorps Network, and the site is also linked to the Recreation.gov website in which the Corps participates. Cost is an annual fee for service payment to DOI to manage, operate and maintain the website.

ACCOMPLISHMENTS IN PRIOR YEARS: Recreation.gov provides a customer friendly recreation portal with information for viewing and planning visits on over 4,000 Corps recreation sites and activities, reserve and make payment on line. Volunteer.gov provides a comprehensive clearinghouse of Corps volunteer opportunities. The public can enter geographic information about where they want to get involved and areas of interest to access volunteer opportunities offered by the Corps. Over 60,000 volunteers at Corps projects worked 1.5 million hours, providing \$30.3 million value of service in fiscal year 2009.

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Cultural Resources (NAGPRA/Curation)

SUMMARIZED FINANCIAL DATA:

Estimated Total (FY 1994– 2020) Program cost	\$44,000,000
Appropriation for FY 2011	\$5,500,000
Allocation Requested for FY 2012	\$4,500,000
Increase/(Decrease) in FY 2012 from FY 2011	(\$1,000,000)

AUTHORIZATION: The Native American Graves Protection and Repatriation Act (NAGPRA) enacted on 16 November 1990 contains data gathering, reporting, consultation, repatriation, and permitting provisions that have near-term and long-term implications for Civil Works programs and projects.

JUSTIFICATION: The Native American Graves Protection and Repatriation Act (NAGPRA) addresses the recovery, treatment, and repatriation of Native American and Native Hawaiian cultural items by Federal agencies and museums. As defined by the Act, cultural items are human remains, associated funerary objects, unassociated funerary objects, sacred objects, and objects of cultural patrimony. In FY 1994, the Corps began the process of inventorying human remains and associated funerary objects and completing summaries as mandated by the legislation. In addition, the Corps is responsible for curation of cultural resource materials collected from its water resources development projects. A Mandatory Center of Expertise (MCX), located at the St. Louis District, provides overall management of the Corps NAGPRA programs and serves as an information source and a centralized base for curation compliance and contracting. The MCX will facilitate the assurance of consistent nationwide program implementation and operation. The Corps is responsible for the curation of at least 46,255 cubic feet of artifacts collected from its water resources development projects and at least 3,511 linear feet of associated records. Curation of these materials, the largest volume of all federal agencies responsible for this activity, is required by a number of public laws with implementing guidance in 36 CFR Part 79. Corps collections represent over 80 percent of the total DoD collections. These extensive collections are located in hundreds of curation facilities across the nation. The costs are to accomplish NAGPRA work and to fund MCX curation support to the districts. The MCX, in providing NAGPRA inventories, will assist in establishing the extent of Corps holdings. Associated with efforts to complete NAGPRA and because of the fragile nature of many of the artifact and record collections, the MCX is seeking to accelerate the process of effectively managing the Corps curation efforts. Funding this item will ensure full USACE compliance with NAGPRA legislation and expedite the stabilization, proper storage, and curation support to all Districts.

PROPOSED ACTIVITIES FOR FY 2012: The MCX and Corps Commands will continue the process of inventorying Native American and Native Hawaiian human remains and associated funerary objects and complete summaries of unassociated funerary objects, sacred objects, and objects of cultural patrimony as mandated by the legislation. Information will be made available to interested individuals and groups through notices in the Federal Register. Through MCX provided funding, districts will continue to be engaged in formal consultation with tribes and organizations for the legislated purpose of repatriating cultural objects for which there are legitimate claims. The MCX will continue to fulfill its chartered activities in support of other military services and DoD, lead in the implementation of an agency-wide, long-term plan for the curation of USACE archeological collections (heritage assets). The MCX will also continue to work closely with USACE commands on the implementation of final guidelines and procedures for field collection of archeological materials and the long-term treatment of those collections. In this regard, the MCX will act as a source of expertise for processing and rehabilitation of USACE collections. Finally, the MCX will provide leadership in the development of a training curriculum on the treatment of heritage assets and working in consultation with all stakeholders, take initial steps to make this training available to USACE and other appropriate DoD managers and decision makers. As Corps compliance with NAGPRA Sections 5–7 approaches completion, the MCX will place staffing and other resources in a position to accelerate the rehabilitation and long-term management of

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archeological artifacts collections and associated records that are assessed to be at the greatest risk of deterioration or damage. MCX-CMAC will implement the initial phases of the curation task plan, which involves addressing the rehabilitation needs of USACE's most critical archeological collections.

ACCOMPLISHMENTS IN PRIOR YEARS: A Mandatory Center of Expertise (MCX), located at the St. Louis District, was established to provide overall management of the Corps NAGPRA programs and has served as an information source, a centralized base for curation compliance and contracting. The MCX has facilitated the assurance of consistent nationwide program implementation and operation. The MCX, in providing NAGPRA inventories, has assisted in establishing the extent of Corps holdings. Associated with efforts to complete NAGPRA, the MCX began the process of effectively managing the Corps curation efforts. A phased task plan for curation has been developed and is being implemented on at-risk collections. In addition, the MCX supports and leads the Veteran's Curation Project, whereby disabled veterans received training in proper identification and curation of artifacts, to give them additional qualifications for employment after military service.

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Program Development Technical Support

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost of Continuing Program	\$75,000
Appropriation for FY 2011	\$75,000
Allocation Requested for FY 2012	\$75,000
Change in FY 2010 from FY 2009	\$0

AUTHORIZATION: The Corps of Engineers has continuously worked to improve on methods for gathering, analyzing and submitting project funding requests, to respond to all authorized missions within the Operations and Maintenance program. An automated information system, P2, is the approved software system used for the budget development process and has aligned all Civil Works budget requests within one automated information system.

JUSTIFICATION: P2 provides the program development capability previously provided by the Automated Budget System. The launch of P2 for program development began in FY 2007 and continues in FY 2012. Work under this activity for FY 2012 will ensure that all relevant business processes and rules are incorporated into P2, as well as continuing to refine the data requirements to meet the needs of the budgeting process without creating an undue administrative burden. There will likely be changes needed to adjust P2 to support the O&M program development based on the experiences with the system. This activity will identify needed changes and recommend steps to implement the changes within P2. The technical support for O&M program development will continue to be provided using P2. The deployment of P2 shifted efforts towards development of methods and procedures for setting priorities for all civil works activities and analysis of the entire Civil Works program.

PROPOSED ACTIVITIES FOR FY 2012: Assist O&M program development as supported by P2 for the 2013 and 2014 budget submissions. Identify needed changes and recommend steps to implement changes in P2. Develop program development procedures to support the entire Civil Works program development.

ACCOMPLISHMENTS IN PRIOR YEARS: Maintained and updated the software systems, provided new tools to generate reports, provided training and support to managers. Developed program development tools within P2.

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Shoreline Permit Use Study

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost for Continuing Program	\$250,000
Appropriation for FY 2012	\$250,000
Allocation Requested for FY 2011	\$250,000
Change of FY 2011 from FY 2010	\$0

AUTHORIZATION: This program is conducted under the authority of Engineer Regulation 1130-2-406 Shoreline Management at Civil Works Projects.

JUSTIFICATION: There currently exist approximately 68,000 docks under the Corps shoreline use permit program. The current fee structure to recover the administrative costs has not changed since 1974, while the cost of administrating the program has increased significantly over the past 35 years. The current cost for permitting a floating facility is \$35 for 5 years or \$ 7 per year. These fees are returned to the treasury, as required by law, and not to the administrative unit of the Corps. Study completed in the 2011 indicates that changes are needed to Corps policies and regulations regarding administrative costs associated with shoreline permits and associated real estate licenses. The holders of permits and licenses also experience significant gain in property value that in many cases exceed tens of thousands of dollars. The Government should be fairly compensated for this value for private exclusive use.

PROPOSED ACTIVITIES FOR FY 2012:

The 2012 funding would be used to conduct follow-up work needed to implement a process for regional fee program(s) across the U.S. Applicable Corps policies and regulations will need to be revised; there also may be a significant amount of effort required to review proposed process in the Federal Register and get congressional buy in for proposed changes. The Master Planning Project Delivery Team may also be called upon to provide analysis and input on how regulations and policies for Master Plans must be changed to support proper land use planning for shoreline permits.

ACCOMPLISHMENTS IN PRIOR YEARS:

In FY10 an initial study was begun to review existing fee program(s) and capture the value of existing docks for private exclusive use. Analysis was completed in FY11.

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Fish & Wildlife Operating Fish Hatchery Reimbursement (New)

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost for Continuing Program	\$3,800,000
Appropriation for FY 2011	\$3,800,000
Allocation Requested for FY 2012	\$3,800,000
Change of FY 2012 from FY 2011	\$0

AUTHORIZATION: This program is a line item added by House Report 111-278, dated September 30, 2009.

JUSTIFICATION: The U.S. Fish and Wildlife Service (USFWS) was authorized by Congress in 2008 to seek reimbursement from the Corps of Engineers for O&M costs incurred by National Fish Hatchery System for “de facto” mitigation of certain Corps dam projects which typically predated the National Environmental Policy Act. This resulted in a specific line item authorization in the Corps FY10 budget (see above).

PROPOSED ACTIVITIES FOR FY 2012:

The 2012 funding will be utilized to reimburse USFWS for National Fish Hatchery (NFH) O&M related to “de facto” mitigation of Corps dams identified in a MOU (date to be determined).

ACCOMPLISHMENTS IN PRIOR YEARS:

In FY10 an initial amount of \$4,467,000 was added to the Stewardship budget as a new Remaining Item.

EMERGENCY MANAGEMENT

APPROPRIATION TITLE: Flood Control and Coastal Emergencies (FCCE), FY 2012

SUMMARIZED FINANCIAL DATA:

Annual Appropriation FY 2007	\$ 0
Emergency Supplemental FY2007	\$1,561,000,000
Annual Appropriation FY 2008	\$ 0
Emergency Supplemental FY2008	\$ 226,855,000
FY 2009 CRA Supplemental	\$ 415,600,000
FY 2008 War Supplemental	\$2,926,000,000
Annual Appropriation FY 2009	\$ 0
Emergency Supplemental FY2009	\$ 754,290,000
Annual Appropriation FY 2010	\$ 0
Budget for FY 2011	\$ 30,000,000
Annual Appropriation FY 2011	TBD
Budget for FY 2012	\$ 27,000,000

DISASTER PREPAREDNESS: This activity consists of functions required to ensure that USACE activities are ready to respond disasters and emergencies. It includes coordination and planning with key local, state and federal stakeholders/partners under the Corps' statutory authority, PL 84-99, and in support of the National Response Framework with Federal Emergency Management Agency, Department of Homeland Security. It also allows the Corps to purchase and stockpile critical supplies and support facilities (Emergency Operations Centers). This amount funds partial salaries for mission essential personnel at MSC/Divisions, Districts and support personnel. At this funding level for the annual appropriation, USACE will pursue other funding options to meet the critical readiness planning, training, exercise and equipment requirements to assure we can effectively respond to a broad range of potential major domestic contingencies.

FISCAL YEAR 2012: The Budget funds this program at \$27 million for preparedness and Silver Jacket program activities. The decision to seek these funds is partially an outcome of an analysis using the Program Assessment Rating Tool (PART), which recommended that planning and preparedness funding should be sought as part of the regular budget process, instead of relying on emergency supplemental.

It includes coordination and planning with key local, state and federal stakeholders. It also allows the Corps to purchase and stockpile critical supplies and equipment and support facilities (Emergency Operations Centers).

Major preparedness efforts include emergency management staffing, reviewing and updating response plans based on lessons learned from recent disasters; procuring and prepositioning critical supplies and equipment (i.e., sandbags, pumps) which likely would be otherwise unavailable during the initial response stages; serving as a liaison to state and local governments and other federal agencies; and effective management to ensure workable, coordinated efforts to meet the needs of disaster victims. Of the \$27 million, \$4 million will be used for Corps participation in the Silver Jackets Interagency Teams, including implementation of interim risk reduction measures, as part of the comprehensive levee safety initiatives. The funding identified under All-Natural Hazards Preparedness Activities reflects expanded national and regional planning, training and coordination to support response to all natural disasters that includes disasters under the umbrella of the National Response Framework.

Appropriation Title: Operation and Maintenance – Fiscal Year 2012

National Emergency Preparedness Program (NEPP)

SUMMARIZED FINANCIAL DATA:

President's Budget for FY 2011	6,750,000
Allocation Requested for FY 2012	6,750,000
Change in FY 2012 from FY 2011	0

AUTHORIZATION: Executive Orders 10480 and 12656, which cite several acts including The Stafford Act.

JUSTIFICATION: The budget request will enable the Corps to be prepared to accomplish its continuity of operations and continuity of government responsibilities during national/regional crises. This entails support of civil government through coordinated execution of federal agency plans and the planning/conducting of limited exercises to test readiness to provide such support. Executive Orders 10480 and 12656 and the Department of Homeland Security (DHS), Federal Emergency Management Agency (FEMA) under the Robert T. Stafford Disaster Relief and Emergency Assistance Act, 42 USC 5121 et seq. are the basis of the National Response Framework. The cited executive directives assign significant responsibilities for such preparation (planning, training, research and testing) to the Corps. This includes responsibility for development of comprehensive national level preparedness plans and guidance for response to all regional/national emergencies, whether caused by natural phenomena or acts of man, plans for response(s) to acts of terrorism, and the local preparedness necessary to support Corps continuity of operations. The Corps provides engineering and construction support to state and local governments in response to catastrophic natural/technological disasters. Rapid response to disasters of a regional/national magnitude requires that extensive pre-emergency planning and preparedness activities be conducted to assure the availability of a work force capable of shifting from routine missions to crisis operations and the organizational command and control structure(s) necessary to provide a coordinated and comprehensive response in the critical early stages of a catastrophic disaster.

This program provides the activities necessary to prepare for response to catastrophic natural and technological disasters requiring major Federal support of state and local governments overwhelmed by a disaster event. The preparation requires the development of plans, training of employees, conducting training exercises, including support to FEMA exercises and coordination within DOD and with other Federal agencies and state and local governments. Unlike the Corps Civil Works programs related to individual project planning, development and operations and maintenance, NEPP requires the development of an integrated command planning and response capability. Corps divisions have a key role in the planning, coordination and operational control of multi-district response(s) and the integrated preparedness effort required for accomplishing this response. Preparation also includes the Headquarters sponsored Corps-wide programs necessary to provide the capabilities and operational command and control required by Corps field commands in order to accomplish their NEPP responsibilities, both routinely and in specific emergency response situations. NEPP also provides USACE with the ability to engage and coordinate readiness with other agencies at the National level on programs of Federal primacy or interests.

NEPP is complementary to the Flood Control and Coastal Emergencies (FCCE) appropriation. Although both programs are related to emergency situations, there is a distinct separation of responsibilities. The NEPP provides for the planning, training, and testing activities necessary to develop the capability to meet essential requirements associated with local continuity of operations and response(s) to scenario specific national/regional crises. FCCE, on the other hand, provides preparedness and response related to emergency flood fighting, post-flood repair and restoration of flood and shore protection works damaged or destroyed by floods, hurricanes or wave action and Corps preparedness associated with National Response Plan/Framework mission requirements.

PROPOSED ACTIVITIES FOR FY 2012: The FY 2012 program will provide for continuing the implementation of the National Emergency Preparedness Program. The FY 2012 program will continue the process of catastrophic disaster planning and exercising to enable the Corps to rapidly respond to a broad spectrum of emergencies, with emphasis on natural disaster and terrorists' events that have regional and national implications, such as the Homeland Security Council's National Planning Scenarios. An effort will be made to satisfy increasing demands on the program to support multi-agency (Federal, state, and local government) requests to exercise plans focusing on regional catastrophic natural and man made disasters. Increasingly, Federal, state and local agencies are looking to the Corps in this area. Lessons learned from events such as Senior Leader Seminars, the National Capitol Region workshops, Hurricane Katrina, and the evolving New Madrid earthquake scenario, clearly indicate that the current system does not adequately provide for a response to catastrophic disasters that is timely enough or comprehensive. The Corps has initiated a program that uses the deliberate planning process to develop scenario specific catastrophic disaster plans. This will result in more detailed planning and should provide for a more comprehensive response to national/regional catastrophic disasters to include terrorist attacks. More extensive coordination with Federal, state and local entities will be incorporated into plan development. In this regard, following FEMA's program focus, USACE will continue to play a key role in national security planning such as supporting Homeland Security strategic planning efforts, development of the National Capitol Region Response Plan, catastrophic hurricane and earthquake responses, and other man-made contingencies with national implications. Completing/Updating plans and regional readiness workshops for the National Level Exercise is critical in FY 2012, and is planned by DHS. A key focus is National Level Exercise 2011 (NLE-11), which is based on a New Madrid Seismic Zone catastrophic earthquake (National Planning Scenario 9, Natural Disaster – Major Earthquake), is the testing and validation of the Operations Plan (OPLAN) 2010-70 USACE Response to a Catastrophic Earthquake in the New Madrid Seismic Zone (NMSZ). As a primary support to DHS/FEMA, the Corps has major responsibilities including restoring navigation to the Mississippi and Ohio River systems, providing temporary power solutions, water/wastewater infrastructure restoration and leading debris removal operations. The purpose of NLE-11, which consist of a series of building block exercises, workshops, seminars, functional and tabletop exercises is to evaluate catastrophic event preparedness with a focus on stabilizing the impacted zone within 72 hours in line with DHS/FEMA's Whole of Community concept as well as develop New Madrid recovery solutions in the context of the National Disaster Recovery Framework, especially the Infrastructure Systems Recovery Support Function in which the Corps has a leading role. Additional efforts will focus on continuing to strengthen COOP readiness and conducting exercises, aligned with the highest national priorities, within the scope of available funding during FY 2012, improved catastrophic disaster response planning and emergency management technical assistance program for technology support, development and transfer of knowledge.

ACCOMPLISHMENTS IN PRIOR YEARS: The Corps continued to emphasize a program that uses the deliberate planning process to develop scenario specific catastrophic disaster plans. Extensive coordination with Federal, state and local entities has been incorporated into plan development. In this regard, following FEMA's program focus, USACE has continued to play a key role in national security planning such as supporting Homeland Security strategic planning efforts, development of the National Capitol Region Response Plan and other plans such as the New Madrid Earthquake, the New Orleans Hurricane, the Los Angeles Earthquake and other contingencies with national implications, such as the fifteen national planning scenarios developed by the Homeland Security Council. Additional efforts focus on continuing to strengthen COOP readiness. Exercises, involving federal, state and local officials, have contributed to a more timely and effective execution of Corps responsibilities during disasters that have national impacts. Urban Search and Rescue (US&R) Training was conducted to recertify cadre members to advanced Structures Specialists, to provide US&R-level weapons of mass destruction training to meet FEMA requirements, to prepare and conduct a new recruit Structures Specialist training course and to purchase associated equipment for the support teams. Seminars, workshops, and exercises, such as mentioned above, have strengthened partnerships and promoted mutual understanding of the roles, responsibilities and interests of USACE, FEMA, other Federal agencies, and State and local governments involved in natural disasters and terrorists' responses. They have provided an excellent opportunity to examine contingency plans, capabilities, and communications at federal, state and local levels. Also, region-

Appropriation Title: Operation and Maintenance – Fiscal Year 2012

specific issues have been identified and addressed at exercises. National level interagency coordination continued through participation in exercises.

Appropriation Title: Operation and Maintenance, General – Fiscal Year 2012

Facility Protection - CISP

SUMMARIZED FINANCIAL DATA:

President's Budget for FY 2011	\$ 6,500,000
Allocation Requested for FY 2012	\$ 6,500,000
Change in FY 2012 from FY 2011	(\$0)

AUTHORIZATION: The Energy and Water Development Appropriations Act, 2002 (PL 107-66), Consolidated Appropriations Resolution 2003 (PL 108-7), Energy and Water Development Appropriations Act 2004 (PL 108-137), Consolidated Appropriations Resolution 2005 (PL 108-447), Energy and Water Development Appropriations Act 2006 (PL 109-103), and the President's Budget proposes similar authorization for FY 2007.

JUSTIFICATION: The Facility Protection – CISP supports the implementation of the U.S. Army Corps of Engineers (USACE) Critical Infrastructure Protection & Resilience (CIPR) Program, whose goal is to achieve a more secure and more resilient civil works critical infrastructure by enhancing its protection in order to prevent, deter, or mitigate the effects of manmade incidents and improve preparedness, response, and rapid recovery in the event of an attack, natural disaster, and other emergencies. The CIPR program supports National policy drivers under the National Infrastructure Protection Plan and the National Response Framework, and it is directly aligned with the Dams Sector-Specific Plan. The objectives of the CIPR program include assessing and prioritizing Corps civil works critical infrastructure by implementing a portfolio-wide risk assessment framework. The CIPR program focus is not necessarily facility specific, as it addresses portfolio-wide resilience-enhancing efforts. This holistic, integrated framework is facilitated through the implementation of system-wide and asset-specific integrated actions for enhanced protection and resilience at USACE critical infrastructure facilities. The goals of the CIPR program are to develop, implement and sustain an integrated risk-based assessment & management framework for Corps civil works critical infrastructure; to assess and prioritize Corps civil works critical infrastructure by developing and implementing a portfolio-wide risk assessment approach; and, to improve the risk profile of Corps civil works critical infrastructure. These goals will be attained by developing solutions, methodologies, and tools to address key vulnerabilities to manmade incidents, implementing effective programs to minimize consequences, improving the response and recovery capabilities using an all-hazards approach, and prioritizing life-cycle investments.

PROPOSED ACTIVITIES FOR FY 2012:

- Conduct 2012 implementation of Consequence-Based Top Screening (CTS) methodology for systematic screening and consistent prioritization of high-consequence (critical) dams and navigation locks.
- Implement regional resilience efforts supporting the development of integrated regional strategies to improve disaster preparedness and recovery of critical infrastructure and surrounding region.
- Develop consequence analysis studies and system-based interdependency assessments at Corps critical dams projects.
- Develop advanced modeling and simulation studies for critical infrastructure.
- Develop and implement a security conditional risk assessment methodology (Common Risk Model for Dams) for portfolio prioritization of Corps critical infrastructure and risk mitigation to manmade threats.

Appropriation Title: Operation and Maintenance, General – Fiscal Year 2012

ACCOMPLISHMENTS IN FY 2011:

- Developed a benchmark pilot for implementing a conditional risk assessment methodology (Common Risk Model for Dams) at a selected number of Corps critical projects.
- Conducted the 2010 Dams Sector Exercise Series – Green River Valley (DSES-10) supporting the development of an integrated regional strategy to improve disaster preparedness and resilience in collaboration with Green River Valley public/private stakeholders.
- Implemented a Consequence-Based Top Screening (CTS) methodology for dams at USACE critical projects. The CTS supports identification of those facilities that could reach the most severe consequences at the national level (critical impacts to the Nation's public health and safety, economic, and/or national security), while it also and prioritization efforts at the portfolio level.
- Developed targeted summaries (Comprehensive Facility Reports) of key information on selected dams and locks of regional or national significance to facilitate quick regional impact assessment reporting for all hazards conditions.
- Collaborated in pilot efforts aimed evaluating simplified blast damage estimation tools as part of overall risk assessment process at a selected number of dams in collaboration with other Dams Sector partners.
- Continued improvement of predictive damage assessment tools of water-backed embankment dams from explosive loading using data from full-scale and reduce-scale experiments.
- Conducted small- and large-scale experiments of blast mitigation alternatives on embankment dams to evaluate their response under crest- and water-side attack scenarios.
- Continued interagency collaboration with the DHS Dams Sector-Specific Agency and other Dams Sector stakeholders.
- Supported additional requirements associated with surge in security measures at USACE critical projects due to increased threat levels.
- Coordinated with DHS the implementation of the Enhanced Critical Infrastructure Protection program at USACE projects.

WATER SUPPLY

Portfolio Assessment for Reallocations – Assessment of Data FY 2012

<u>SUMMARIZED FINANCIAL DATA:</u>	PRESINENTS BUDGET	CONFERENCE	PASSBACK
Cost of Continuing Program (for 2-years)	\$571,000	\$557,000	\$571,000
Appropriation for FY 2011	571,000	543,000	571,000
Allocation Requested for FY 2012	571,000		
Decrease of FY 2012 from FY 2011	0		

AUTHORIZATION: Specific project authorizations, Section 216 of the River and Harbor and Flood Control Act of 1970.

JUSTIFICATION: The National Portfolio Assessment for Reallocations was a two year appraisal, initiated in FY 2008, to develop a portfolio of existing Corps of Engineer multipurpose projects to be used as a screening tool to identify the best candidates for opportunities for operational changes and/or reallocation opportunities. During the development of the survey for this assessment, the Corps was considering two other national surveys, one on the water management aspects of Corps reservoir projects and another on sedimentation management concerns. Recognizing that gains could be made from both monetary and district responsive aspects, these three efforts were combined into one. This two year survey and assessment has is now nearing completion on:

- (1) The development of a portfolio of Corps projects that identified the best candidates for opportunities for operational changes and/or reallocation opportunities to ensure existing Corps reservoirs contribute to enhance economic and ecosystem values as water demands evolve and a better understanding of global warming issues is gained.,
- (2) A paper on alternative funding arrangements for water supply reallocation studies,
- (3) A database to examine the status of Corps water management from local, regional, and national perspectives,
- (4) An engineering and scientific foundation for a national adaptive management program,
- (5) A baseline data set for investigating the evolution of operational water management policies,
- (6) An assessment of sediment infilling, its impacts to operating purposes and management practices, and
- (7) A database for sediment data collection efforts.

The Corps of Engineers had previously launched a Sustainable Rivers Project in 2002. The purposes of this effort are to assess ecosystem needs downstream of Corps projects and to evaluate water management opportunities for potential operational changes and/or reallocations to enhance ecosystem values while maintaining or improving primary project purposes (e.g. flood risk reduction, water supply, and hydropower). In addition to the development of new modeling tools to support these assessments, this effort resulted in the initiation of pilot projects in eight river basins. These pilot projects seek to define ecological needs, model potential operational changes, and implement and monitor ecological outcomes resulting from the changes to the project’s operation. These site-based efforts complement the national portfolio assessment by evaluating water management aspects of reservoir projects and demonstrating an adaptive management approach that can be used to ensure Corps projects maintain their existing purposes while contributing to and/or enhancing economic and ecosystem values as water demands evolve.

Portfolio Assessment for Reallocations – Assessment of Data FY 2012

A report entitled “A Strategy for Federal Science and Technology to support Availability and Quality in the United States” was published by the Executive Office of the President of the United States in September 2007. This report was a product of the Subcommittee on Water Availability and Quality of the National Science and Technology Council’s Committee on Environment and Natural Resources. This committee was charged with: (1) identifying science and technology needs to address the growing issues related to fresh water supplies, (2) developing a coordinated, multi-year plan to improve research to understand the process that control water availability and quality, and (3) enhancing the collection and availability of the data needed to ensure an adequate water supply for the Nation’s future. As a result of the information obtained from the completed two year survey and from the initial success of the Sustainable Rivers Project pilot sites, it is clear that it would be desirable to continue the assessment and pilot demonstration efforts to address the national needs as identified in 2007 report from the Executive Office of the President of the United States.

This assessment of data program also is supported by Public Law 111-11, the Omnibus Land Management Act of 2009. Section 9508 of the law is titled, “National Water Availability and Use Assessment Program.” While the direct responsibility for this is with the Dept. Of Interior, consultation with the Corps is provided for. The purposes of this section 9508 are to provide a detailed assessment of:

- The current available of water resources in the U.S.
- Significant trends affecting water availability, including each documented or projected impact due to climate change
- The withdrawal and use of surface water and ground water by various sectors
- Significant trends relating to each water use sector including significant changes in water use due to the development of new energy supplies
- Significant water use conflicts or shortages that have occurred or are occurring
- Each factor that has caused or is causing a conflict or shortage

PROPOSED ACTIVITIES FOR FY 2012: INITIAL FUNDING. Funding in the amount of \$571,000 will continue the two-increment effort initiated in fiscal year 2010.

1) **Assessment of Data.** Funding in the amount of \$286,000 will be used to continue the efforts initiated in fiscal year 2010 by developing in more detail the development of a national program on water management through a report on the Corps Reservoir Management Function. Such efforts will include:

- Incorporate information from the Portfolio, Water Management and Sediment surveys
- Incorporate information from drought contingency plans
- Incorporate data from climate change studies
- Incorporate data from the Draft Water Quality Data Management Implementation Plan (WQDMIP) and the Reservoir-Sedimentation Database (RESSED)
- Develop a project by project projection of water availability and sustainability over the next 10, 20 and 50 year periods
- Roll the developed data up into basin and regional projections
- Develop a program to keep the data current

Portfolio Assessment for Reallocations – Assessment of Data FY 2012

2) **Sustainable Rivers.** Funding in the amount of \$285,000 will be used to advance an ongoing effort to improve practices for evaluating evolving water demands and will be used to continue the efforts initiated in fiscal year 2010 to:

- Support the definition of environmental flow needs
- Model application
- Implementation of operational changes to meet environmental flow needs
- Monitoring and initiation of a process to revise water control plans at selected Sustainable Rivers Project pilot sites.

Experiences at existing sites will be used to inform other efforts to modify project operations and refine the practices for evaluating evolving water demands.

PROPOSED ACTIVITIES FOR FY 2012: RECOMMENDED.

1) **Assessment of Data.** No change from the Initial Funding Level

2) **Sustainable Rivers.** No change from the Initial Funding Level

ACTIVITIES IN FY 2011: The fiscal year 2011 funding of \$571,000 was a two-increment effort.

1) **Assessment of Data.** Funding in the amount of \$300,000 was used to continue to analyze the data collected in the Portfolio, Water Management and Sediment surveys performed in fiscal years 2008 and 2009 and complete the follow on reports. Efforts were also initiated to develop a Corps Reservoir Management report and provide additional data on sedimentation, water quality and climate change activities at Corps reservoir projects2) **Sustainable Rivers.** Funding in the amount of \$271,000 was used to continue the efforts of modeling select Corps Sustainable Rivers Project pilot sites with the objective of identifying the need to implement operational changes to meet environmental flow needs.

EXPENSES

Justification of Estimates for Civil Functions Activities
Department of the Army, Corps of Engineers
Fiscal Year 2012
(\$000)

APPROPRIATION TITLE: Expenses

	<u>FY 2011</u> <u>Appropriation</u>	<u>FY 2012</u> <u>Request</u>	<u>Change</u> <u>FY 2011-2012</u>
1. Headquarters & Major Subordinate Commands (MSC)			
a. Headquarters, U.S. Army Corps of Engineers			
(1) Base level Operating Expenses	\$ 81,390	\$ 80,276	- \$ 1,114
(a) FY12 Labor (373 FTEs @ \$167K/FTE)	(61,290)	(62,290)	(1,000)
(b) FY12 Non-labor	(20,100)	(17,986)	- (2,114)
(2) Campaign Account	<u>12,400</u>	<u>13,514</u>	<u>\$ 1,114</u>
SUB-TOTAL	\$ 93,790	\$ 93,790	\$ 0
b. Major Subordinate Commands			
(1) Base level Operating Expenses	\$ 72,877	\$ 72,877	\$ 0
(a) FY12 Labor (405 FTEs @ \$148K/FTE)	(59,822)	(59,822)	\$ 0
(b) FY12 Non-labor	(9,663)	(9,663)	\$ 0
2. Field Operating Activities (FOA)			
a. Humphreys Engineer Center Support Activity (HECSA)	\$ 6,400	\$ 6,405	\$ 0
b. Institute for Water Resources (IWR)	4,953	4,930	0
c. U.S. Army Engineer Research & Development Center (ERDC)	240	244	0
d. USACE Finance Center (UFC)	950	950	0
e. USACE Logistics Activity	3,620	3,627	0
f. Army Corps of Engineers – Information Technology (ACE-IT)	<u>2,170</u>	<u>2,177</u>	<u>0</u>
SUB-TOTAL	\$18,333	\$ 18,333	\$ 0
TOTAL:	\$185,000	\$185,000	\$ 0

The Expenses appropriation funds the command and control, policy and guidance, program management, national and regional coordination, and quality assurance of the civil works program. These activities are carried out by the Corps headquarters and eight division offices. The account also funds work conducted in six Field Operating Activities (FOA).

The FY 2012 Budget for the Expenses Program is \$185M which is at the same level as FY2010 and FY2011.

3. General Administration

The FY 2012 budget provides 895 Full Time Equivalent (FTEs) for the U.S. Army Corps of Engineers. FTEs are allocated across the Headquarters, (8) Major Subordinate Commands (MSC), and (6) Field Operating Activities (FOA). Aside from labor, Must Fund requirements include items such as: military pay (uniformed military officers supporting the civil mission), GSA rentals payments, communication (landline telephones); centralized finance, logistics, personnel support; enterprise information technology baseline support and fee for service automated information systems. General administration comprises command and control, policy and guidance formulation, program management in developing, defending and executing all major USACE programs; national and regional coordination level coordination with elements of the Administration, Congress and other agencies and national stakeholders; and quality assurance to ensure that the Civil Works Program is executed in accordance with law, policy and regulation. Execution of the Corps' mission is decentralized across 38 districts, eight (8) MSCs, six field operating activities (FOA), including the Engineering Research and Development Center (ERDC) comprising seven (7) laboratories. The budget will enable the Corps to accomplish its workload, particularly the program and project management, national and regional coordination, and quality assurance functions.

Executive Order 13514, signed October 2009, requires Federal agencies to set a 2020 Greenhouse gas (GHG) emissions reduction target; The Corps is establishing USACE-wide policies, plans, processes, and tools, required to support annual reporting requirements related to GHG.

As an organization, the Corps has to transform and evolve to meet changing needs of the nation, and its Armed Forces. As the needs of society and the workforce have changed, Civil Works primary mission of development and management of water resources have changed, to include protection and restoration of water resources and the ecosystems they support. The complexity of water resources development and management requires closer partnerships and greater collaboration. To accomplish the Corps and Civil Works mission, work plans will be developed in accordance with the following priorities:

- Improving program justification statements and program documentation
- Improving budgeting and financial performance
- Increasing training to retain, maintain and improve technical competence
- Becoming a more efficient and effective organization through technology (E-government)
- Strengthening dam safety and levee safety and risk management
- Strengthening business program management for the navigation, environmental restoration and hydropower programs

a. Headquarters, U.S. Army Corps of Engineers

- (1) Base Level Operating Expenses
- (2) Campaign Account

	<u>FY 2012 Request</u>
	\$ 80,276
	<u>13,514</u>
	\$ 93,790

(1) The Headquarters, U.S. Army Corps of Engineers manages and supervises the execution of civil works programs, including program development, design, planning, project management, engineering, construction, operations and maintenance of Corps projects, regulatory activities, real estate functions and research and development functions. Designation of essential functions and delineation of processes to execute these functions are retained at HQ to ensure consistent customer support across the Corps. The headquarters is also responsible for activities of the Nation's water and related environmental resources; developing and managing programs; planning, designing, constructing, and operating projects for commercial navigation, flood and storm damage reduction, aquatic ecosystem restoration, and related activities, such as hydropower generation. The headquarters assists the field command by providing command and control, policy formulation, national programs management, national coordination, quality assurance, preparation of the annual budget and legislative submission, national and international interface, resource distribution and oversight of execution, and performance measurement. The Headquarters is also responsible to

improve the performance of management functions and to increase the level of effort on management initiatives. In FY2012, Headquarters, will address planned initiatives as follows:

- Improving planning capabilities through the development and update of planning guidance and training,
- Expanding stakeholder coordination at the regional and national levels,
- Increasing training to retain, maintain and improve technical competence, and
- Managing business process transformation.

The FY2012 amount requested for the headquarters consists of two components: the base-level operating expenses of \$80,276 and the Civil Works Campaign Account amounting to \$13,514. The headquarters has an active program to manage its personnel resources. The Headquarters is responsible for reviewing positions to determine need and priority, consider need for new labor capability and determine which existing labor capability can be “traded out” for needed additional and/or new labor capability. Positions have been prioritized and, as opportunities arise, least important positions are eliminated and new positions are created to respond to evolving challenges, such as those in Planning and Policy Division, the Regulatory Program, and Programs Integration Division. In response to a recent GAO audit, \$1M is included to increase headquarters full-time permanent staff (FPS) Through this prioritization process, headquarters is planning to strengthen its future capabilities in contract management, internal review, program management for development, defense and execution of the Civil Works program, and the execution of project cooperation agreements. Under Government Performance and Results Act (GPRA), each agency is required to establish a Strategic Plan. The Corps’ implementation of its Strategic Plan is called the Campaign Plan. The Corps Campaign Plan describes the vision and goals for the entire organization. In FY 2010, Campaign Account investments were aligned with the Corps’ Campaign Plan goals. The desired outcomes of the Campaign Plan are described by four goals. These goals are: Goal 1: Deliver USACE support to combat, stability, and disaster operations through forward deployed and reach-back capabilities; Goal 2: Deliver enduring and essential water resource solutions through collaboration with partners and stakeholders; Goal 3: Deliver innovative, resilient, sustainable solutions to the armed forces and the Nation, and Goal 4: Build and cultivate a competent, disciplined, and resilient team equipped to deliver high quality solutions. These goals provide direction toward the accomplishment of the Civil Works Program Strategic Goals. The Civil Works mission is accomplished through four strategic goals: (1) enable and assist in the development of safe and resilient communities and infrastructure; (2) promote sustainable water resources, marine transportation systems and healthy aquatic ecosystems; (3) implement effective, reliable, and adaptive life-cycle project performance and (4) build and sustain a competent team. Funds provided support the management of the Civil Works program as described above, through eight business areas representing: navigation, flood and coastal storm damage reduction, environment, hydropower, regulatory, recreation, emergency management, and storage for water supply.

(2) The Campaign Account provides for initiatives essential to supporting the Civil Works mission deemed appropriate for direct-funding from the Expenses account and benefits HQ, MSCs and FOAs. Typically, many of the Campaign Accounts provide funding for non-headquarters staff that are normally project funded. The funding level for Campaign Account initiatives are tentatively set at the levels below:

➤ **Campaign Account Goal 1 totals \$450K for two (2) programs:**

1) Concept Development, Experimental, and Exercise Program for Contingency Operations \$200. In support of USACE Goal 1, this program will direct USACE and its subordinate elements in the planning, preparation, and execution of concept development, analysis and experimentation that in turn support Army, FEMA, national and international missions. In the context of ongoing strategic commitments while at the same time transforming to meet the future challenges, USACE will anticipate requirements through the use of capability experiments to best inform and shape the directions of USACE for both the military environment as well as civil support to national and international missions. A continuous cycle of innovation, experimentation, testing, exercises, and updates will enable USACE to improve its capabilities to provide support to the Joint Force and Nation now and in the future.

2) Civil Military Emergency Preparedness (CMEP) Program, \$250K. Strategic development of the CMEP program outside the Warsaw Initiative Funds (WIF) footprint and development of activities with the Army Service Component Commands (ASCCs) and Global Combatant Commands with projects that meet OSD and Theater Security priorities for effective shaping stability operations.

➤ **Campaign Account Goal 2 investments total \$6.479M for fourteen (15) programs;**

1) The Chief of Engineers Environmental Advisory Board (EAB) \$70K provides the Chief of Engineers with outside, expert and independent advice on environmental issues facing the Corps.

2) The Corps' Dam Safety Program \$250K provides for dam safety professional workshop and conference by Corps team (district) members with participation and emphasis on technical competency. Supports representatives on national and international committees by providing written technical data.

3) The Civil Works Guidance Maintenance Program (GUMP) \$3.139M develops and updates technical guidance, design and construction standards, and criteria documents critical to our Civil Works mission. The average age of these documents is 12 years. Funding pays for labor of Corps subject matter experts. In response to a recent GAO audit, \$1M will be used on updating the Corps' technical guidance and strengthening its planning expertise.

4) Capitol Hill assignments/Civil Works professional development \$250K provides for detail assignments of Corps members to the House and/or Senate, or both sub-committees responsible for the oversight of the authorization and appropriation process of the Civil Works program. Detailees participate in the development of policy legislation, Water Resource Development Acts, and annual appropriations. The Developmental assignment is located in Civil Works.

5) Water Resources Development Act of 2007 \$500K provides for the updating of the Principals and Guidelines which include associated procedures and complete implementation guidance for provisions as identified in WRDA 07 and as directed by congress.

6) Budget Formulation Execution Line of Business (BLELoB) \$105K. BFELoB is a Federal Government wide initiative focused on building the "Budget of the Future". The Department of Education manages the BFELoB.

7) The Unified national program for floodplain management \$20K, funds the USACE portion of a multi-Federal agency effort that supports the Association of State Floodplain Managers in the development and management of a certification program for floodplain managers. It also funds USACE participation in two (2) working meetings of the Certification Board of Regents, as well as specific activities identified by the Regents.

8) Interagency Performance Evaluation Team/Hurricane Protection Decision Chronology (IPET/HPDC) Lessons Learned \$1.2M. This is a National initiative to address critical lessons learned from Hurricane Katrina. This initiative (formerly known as Action for Change) will continue to be executed with national teams as part of the USACE Campaign Plan. Key elements include systems based approaches, risk-informed decision making and risk communication. It will include development of the Datum Engineer Manual. Will develop and deliver joint NOAA/USACE Vertical Control/Datum Certificate training program. Will develop an initial framework that would include factors influencing incremental changes which support a comprehensive evaluation capability, for incremental changes to USACE projects on a system and/or watershed basis. Perform an evaluation of Vertical Datums on all Corps projects. Develop Strategic Plan for Water Management Adaptation to Climate Change.

9) Recreation Program/Business Line Manager – (Volunteer Gov) \$65K. Funding covers costs for maintenance of the Recreation Information Data Base (RIDB) in an operations and maintenance "steady state" including software maintenance renewals, IT security reviews and hosting services as well as project management support of this interagency initiative as managed by U.S. Forest Service. The Recreation One-Stop is an E-Gov initiative and has Corp-wide investment implications in scope. It enhances customer satisfaction with recreational experiences on Corps public lands. Requirement provides payment IAW Interagency Agreement # 01-IA-11132424-175 between the National Recreation Reservation Service as managed by US Forest Service and DOD. This annual funding supports the Corps responsibility of providing funds for the management and operations costs of the Recreation One-Stop initiative.

10) Geospacial Line of Business - \$114K.

11) Facilitation Services \$66K. To conduct a 360 degree (supervisors, peers, employees, customers) assessment of senior civilian and military leaders in the Civil Works Directorate

12) Management of the Planner's Improvement Course \$100K, provides for the Corps to update lesson plans and course objectives in keeping the Planners Improvement course current while using the latest technology and community of practice.

13) Planning Community of Practice Conference \$60K. Every two years the CW Planning Community of Practice (CoP) holds its national conference to discuss planning issues and innovations related to the Corps' mission areas, with special emphasis on how the Planning CoP supports the strategic direction of

the Corps. The Planning CoP works directly toward the Corps' accomplishment of Campaign Plan Goal 2L Engineering Sustainable Water Resources and the biennial PCoP Conference is a key part of the Planning community's efforts to fulfill Goal 4: recruit and retain strong teams.

14) Planning Community of Practice (PCoP) Support to Learning Organization/Knowledge Management \$120K supports significant initiatives of the Planning CoP. This includes the Corps-wide planning community such as corporate model certification and planners tool box; project risk management and Actions for Change; professional development seminars and conferences; support for long-term training opportunities within HQ Planning and Policy Division and development of planner's resource website and lessons learned.

15) Support to States/Interagency National Water Resources Priorities \$420K. This project covers all goals under the Civil Works Strategic Plan, which are both mandated under the Command Consolidated Guidance (CCG). This initiative began in 2006 with a preliminary framework allowing for the CW Directorate to assess where the states are, in regards to planning and management of their water resources, what their visions are for their water future, and how we best help them to implement integrated water resources management. This effort includes the research of water plans, analysis of results, contract for hotels to host regional conferences, interview with Federal agencies, preparation of a POC database, facilitation services at regional conferences, preparation of briefings for the leadership, briefing at national and selected conferences where water resources issues are discussed; development of trends reports, proceeding reports, presentations at the regional conferences, article for media coverage, etc...

➤ **Campaign Account Goal 3 investments total \$1.888M for five (5) programs:**

1) Real Estate Transformation \$90K. General Order #3 details the Chief of Engineers Army Staff (ARSTAF) role, which includes responsibility for policy, procedures, and providing technical advice as it relates to real estate. Army Regulation 10-87 further details that USACE performs real property accountability and assets management functions under ASA(CW) for civil works assets and supports Army Chief of Staff for Installation Management (ACSIM) regarding military real property assets.

2) Sustainability \$268K. Support the development of USACE-wide policies, plans, processes, and tools needed to comply with EO 13514 and to support our customers' compliance with EO 13514. Policies, plans, processes and tools are required to support annual reporting requirements and data analysis and validation in order to properly establish mechanisms to meet EO 13514 goals related to greenhouse gasses (GHG), energy/fuel efficiency, renewable energy, green buildings, planning, water efficiency, pollution prevention, sustainable acquisition, electronic stewardship and data centers, and USACE innovation. Sustainability has increased visibility due to DoD and DA's interest in USACE support DoD's GHG targets and separate agency-level reporting requirement to OMB and CEQ resulting from the ASA(CW)'s personal involvement.

3) Critical Infrastructure Protection Resilience Program \$200K. goal implementation which will center on coordination of portfolio-risk management prioritization efforts under the Civil Works Critical Infrastructure Protection and Resilience (CIPR) and Dam & Levee Safety Programs to support life-cycle investments and their integration with other USACE Campaign Goal objectives (i.e., asset management). The overarching goal of this effort is to improve coordination within USACE Civil Works programs to enhance civil Works critical infrastructure resilience in an all-hazard, systems-based context, in full alignment with National policy requirements and Corps' Civil Works Program strategic goals.

4) Deliver Reliable Infrastructure using Risk Informed Asset Management Strategy \$1.1M. Requirement of EO13327 "Federal Real Property Asset Management. Increased reliability will be achieved by developing a strategy, which includes an integrated national plan for assessing the infrastructure and an investment strategy for operation, maintenance, and enhancements to improve reliability, minimize risk, and meet projected infrastructure demands.

5) Innovation (Knowledge Management/Technology Transfer), \$230K. This requirement is to support the USACE Campaign Plan Objective to incorporate and increase the use of innovations and innovative tools in the organization that result in improved efficiencies and effectiveness of project execution or development of the workforce. Objective has three primary strategies, formulated to provide three clear but supporting lines of operation: innovation, knowledge management, and technology transfer. This includes the identification and implementation of industry-based best practices along with innovative technologies coming out of the USACE Research and Development (R&D) Program. The end state for "Greatness" is "an enlightened, innovative and creative USACE workforce implementing higher quality, more effective and efficient engineering solutions for the nation."

➤ **Campaign Account Goal 4 investments total \$4.697M for fifteen (15) programs:**

1) Competitive professional development (LTT) 200K supports tuition, travel and per diem for twelve (12) civil works funded employees to obtain academic degree training across the command. Without this centralized funding for civil works funded employees, there will be an inequity in training opportunities between civil and military funded employees.

2) Corps Map (enterprise GIS (eGIS)) and Corps project notebook database (CPN) \$250K supports national viewing and database component for many AIS systems as part of the USACE enterprise geospatial metadata repository as required by EO 12906.

3) Organizational memberships \$321.3K provides funding for USACE participating in the activities of professional and government organizations. This supports long-standing relationships and partnering efforts of USACE. This program is designed to corporately learn from others and contribute to the improvement of the Engineering/Construction/Operations (ECO) industry of the nation. Participation in these organizations allows interaction with public sector and private companies, enabling recruitment, technical transfer and knowledge sharing, development of relationships and trust, situational awareness, sharing research and best practices, educational and developmental opportunities and benchmarking.

4) Career Program 18 leadership development, \$300K provides civilian professional development as part of the Army's Career Program 18, Engineers & Scientist (Construction) This program expands the civilian professional's knowledge and abilities to prepare them for future advancement and leaders in the Army organization. The developmental assignments and coursework taken by mid-level career candidates, broaden their base of knowledge and expertise in different functional and geographic areas. Completion of the CP-18 LDP prepares the candidates for assuming positions of increasing responsibility with the Army engineering community

5) Chief of Engineers design and environmental and professional awards program \$52.5K was developed to recognize design excellence in USACE work. It also provides funding to support the Federal Agency Interview Program booth at professional conventions.

6) Science and Engineering Technology (SET) \$100K a USACE initiative to establish common Science and Engineering (S&E) practices and tools across Regional Business Centers that focuses on computer-based technologies, identification and coordination of computer platforms to support technical missions, and support of integration of Building Information Technology in USACE.

7) Competent, disciplined and resilient teams under the National Technical Competency Team (NTCT) \$20K will continue the work of the NTCT to assess current technical status, identify future requirements, tools and methods for managing technical competencies, and conduct a pilot test of results in one or more region with the goal of deploying the program across USACE.

8) Project management business process (PMBP) assessment \$79.135K. Over the past several years, Corps has invested in standardizing our business processes Corps-wide, which in effect will also centralize and consolidate our legacy Automated Information Systems (AIS) and the management of data from an enterprise perspective. The FY 2010 investment will allow the Corps to implement best practices/innovations, making use of knowledge management tools and improving the Corps' Corporate business process manual. Funds would be used for aligning our business processes to such initiatives such as the centralized Quality Management System (QMS), the Enterprise Data Warehouse (EDW), and refinements/clarifications/implementation guidance to the overarching Business Process Regulation, ER 5-11-1.

9) Technical Competency \$204K. TEN is the Community of Practice (CoP) tool for the Engineering and Construction (E&C) community. E&C is the largest USACE Community of Practice (CoP), including about 1/3 of the USACE workforce. TEN provides specific functionality needed by the E&C CoP to manage expertise and share information across USACE & DoD. E&C requires support from ERDC-ITL & ACE-IT to maintain TEN functionality, and to transition functionality to corporate tools.

10) Value Engineering (VE) Initiatives \$40K. Funds will be used for mission critical adjustments of the VE CoP update to VE regulation/CoP guidance and VE Officer training as required by OMB Cir A11 & PL 104-106. Constantly changing needs of program require immediate update of the regulation

11) IM/IT services management and governance \$2.5M provides civil funds to match military funding for USACE internal governance of e-government initiatives which includes information assurance, privacy, quality management, test and evaluation, architecture, infrastructure, records management, and portfolio management. Business cases for the major IT investments are located at <http://www.usace.army.mil/CECI/Pages/OMB300.aspx>.

12) Organizational Consultant to evaluate Corps' Communication function \$105K. Fund to hire an organizational consultant to thoroughly evaluate the Corps' communication function and develop recommendations for improvement. We require an extensive analysis to develop solutions to significantly

communicate problems identified by USACE leaders in a recent survey. These problem areas, if left unaddressed, will impede our ability to communicate strategically and transparently, build credibility and trust, and ultimately can negatively impact mission execution.

13) Quality Management PM \$140.6K. This is a mission critical requirement. Funding is split between contract support for IT (program support for QMS development) and purchases of standards. The QMS is a methodology and a platform to control processes across the Corps. It supports the CG direction and Campaign Plan 4C goal of developing a QMS and standardizing business practices. This will be a corporate tool to support all offices in capturing business practices. It supports the Corps in working virtually between offices and across regions. The documentation and ease of availability of these processes will expedite response time and efficiencies in deployments and emergencies in support of the Army and civil requirements. It supports the ability to capture knowledge and business practices of current workforce for future staff, establishing a platform to support and control LSS projects, and capturing best business practices. The ISO standard is a licensing agreement for use by all the Corps.

14) Corps Wide Efficiency Initiatives \$360K. To conduct business process reengineering activities for achieving corps-wide efficiency initiatives, post competition accountability on completed competitions, cost tracking and performance evaluation and reporting to congress and OMB.

15) USACE Recruitment Program \$24.395K. Funding will be used to develop marketing/branding for use at national recruitment events. Development of a USACE Employer brand will enable the Corps to influence public opinion regarding USACE employment and establish a competitive advantage over other federal agencies and private sector for top talent. Establishment of an employer brand will better position USACE to achieve greater results in recruiting top quality hires. Further, funding will be used to develop a USACE wide automated system (includes software and equipment) for applicants to view USACE job opportunities, occupational information, request consideration for positions, and allow us to capture key information (e.g., contact info and employment preferences) from top quality candidates we engage at national recruitment events.

The FY 2012 Headquarters staffing level is 373 civilian FTE. HQ reimburses Department of Army for 34 Expenses funded uniformed military spaces. The Headquarters breakout of operational costs by major category is shown below.

\$ 62,290	Civilian Personnel Compensation and Benefits
\$ 17,986	Non-labor Costs
<u>13,514</u>	Campaign Account
\$ 93,790	

b. Major Subordinate Commands (MSC)
Base Level Operating Expenses

FY 2012 Request
\$ 72,877

The eight division offices (MSCs) of the Civil Works Program, provide quality assurance for and supervise work of the 38 district offices that have civil works responsibilities. The MSCs have the following primary roles:

- Command and Control – executive direction and management (including resource management) of subordinate districts;
- Policy Guidance – development of strategy, policy, and guidance for development, defense, and execution of division-wide programs and projects;
- Program Management – program development to integrate district-wide programs into division-wide programs, program defense of division-wide programs, and execution oversight and analysis of division-wide programs and projects;
- Regional Interface – coordination of issues which cross district boundaries and/or involve regional interests, higher headquarters, state agencies, and regional or higher headquarters of Federal agencies/foreign governments; and
- Quality Assurance – oversight to ensure process and procedures are in place to produce safe, timely, reliable, and cost-effective products and services.

A division headquarters office manages itself and all of its subordinate districts as a single business center, balancing the types of quantities of workload against resources throughout the division’s area of responsibility. Design of organizational structure is delegated to division commanders. The intent is to give

subordinate commanders the flexibility necessary to meet customer needs, obtain efficiencies, adjust to resource constraints, and optimize good business practices. MSCs are responsible for program coordination among district offices to ensure efficient and effective program execution, establishment and oversight of technical centers of expertise, and workload and workforce planning. The Major Subordinate Commands are responsible for a strong navigation mission, as well as preservation, restoration, and enhancement of environmental resources, including but not limited to measures for fish and wildlife, increased water supplies, recreation, cultural resources, and other related water resources development programs.. The FY 2012 civilian FTE staffing level for MSCs is 405. HQs reimburses the Department of Army for 18 civil uniformed military positions. The civilian FTE level for each MSC varies based upon the scope of their Civil Works responsibilities. The MSCs may have between 49 to 63 FTEs, except for Pacific Ocean Division, which has 17 FTE due to its predominate military workload,

\$	59,822	Civilian Personnel Compensation and Benefits
	<u>13,055</u>	Non-labor Costs
\$	72,877	

c. Administrative Expenses for Field Operating Activities
Base Level Operating Expenses

FY 2012 Request
\$18,333

Expenses appropriation also funds management and operation costs allocable to the civil works program of Corps-wide support facilities including: Humphreys Engineer Center Support Activity (HECSA) – this field operating activity of the Corps provided day-to-day operational support services to the Corps; Institute for Water Resources (IWR) – This institute performs studies and analyses on a wide range of water resource issues and develops project planning techniques; Engineering Research and Development Center (ERDC) – This center operates several labs and conducts research and development for the Corps and other agencies; U.S. Army Corps of Engineers Finance Center (UFC) – This center supports all Corps finance and accounting activities; US Army Corps of Engineers Logistics Activity (ULA) provides logistics planning and operations support, supply and maintenance services, facilities maintenance services, transportation services, and regional logistics liaisons to USACE commands and activities in order to provide supply and service support across the full spectrum of operations. The Expense appropriation funds 30 FTE to oversee these operations; Corps of Engineers – Information Technology (ACE-IT), ACE-IT (Army Corps of Engineers - Information Technology) was selected as the IM/IT service provider for the U.S. Army Corps of Engineers as part of the USACE A-76 competitive sourcing initiative. The ACE-IT team is comprised of USACE Government staff, providing mission-assured services, along with Lockheed Martin staff. ACE-IT is the provider of Information Management/Information Technology (IM/IT) support for USACE. The ACE-IT mission is to provide enterprise-wide IM/IT services for all information management functional areas to include Automation, Communication, Information Assurance, Records Management, Printing & Publications, and Visual Information. These services include local support activities, as well as enterprise services such as centralized AIS hosting, long-haul communications, e-mail support, service desk, and information assurance services. The Expense appropriation funds 15 FTE to oversee the services provided by ACE-IT. The FOAs have a total of 120 civilian (no uniformed military positions) FTE.

\$	15,774	Civilian Personnel Compensation and Benefits
	<u>2,559</u>	Non-labor Costs
\$	18,333	

4. Account Summary:

	HQ	MSC	FOA	TOTAL
Civilian Personnel Compensation and Benefits	\$ 62,290	59,822	15,774	\$137,886
Non-labor Costs	\$ 17,986	13,055	2,559	\$ 33,600
Campaign Account	\$ 13,514			\$ 13,514
TOTAL	\$ 93,790	72,877	18,333	\$185,000

Office of the Assistant Secretary of the
Army (Civil Works)

Justification of Estimate for Civil Functions Activities
Department of the Army, Corps of Engineers
Fiscal Year 2012
(\$000)

APPROPRIATION TITLE: Office of the Assistant Secretary of the Army (Civil Works)

	<u>FY 2011</u> <u>Budget</u>	<u>FY 2012</u> <u>Budget</u>	<u>Change</u> <u>FY 2011-2012</u>
Policy Direction and Oversight	\$ 6,000	\$ 6,000	\$ 0

JUSTIFICATION:

In accordance with 10 USC 3016(b)(3), the Assistant Secretary of Army for Civil Works (ASA (CW)), has the principal responsibility for overall policy direction and supervision of Department of the Army (DA) functions relating to all aspects of the Civil Works Program, including all reimbursable work performed by the U.S. Army Corps of Engineers (USACE) on behalf of Federal and non-Federal entities.

Specific responsibilities of the ASA (CW), assigned by statute and/or Army General Orders, include the following:

A. Managing and supervising the DA Civil Works Program, including:

1. Developing, defending, and directing the execution of DA Civil Works policy, legislative activities, and financial programs and budget.
2. Developing policy and guidance for, and administering the DA regulatory program to protect, restore, and maintain the waters of the United States in the interest of the environment, navigation, and national defense, pursuant to the Rivers and Harbors Appropriations Act of 1899, the Federal Water Pollution Control Act (Clean Water Act), as amended, and the Marine Protection Research and Sanctuaries Act of 1972.
3. Developing the DA position on USACE civil works studies and projects, including coordination with OMB under E.O. 12322, and transmission of the Secretary's recommendations to Congress.
4. Serving as congressional liaison on civil works matters, including serving as the DA point of contact for House and Senate Authorization and Appropriations Committees charged with oversight of the DA Civil Works Program.

B. Overseeing the development, coordination, and implementation of policy for USACE programs in support of other Federal and non-Federal entities, except those activities that are exclusively in support of U.S. military forces.

C. The OASA-CW also, in coordination with the Army's Deputy Chief of Staff, G-3, develops policy for and directing the foreign activities of the USACE, except for those foreign activities that are exclusively in support of U.S. military forces overseas.

DESCRIPTION:

The budgeted amount will be used to finance costs sub-allocated to the Office of the ASA (CW) by the Department of the Army, including the costs of 25 full time equivalent work years, and indirect and overhead costs consistent with those funded in recent appropriations.

SUMMARIZED FINANCIAL DATA:

	<u>FY 2012</u>
Personnel Compensation and Benefits (fully fund authorized staff to accomplish mission)	\$ 3,100,000
Support Services (space, utilities, communications, ADP, etc.)	\$ 1,900,000
Other (travel, transportation, training, printing, supplies and equipment)	<u>\$ 1,000,000</u>
Total FY 2012 amount:	\$ 6,000,000

REVOLVING FUND

APPROPRIATION TITLE: Revolving Fund- Plant Replacement and Improvement Program (PRIP)

1. Explanation of Revolving Fund. The Revolving Fund, established by Congress in 1953 (P.L. 83-153, 67 Stat. 199), replaced the Plant Allotment Account authorized by the Secretary of War, on 13 December 1934, which had in turn replaced the Plant Program - Appropriation Basis that was used prior to 1934. Prior to the establishment of the Revolving Fund, accounting procedures necessitated by the two previous systems were cumbersome and resulted in a distorted picture of costs when plant was transferred from one appropriation to another.
 - a. Essentially, P.L. 83-153 provided that the Revolving Fund assumed the total capital value of \$127.9 million in 1953, consisting of the unexpended cash balance (\$25.3 million) and the net value (\$102.6 million) of the assets and liabilities of the plant accounts. The Revolving Fund would finance all future services as a separate entity within its own resources. The Plant Replacement and Improvement Program of the Revolving Fund (PRIP), has proven to be an effective means of providing equipment and materials needed on more than one project. Some advantages of the system are that it: (1) Simplifies funding and accounting procedures; (2) Provides consideration for plant replacement costs and inflation; (3) Eliminates distorted project costs when plant is used on multiple projects throughout its economic life; and (4) Permits plant availability on a timely basis to meet requirements.
 - b. The Revolving Fund operates within its own resources rather than from recurring annual appropriations. The Fund owns land, structures, dredges, floating plant, aircraft, fixed and mobile land plant, tools, office furniture, special equipment, computers and automated systems, which serve two or more projects or appropriation accounts. In order for the Revolving Fund to acquire and replace assets, plant or equipment items, it is necessary that the user, project, or appropriation be charged a fee when equipment or services are consumed. This fee consists of operating and fixed costs. The operating costs are reimbursed without a surcharge. The fixed costs include straight-line depreciation and a PRIP surcharge to provide for price growth and inflation. When planned expenditures exceed the income producing capability of the Fund, additional direct appropriations are required.
 - c. When the Revolving Fund was established, Congress authorized a capital fund limitation or ceiling of \$140.0 million. The capital fund value or corpus consists of the total assets, less liabilities and reserves. The initial corpus ceiling was adequate until 1965, when rising workload and inflation forced the Corps of Engineers to begin Budgeting annual increases of the corpus. These requests were generally granted, because the ceiling limited the income generating capability, which in turn, adversely affected the overall management of the Fund. Therefore, the Corps recommended and Congress granted the request in FY 1979, that annual capital-expenditure ceilings be substituted for the corpus ceiling. Then in FY 1985, expenditure ceilings were replaced by expenditure estimates. Starting in FY 1994, the Corps replaced the estimate of expenditures with an estimate of obligations in accordance with recommendations by the General Accounting Office.
2. The Revolving Fund accounts for facilities, payroll, and operations throughout the Army Corps of Engineers at its divisions, districts, separate field offices, and laboratories including its Engineer Research and Development Centers like the Waterways Experiment Station. The fund incurs expenses for acquisition, rehabilitation, operation, and maintenance of multiple use structures such as warehouses, shops and garages, as well as general-purpose plant, such as dredges, tugs, launches, trucks, cranes, bulldozers, drill rigs and other construction equipment. It also provides for reimbursement of the general and administrative expenses of District offices.
3. The FY 2012 PRIP includes 3 New Major Items and 37 Continuing Major Items from FY 2011. 4 Continuing Major Items have revised cost estimates greater than twenty percent above those that were previously reported. The tables that follow provide cost estimates for the New Major Items and revised cost estimates for the Continuing Major Items with increases in excess of twenty percent.

APPROPRIATION TITLE: Revolving Fund- Plant Replacement and Improvement Program (PRIP)

FY 2012 New Major Items	Page	Total Estimated Cost (\$000)
1. Cold Regions Research and Engineering Laboratory (CRREL) Land Purchase, Hanover, NH	4	18,000
2. KEY WOODS Replacement, MDC No. 2522, Vicksburg District	8	14,987
3. SHORTY BAIRD Replacement, MDC No. 2885, Little Rock District	9	15,000
		Total: 47,987

Continuing Major Items with Revised Cost Estimates in Excess of 20%	Page	Previous Estimated Cost (\$000)	Revised Estimated Cost (\$000)	Total Cost Increase (\$000)
1. Additions and Betterment to Information Technology Laboratory (ITL) Building – Notification letter submitted in September 2010.	3	29,500	33,600	4,100
2. Real Estate Management Information System (REMIS)	9	10,4006,6	19,500	9,100
3. Enterprise Data Warehouse (EDW)	10	00	10,600	4,000
4. Seattle District Relocation – Furnish New District HQ	11	3,775	8,421	4,646

APPROPRIATION TITLE: Revolving Fund- Plant Replacement and Improvement Program (PRIP)

<u>PRIP Category</u>	<u>Page</u>
Land and Structures	3
Dredges	5
Other Floating and Mobile Land Plant	7
Fixed Land Plant and Automated Systems	9
Tools, Office Furniture and Equipment	11

4. FY 2011 and FY 2012 (Items costing \$5,000,000 or more)

a. Land and Structures:

(1) Real Time Vessel Simulator Upgrade, Engineering Research and Development Center (Continuing). The Coastal and Hydraulics Laboratory (CHL) in Vicksburg, Mississippi, was formed in FY97 through the merger of two of the Army Engineer Research and Development Center (ERDC) laboratories, the Hydraulics Laboratory and the Coastal Engineering Research Center. Within the CHL mission of supporting the Corps water resources related needs of the Department of Defense, an ever increasing level of sophistication, integration, and comprehensiveness in technical tools and solutions is required. The CHL Navigation Branch operates the only Corps vessel simulator, which is the primary means to evaluate and optimize proposed changes to Federal navigation channels. With the ability to function as a ship, towboat, or small craft, it can be used for deep and shallow draft projects and small boat harbors. The simulator operates in real time and is used by actual mariners to help finalize Corps channel designs. Total estimated cost: \$5,300,000. FY 2010: \$4,495,000. FY 2011: \$805,000.

(2) Additions and Betterment to Information Technology Lab – Engineer Research and Development Center (Continuing). Additions and betterments are needed to expand the Information Technology Lab (ITL) to accommodate a new Department of Defense purchased supercomputer. The Engineer Research and Development Center (ERDC) examined all of its requirements for computer acquisitions in the next five years in order to determine the new building requirements. Along with the building expansion, extensive increases in power and cooling requirements are included in the project. The design of the addition to the facility will also allow employees who currently work in adjoining trailers to move into the building. Total estimated cost: \$33,600,000. Previous years: \$29,500,000. FY 2011: \$4,100,000. Congressional authorization to use PRIP funds to construct a new Environmental Laboratory and provide improvements to the Information Technology Laboratory was provided in Section 107 of the Consolidated Appropriations Act, 2008 (Public Law 110-161).

(3) Renovate Docks A and B – U.S. Moorings - Portland District (Continuing). Refurbishing Docks A and B would bring them up to modern load bearing standards. The U.S. Government moorings facility, Docks A and B has been in existence since 1903 to provide berthing during the winter repair period for minimum fleet hopper dredges ESSAYONS and YAQUINA. The last major refurbishment of the docks was in 1964. Since then, the dock surfaces have been re-decked and shear piles replaced periodically due to normal wear and tear. The stringers have rotted and several pile cap timbers have extensive dry rot up to four feet back from the exposed ends. Total estimated cost: \$6,200,000. This project is currently on hold. No money has been committed or obligated in FY 2006 or FY 2007. An environmental cleanup is required at the site and a number of options are currently being considered. One of the options would require removal of the docks. As a result, refurbishment of the docks is on hold until a decision has been made.

(4) Ouachita-Greenson-DeGray Project Management Office - Vicksburg District (Continuing). The need for the new Ouachita-Greenson-DeGray Project Management Office building has evolved around the three Arkansas Lake and power plant projects and their associated mission-essential operational facilities. Today, there are 155 Government employees and 74 contract employees working out of this office. The existing facility space being utilized is not adequate for current staff, essential employee training purposes or joint meeting requirements. Employees are required to attend joint meetings, training courses, and conference sessions several times annually. Personnel are left with no adequate facility available for these purposes based on the remote location of these projects. The building currently occupied by

APPROPRIATION TITLE: Revolving Fund- Plant Replacement and Improvement Program (PRIP)

the Ouachita Project Management Office will be turned over to the contractor for their use; shop personnel will utilize the building currently occupied by the Lake Ouachita Field Office. All other shop and maintenance space will continue to be used as is. Ouachita Project Management Office and Lake Ouachita Field Office personnel will use the new facility as office space. The Ouachita Project Management Office and its subordinate Lake Field Offices and Power Plants will also use the facility for conferences, meetings, and classroom/training space. The new facility will conform to employee space utilization/requirements specified in AR 405-70, provide space for all employees to meet in a central location, fill ongoing need for classroom/training space, provide storage for supplies and equipment, and meet current technological requirements for communications and electrical systems that can be upgraded in the future. The cost increase is a result of rising construction costs brought on by higher energy/fuel costs, Hurricanes Katrina/Rita, and the mid-west floods. Total estimated cost: \$7,247,800. Prior Years: \$6,233,470. FY 2011: \$1,014,330 to complete construction.

(5) New Engineer Research and Development Center (ERDC) Headquarters Building (Continuing). ERDC Headquarters, Command Staff Division, and assembly facilities are currently housed in five separate facilities that are aging and energy-inefficient. The current buildings do not comply with "Green standards" set by the Leadership in Energy and Environmental Design (LEED) Certification Program or anti-terrorism standards and some buildings contain asbestos. The proposed facility would replace several buildings and would provide office, meeting, training, reception, technical support, and quality of life space for ERDC headquarters and administrative personnel and tenant organizations in a modernized facility that complies with DoD minimum antiterrorism standards for buildings. The new facility would increase productivity, reduce operating costs, improve morale and synergy among the staff, enhance force protection, and promote efficiency and enhanced management control through co-location of functions and personnel currently located in a number of widely separated buildings on the 700-acre Vicksburg installation. Preliminary estimates are that approximately 120,000 square feet would be sufficient to replace the current approximately 169,000 square feet in five separate outmoded buildings. Note: Before this project is executed, it will require special Congressional authorization for the use of PRIP funds. Total estimated cost: \$30,000,000. FY 2013: \$18,800,000. Future Years: \$11,200,000.

(6) Service Base Mooring Replacement, Pile Clusters, MDC 2768, St Louis District (Continuing). This project addresses safety, environmental conditions and mission requirements associated with the St. Louis District mooring facility due to the failure of four out of twelve wood pile clusters and the compromised southern mooring fleet area. The scope of work includes design and replacement of the piling system, removal of the existing pilings and replacing the trestle. The piling system supports the mooring facility at Mississippi River Mile 276. Currently, the southern wood pile clusters have failed and fleet barges are resting against a minimal number of remaining wood pile clusters. The replacement of the pile system will provide the St. Louis District fleet with mooring facilities designed to meet Coast Guard and marine safety criteria. Total estimated cost: \$19,000,000. Prior year: \$12,951,400 FY 2011: \$6,048,600.

(7) District Headquarters Building, Wilmington District (Continuing). The project involves preparing a GSA leased facility to house the Wilmington District staff and records. The current GSA lease has expired and, along with the fact that the current facility will not meet Uniform Facilities Code (UFC), the District must relocate. A two year lease extension was negotiated in 2008 to allow for time to prepare a new office. The new space must be constructed with private offices (53), conference rooms (5), cubicles (180), and equipped with standardized work stations and chairs, conference room and office furniture, and computer cabling and equipment. The new facility will meet the new UFC guidelines for leased facilities and provide for "green" space utilization. Total estimated cost: \$6,500,000. Prior Years: \$258,000. FY 2011: 6,242,000.

(8) Huntington District Federal Building Upgrade, Huntington District (Continuing). The Huntington District Federal Building is currently scheduled to undergo GSA ARRA funded renovations starting in FY 2010. During these renovations, Huntington District will make improvements to the building in order to meet Department of Defense minimum antiterrorism standards for buildings, and improve work environments to accommodate the recent increase in staffing. The work will consist of tenant improvements such as replacement of interior walls, ceiling, floor finishes, and carpet. More efficient floor layouts will be constructed as well. Security upgrades will include reinforcement of walls and windows, and structural retrofit for progressive collapse. Total estimated cost: \$21,000,000. FY 2010: \$16,950,000. FY 2011: \$250,000. FY 2012: \$3,800,000.

(9) Cold Regions Research and Engineering Laboratory (CRREL) Land Purchase, Hanover, New Hampshire (New). The purpose is to acquire approximately 19 acres and associated easements of real property and improvements located at Dartmouth College, Hanover, New Hampshire. The land is currently under lease to and operated by the US Army Cold Regions Research and Engineering Laboratory (CRREL). CRREL's current lease with Dartmouth is due to expire on

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30 June 2011. Dartmouth informed CRREL that there will be a significant increase in rent for a new long term lease. Current estimates for lease costs are approximately \$2,000,000 per year. These higher lease rates will jeopardize CRREL's ability to support USACE, the Army and the nation. The CRREL mission provides direct support to the War Fighter, overseas contingency operations, USACE emergency management operations, and other federal agencies. Over the 50-year term of CRREL operations, the Government has made substantial improvements to the 19 acre leased parcel to include, but not limited to, approximately 300,000 square feet of office and unique research facilities. Dartmouth has offered to sell the land to the Government rather than setting up a new long-term lease. Purchasing the parcel of land has been determined to be the most cost effective and will ensure continuity of operation in support of the mission requirements. Total estimated cost: \$18,000,000. FY 2012: \$18,000,000.

b. Dredges:

(1) Dredge YAQUINA Repowering – MDC Project 2507 Portland District (Continuing). The dredge YAQUINA entered service in 1981. It is based in Portland, Oregon, and is part of the Corps hopper dredge fleet. The dredge operates on the West Coast to maintain Federal navigation channels. The main engines and ancillary systems have been in continuous service for twenty nine years. The main engines are no longer manufactured and it is becoming increasingly difficult to locate and procure replacement parts. Replacement of the main engines and ancillary systems is required in order to assure continued operation of the vessel. In addition, due to the ever increasing stringent emission standards, the engines should be replaced with more efficient marine diesels. Total estimated cost: \$18,211,000. Prior Years: \$13,174,800 FY 2011: \$3,266,000. FY 2012: \$835,900. Future Years: 934,300.

(2) Dredge YAQUINA Dredging System Improvement MDC Project 2727 – Portland District (Continuing). The dredge YAQUINA entered service in 1981. It is based in Portland, Oregon, and is part of the Corps hopper dredge fleet. The dredge operates on the West Coast to maintain Federal navigation channels. The dredge pump engines, reduction gears, dredge pumps, hopper distribution system, and ancillary systems have been in continuous service for twenty eight years. The dredge pump engines are no longer manufactured and have been rebuilt several times. It is becoming increasingly difficult to locate and procure replacement parts. Replacement of the dredge pump engines and ancillary systems is required in order to assure continued operation of the vessel. The hopper distribution system is dated and will require redesign in order to maximize the settling and loading times from the new engine and more efficient dredge pump combinations. In addition, due to the ever increasing stringent emission standards, the engines should be replaced with more efficient marine diesels. Total estimated cost: \$9,176,000. Prior Years: \$2,090,400. FY 2011: \$2,826,600. FY 2012: \$2,925,700. Future Years: \$1,333,300.

(3) Dredge POTTER Flexible Discharge – MDC Project 2717 St. Louis District (Continuing). This project entails the purchase of a flexible discharge floating pipeline, a spill and store barge, and handling gear for the Dredge POTTER. The new floating pipeline will provide the ability to better perform environmental dredging on the Mississippi River. Environmental dredging requires the use of fixed point discharge equipment in order to place dredged materials in specific locations to build beaches, islands, and underwater islands. Total estimated cost: \$8,000,000. Prior Years: \$6,513,400. FY 2011: \$1,486,600.

(4) Dredge McFARLAND Asbestos/Lead Abatement MDC 2603 – Philadelphia District (Continuing). Abate asbestos and red lead paint to achieve current occupational safety standards in active crew spaces: forward and aft crew quarters (pilothouse, galley, etc.); aft engine and machinery rooms; and the forward dredge pump rooms. The dredge McFarland was built in 1967 when both asbestos and red lead paint were in wide use. Asbestos is present throughout the McFarland in the fireproof crew space joinery (sheathing, ceiling, and paneling); pipe insulation; and structural fireproof insulation on steel bulkheads. Red lead paint was used throughout the ship as the corrosion resistant base primer coat on all interior hull and steel. The aged vessel has asbestos fragments lodged in inaccessible areas behind the joinery panels. The vessel and its crew of 60 have two missions: (1) emergency and national defense dredging worldwide and (2) planned dredging in commercial waterways, mainly Federal navigation projects along the Atlantic and Gulf Coasts. Total estimated cost: \$6,000,000. Prior Years: \$5,101,000. FY 2011: \$877,800. FY 2012: \$21,200.

(5) Dredge POTTER Texas Deck Rehab MDC2738 – St. Louis District (Continuing). This project entails the refurbishment of the forward quarters and pilot house for the Dredge POTTER. The dredge is a 2,400 horsepower dustpan dredge which maintains 300 miles of the Mississippi River. The project will provide for more

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usable and habitable crew space and remove all lead based paint and asbestos. The pilot house has become crowded with all of the new electrical and electronic equipment, controls, and navigation aids that are required for modern day dredging and navigation. The present pilot house is a 1932 vintage design and is very narrow. The captain and crew must go outside during operations in all kinds of weather in order to avoid hitting obstructions. The Texas Deck also was designed in 1932 and it is where the offices are located on the dredge. The Second Deck is where the messing area and bunkrooms are located. The contaminants need to be removed from this area for the health and safety of the crew. Total estimated cost: \$8,468,200. Prior Years: \$7,739,700. FY 2011: \$519,200 FY 2012: \$209,300.

(6) Dredge WHEELER Repowering and Integrated Control and Monitoring System, MDC Project 2620 – New Orleans District (Continuing). Repowering by installing four replacement diesel engines is considered an addition and betterment to the WHEELER, due to the anticipated increase in fuel efficiency and the lowering of exhaust emissions for the vessel. A horsepower increase for propulsion is feasible. The engines currently in service are aged and recurring component wear and failure problems with these engines, combined with the manufacturer inability to provide replacement spare parts in a timely manner have warranted their replacement. If the WHEELER is not repowered, the engines currently in service are likely to suffer catastrophic damages as they have in the past. The high maintenance and high fuel consumption for the engines will continue. If one of the engines should become unserviceable, the vessel would likely be out of service for a period of three years in order to affect such major repairs. The vessel is primarily to support the navigation mission by dredging on the Mississippi River, Southwest Pass, and other Federal waterways. The ICMS is to be added in FY2009. The current system is obsolete and many of the electronic components are unsupportable with regard to repair or direct replacement. The benefits of repowering the WHEELER would be significantly reduced if the current ICMS is not replaced due to the decreased reliability of the vessel. Total estimated cost: \$54,200,000. Prior Years: \$16,398,300. FY 2011: \$2,000,000. FY 2012: \$33,164,500. Future Years: \$2,637,200.

(7) Dredge FRY Shallow Draft Dredge Replacement (MDC2609) - Wilmington District (Continuing). Purchase a new shallow-draft hopper dredge in order to maintain shallow coastal inlets along the Atlantic coast while adhering to environmental restrictions on side cast dredges. The dredge FRY was built in 1944 as a U.S. Navy seaplane wrecking derrick and converted to a side-casting dredge in 1972 when acquired by the Corps. Theoretically, the FRY has a remaining useful life of 9 years but in reality, it is virtually worn out and does not meet current environmental standards. Regulatory agencies have restricted its use due to the disturbance created by the discharge of dredged materials. In 2002, the dredge crane failed resulting in emergency maintenance and more downtime. Alternatively, a crane replacement and a propulsion system upgrade would require lengthy shipyard work. It has been determined by the Marine Design Center that it would be more economical to replace the vessel FRY with a new shallow draft hopper dredge than to continue repairs/upgrades. In addition, a new dredge would be compliant with new environmental restrictions on side cast dredging. Total estimated cost: \$20,000,000. Prior Years: \$15,036,200. FY 2011: \$2,963,800. FY 2012: \$2,000,000.

(8) Dredge ESSAYONS Repowering MDC 2548 - Portland District (Continuing). Install new, more efficient, low emission diesel engines to save fuel, reduce the crew size and lower permitting (air resources board) cost. The original engines have been in service for 20 years, rebuilt numerous times, and are near the end of their economic lives. The engines do not lend themselves to effectively decrease exhaust emissions and to comply with emission standards. The engines will fail and the dredge would be removed from service without the repowering. The dredge ESSAYONS is one of four seagoing hopper dredges that comprise the minimum fleet, authorized by Public Law 95-269 and a U.S. Coast Guard certified vessel capable of going anywhere in the world. During the dredging season, the vessel operates 24 hours per day, seven days per week. Its primary mission is dredging harbors and coastal regions along the West Coast of the United States, Alaska, and Hawaii. It would take approximately three years to repower the existing engines at a loss of revenue equal to \$46.9 million as compared to new engines at a cost of \$37 million. Total estimated cost: \$35,072,800. Prior Years: \$34,397,800. FY 2011: \$675,000 to complete construction.

(9) Dredge Ladder Extension for the HURLEY, MDC 2450 - Memphis District (Continuing). Make modifications to increase the dredging depth of the HURLEY from 40' to 75'. This involves lengthening the existing dredge ladder, extending the hull to accommodate the longer ladder, and modifying the ladder hoisting mechanism. As presently equipped, the HURLEY can effectively be utilized only to dredge the shallow draft channel of the Mississippi River. The ladder extension will allow the HURLEY to be used to maintain the deep draft channel from Baton Rouge to New Orleans, extending its useful dredging season to about 250 days per year. Additional ladder hoisting and forward hull propulsion and maneuverability requirements associated with the longer hull form are included. Modifications will be accomplished during the lay up period, which normally runs from December to June. This project has been on hold for several years in order to allow for a review of the approach to the dredging mission including the need to coordinate with private industry. Total estimated cost: \$17,800,000. Prior Years: \$10,100,400. FY 2011: \$7,133,600. FY2012: \$364,100. Future Years: \$201,900.

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(10) Dredge McFARLAND Ready Reserve, MDC 2802, Philadelphia District, (Continuing). The Hopper Dredge McFARLAND is one of four Corps seagoing hopper dredges, which comprise the minimum fleet, authorized by PL 95-269. Section 2047(a) of the Water Resources Development Act of 2007 (Public Law 110-114) directed the Secretary of the Army to place the McFARLAND in ready reserve status not earlier than October 1, 2009 and not later than December 31, 2009. The dredge requires a number of upgrades and renovations to its mechanical and electrical systems in order to be reliable and meet all regulatory requirements. Total estimated cost: \$9,587,700. Prior Years: \$5,417,500. FY 2011: \$3,250,000. FY 2012: \$720,200. Future Years: \$200,000.

c. Other Floating and Mobile Land Plant:

(1) Revetment Crane Barge MDC Project 2690 – Memphis District (Continuing). The existing barge is of a 1958 series and is leaking badly and beyond repair. The crane barge is a vital part of the revetment operation on the Mississippi River where articulated concrete mats are placed on the banks of the river during low water to prevent scour and erosion. This operation has been ongoing for about one hundred years. There are two cranes and one of the cranes is used for the land clearing operation prior to the placement of the mats. The other crane is used for placement of gravel. The existing 100-ton capacity crawler cranes will be placed on the barge after it has been constructed. The barge typically has a pilothouse for shelter and a storage hold. As well as providing a work platform, the barge is used to transport equipment and debris to and from the work sites. Total estimated cost: \$10,000,000. Prior Years: \$8,597,400. FY 2011: \$273,000. FY 2012: \$1,035,300. Future Years: \$94,300.

(2) Motor Vessel STRONG Replacement, 2730. Memphis District, (Continuing). A replacement vessel is required for the Motor Vessel STRONG. The Strong has been used on many occasions to assist the Revetment Unit, Mat Sinking Unit, and Dredge Hurley in towing of plant because of emergency conditions or equipment breakdown during the Revetment Season. The exact timing for any one of these missions is virtually impossible to predict because they are dependent on river levels and/or breakdown of other government or leased vessels. In the aftermath of Hurricane Katrina, the availability of motor vessels and barges for lease has become much more difficult. The increased horsepower and height of the new vessel will allow it to more safely and effectively respond to the needs of the Memphis District. The work includes development of a suitable progression of design and construction of one 2200-2500 BHP, self-propelled towboat. Total estimated cost: \$14,000,000. Prior year: \$9,501,500. FY 2011: 2,329,000. FY 2012: \$360,000 Future Years: \$1,809,500.

(3) Motor Vessel ROCK ISLAND Replacement, 2687, Rock Island District (Continuing). The towboat is used to push maintenance barges for strike removal, rock placement, and repairs to structures. The towboat will replace the MV Muscatine, which was placed in service in 1976. The propulsion system and other major components have reached the end of their service where maintenance requirements are expected to ramp up in order to keep the vessel in operation. The new towboat will be based on an existing design, which was used for the MV DAVENPORT. The towboat is an essential component required to achieve mission responsibilities. Strike removal and repairs to control structures in the Mississippi require maneuvers in areas where strong currents can jeopardize the safety of the operation. The vessel is at times required to operate in perilous conditions near dams and other control structures where reliability and performance is mandatory to minimize risk to crews and other floating plant. The "state of art" design takes advantages of modern hull design and engine refinements which will reduce operating costs and simultaneously improve performance. Total estimated cost: \$5,587,200. Prior Years: \$5,090,000. FY 2011: \$305,000. FY 2012: \$142,200. Future Years: \$50,000.

(4) Dam Stilling Basin Dewatering Box and Barge, MDC 2811, Louisville District (Continuing). The dewatering box and transport/storage barge will be used to repair dam stilling basins at multiple Ohio River projects in the Louisville District. Deterioration of the current stilling basins has been observed and documented by diving inspections and show the loss of concrete is increasing. Many of these have exposed and missing rebar. The purchase of the dewatering box would permit the repair of stilling basins in a dry condition, providing a means for a more permanent and safer repair. The Louisville District has 54 stilling basins where the dewatering box can be used. The dewatering box and barge is a highly specialized piece of equipment that is not available on the commercial or surplus market. As a result, it is not possible to perform the required work by contract. Project is currently on hold and is undergoing a design review by Louisville District. Total estimated cost: \$5,150,000. Prior Years: \$78,900. FY 2011: \$5,000. FY 2012: \$5,010,000. Future Years: \$56,100.

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(5) Revetment Crane Barge - Snag Barge, MDC 2800, Memphis District (Continuing). There are currently two barges but because of escalating costs only one barge will be replaced at a time. The first barge to be replaced is believed to be a 1958 series barge. The hull has deteriorated because of corrosion and harsh operating conditions. The barge has experienced leakage due to normal deterioration and extreme service. Loss of either barge could adversely impact the overall revetment mission. Total estimated cost of the first barge: \$12,600,000. Prior Years: \$9,309,400. FY 2011: \$500,000. FY 2012: \$45,000. Future Years: \$2,745,600.

(6) Two Striker Barges, MDC 2686, Rock Island District (Continuing). The project involves designing and constructing two new barges to replace the existing barges which have developed serious structural problems with the deck and deck support members. The current barges were under-designed for the purpose for which they are used and have deteriorated much faster than anticipated. The new barges are being designed to properly handle the loading that these barges receive to ensure better longevity and serviceability. In addition, the new design has much greater capacity which will reduce towing costs and thereby enhance efficiency. An economic analysis has been performed which shows that purchasing new equipment is the most cost effective solution. Total estimated cost: \$7,100,000. Prior Years: \$6,059,600. FY 2011: \$892,400. FY 2012: \$148,000.

(7) Crane Barge (Strong Vessel), MDC 2733, Memphis District (Continuing). The project involves the design and construction of one crane barge. The current barge was obtained as salvage from the Coast Guard and will not be compatible with the motor vessel Strong replacement due to be delivered in FY09. The existing barge is narrower than the Strong replacement vessel and will create problems when setting buoys. The new barge will also have enhanced firefighting capabilities. Total estimated cost: \$9,000,000. Prior Years: \$389,500. FY 2011: \$8,350,000. FY 2012: \$95,400. Future Years: \$165,100.

(8) Motor Vessel CLINTON Replacement, MDC 2688, Rock Island District (Continuing). The project involves design and construction of a replacement towboat. The current vessel was placed in service in 1974 and the propulsion system and other major components have reached the end of their useful life. The towboat is used to push maintenance barges for strike removal, rock placement, and repairs to structures. The vessel is required to operate at times in perilous conditions near dams and other control structures where reliability and performance is essential in order to minimize risk to crews and other floating plant. Total estimated cost: \$7,112,700. Prior Years: \$4,436,000. FY 2011: \$2,451,700. FY 2012: 150,000. Future Years: \$75,000.

(9) Motor Vessel RUSSELBURG Replacement, MDC 2770, Louisville District (Continuing). The project involves replacing the current workboat which is 15 years old and used extensively for lock and dam repair of Louisville District projects. Maintenance for the current boat is increasing and hindering accomplishment of the mission. The new boat will have more power for safer handling of the barges in the fleet during adverse river conditions. It will also be equipped with a larger crane that would be designed and rated for personnel handling. The current crane is not rated to handle personnel. Total estimated cost: \$9,415,000. Prior Years: \$37,900. FY 2011: \$550,000. FY 2012: \$8,500,000. Future Years: \$327,100.

(10) Survey Vessel FLORIDA Replacement, MDC 2806, Jacksonville District (Continuing). The survey vessel FLORIDA was purchased in 1973 and has deteriorated to the point that it is not longer cost effective to maintain and repair. The condition of the vessel is no longer adequate to ensure efficient and reliable coverage of all assigned survey areas. Total estimated cost: \$4,989,200. Prior Years: \$19,200. FY 2011: \$4,785,000. FY 2012: \$170,000. Future Years: \$15,000.

(11) KEY WOODS Replacement, MDC 2522, Vicksburg District (New). The towboat KEY WOODS operates on the Ouachita/Black Waterway, Red River Waterway, and Lower Mississippi River, transporting equipment and supplies to support navigation infrastructure repair projects to include, nine locks and dams and approximately 500 river miles of channel maintenance and performance of other regional work. Engineering and Design funds are needed to perform initial design work under coordination with Marine Design Center (MDC). The KEY WOODS is within 5 years of its 40 year estimated useful life. Equipment repair costs and downtime is increasing and affecting efficient operation and is hampering timely completion of work. The vessel also has asbestos laden materials used in the construction of walls, ceiling, and engine room. The vessel is fully utilized and workload is expected to increase over time. Engineering and Design funds will be used for the design process with MDC by first researching "off the shelf" designs for suitability and/or development of concept plans and specifications. It is expected that the project will be ready as a new major item in FY 2013. Total estimated cost: \$14,986,700. Prior Years: \$10,200. FY 2011: \$0. FY2012: \$50,000. Future Years: \$14,926,500.

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(12) SHORTY BAIRD Replacement, MDC 2885, Little Rock District (New). The Project consists of replacement of the existing towboat. The current vessel is past its useful life and does not meet current safety or environmental requirements. The new towboat will support the operation and maintenance mission on the McClellan-Kerr Arkansas River Navigation System for the Little Rock District. The new vessel will provide propulsion and act as a berthing platform for the Arkansas River Fleet. The towboat will also be utilized by the Omaha District, Memphis District, and other Corps Districts as needed. Total estimated cost: \$15,000,000. FY 2012: \$50,000. Future Years: \$14,950,000.

d. Fixed Land Plant and Automated Systems:

(1) Real Estate Management Information System (REMIS) – Corpswide (Continuing). The Army Corps of Engineers is the responsible agent for the acquisition and disposition of real estate for the Army Civil Works and Military projects and for the Air Force. REMIS is the tool that the Corps uses to administer and manage property that is out-granted at civil projects, Army bases and Air Force installations. REMIS is the official, auditable database of record for the Corps Civil Works Real Property Inventory (RPI) of public lands, buildings and structures. REMIS supports e-Gov as the official database of record for the real property inventory of Army and Air Force land holdings. Base Realignment and Closure (BRAC) actions are administered by the Corps and recorded in REMIS. REMIS serves as a Chief Financial Officer compliant subsidiary ledger to CEFMS (Corps of Engineers Financial Management System), and provides annual accountability reports to the GSA (General Services Administration). The original version of REMIS had performance gaps relating to: full compliance with the DoD Real Property Inventory Requirements (RPIR), DoDI 4165.14 Instructions, DoD Real Property Unique Identification Registry (RPUIR), Geographic Information System (GIS) capability, Graphical User Interface, Data Sharing, Document Administration and Disposal. Closure of these performance gaps will enable REMIS to become a more competent tool for life-cycle accountable asset management. Total cost has increased from \$10,400,000 to \$19,500,000 due to new requirements. The FY12 new requirements include the following. 1.) Office of the Secretary of Defense (OSD) mandates that REMIS interface with OACSIM's HQIIS using an automated bi-directional web exchange for near real-time interaction, rather than the original annual static submission. 2.) New enterprise level requirements mandates by the Corps Corporate Information Directorate force all system changes to go through a formal Test & Evaluation prior to release to production. 3.) Conversion of remaining data within REMIS, including Civil Works Real Property Assets, to conform to DoD Real Property Inventory Requirements (RPIR). 4.) Costs associated with postponement of the Training module development from FY11 to FY12 due to HQIIS requirement (item 1 above). 5.) The USACE Corporate Enterprise Architecture (CeA) mandates that the new graphical user interface be developed using a configurable, manageable programming protocol leading to the selection of the .NET family of programming languages. These development tasks and procedures to meet these requirements have already been, or are currently in the process of being, implemented, delaying some original tasks, including: 1) GIS capability, 2) Document Administration, 3) Timber Harvesting Module, and 4) Asset Disposal. The modernization process had revealed two (2) additional requirements to complete the current modernization project: 1) Digitalization of hard-copy data for the GIS feature, and 2) Contingencies for annual unplanned requirements. The requested additional funding is required to complete these tasks and to continue developing under the current OSD, OACSIM, and USACE mandates. The Real Estate Programs Office is preparing a proposal for requirements that were not addressed during the current modernization cycle, projected to begin in late FY 2013 or FY 2014. Total estimated cost for the current modernization project: \$19,500,000. Prior Years: \$6,900,000. FY 2011: \$3,500,000. FY2012: \$4,200,000. FY2013: \$4,900,000. Any future funding requests will be part of a new modernization five-year plan and project.

(2) P2: Corps of Engineers Programs and Project Management System – Corpswide (Continuing). This project represents scope and cost changes to the Corps of Engineers automated information management system, P2. The P2 project was completed and deployed in 2004. It was designed to support the business processes of Programs and Project Management for all districts, divisions, and the Corps headquarters. P2 currently uses two primary commercial off the shelf applications, which include Oracle Projects and Primavera software. There is also software which provides an interface between the two systems. Since deployment the system has experienced performance and reliability problems and is highly maintenance intensive. The Corps commissioned studies which resulted in the recommendation for an upgraded version of the system. Due to advances in commercial software it was found that with some additional programming Primavera could stand alone. This will simplify the system resulting in lower license fees, faster and more efficient response time, and greater system security. The user interface will be less complex resulting in greater productivity and provide a more useful tool. Project cost is increasing from \$29,945,000 to \$34,270,000. Cost increase is primarily due to the purchase of a new Continuance of Operation (COOP) server which protects the system from major failures, additional test and evaluation software, and new program management support tools. Total estimated cost: \$34,270,000. Prior Years: \$28,440,000. FY 2010: \$4,040,000. FY 2011: \$1,565,000. FY2012: \$225,000.

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(3) Electronic Document Management System (EDMS) - Corpswide (Continuing). Project involves purchasing and installing software for the Corps to implement a document management system and comply with Federal regulations. This document and records management initiative will establish policies, standards, and procedures to identify, classify, archive, preserve, and destroy documents. Total estimated cost: \$8,586,000. Prior Years: \$291,297. FY 2011: \$8,294,703.

(4) Army Corps of Engineers Information Technology (ACE-IT) Server Refresh (Hardware) - Corpswide (Continuing). Project includes purchasing hardware for the Corps enterprise information technology requirements over the next 5 years (technology refresh). The servers that are currently running the existing enterprise programs such as Program and Project Management System (P2), Corps of Engineers Financial Management System (CEFMS), and Operations and Management Business Information Link (OMBIL) are becoming obsolete and need to be replaced. In addition, servers will be purchased for emerging requirements such as the Enterprise Data Warehouse and, the Facilities and Equipment Management System (FEMS). Total estimated cost: \$20,000,000. FY 2011: \$5,800,000. FY 2012: \$4,000,000 Future Years: \$10,200,000.

(5) Army Corps of Engineers Information Technology (ACE-IT) Server Refresh (Software) – Corpswide (Continuing). Project includes purchasing software for the servers being purchased for the refresh of the Corps enterprise information technology requirements over the next 5 years (technology refresh). The servers that are currently running the existing enterprise programs such as Program and Project Management System (P2), Corps of Engineers Financial Management System (CEFMS), and Operations and Management Business Information Link (OMBIL) are becoming obsolete and need to be replaced. In addition, servers will be purchased for emerging requirements such as the Enterprise Data Warehouse and, the Facilities and Equipment Management System (FEMS). Total estimated cost: \$5,000,000. FY 2011: \$2,000,000. FY 2012: \$1,000,000. Future Years: \$2,000,000.

(6) USACE Enterprise Data Warehouse (EDW) - Corpswide (Continuing). The project involves development and implementation of the Enterprise Data Warehouse (EDW). The EDW provides a means for storing data from the various Corps systems in a standard format and a central location. The EDW supplements and will ultimately replace multiple legacy automated information system databases that provide only summary roll up reporting. These local systems provide analytical reporting solutions outside of the approved systems. The EDW will provide USACE leadership with an improved reporting capability, producing more comprehensive standardized analysis allowing for more informed decision-making. The EDW has attained a three-year authority to operate through the Army accreditation process. Since the inception of the EDW initiative the project has successfully completed a prototype, pilot, and limited production phase. Successful implementation of the EDW requires accurate analysis and re-design of USACE data structures. This enables the implementation of effective data sharing and data integration across USACE systems as well as with outside agencies. The EDW improves the Corps ability to monitor and report on the planning, budgeting and execution of projects across the organization, offering the USACE community increased functionality at a lower cost through the adoption of Enterprise information technology solutions. Total cost is increasing by \$4,000,000. The additional funding is needed to provide for further development of some existing repositories of highly shared data as well as some new projects to include, bringing data from the Facilities Equipment Maintenance System (FEMS) into the EDW system, building new repositories to enable the closing down of individual reporting programs ultimately saving costs of maintaining multiple reporting systems and development of dashboards for use in upward reporting. Total estimated cost: \$10,600,000. Prior Years: \$6,600,000. FY 2012: \$4,000,000.

(7) Test and Evaluation Program - Corpswide (Continuing). The USACE Test and Evaluation (T&E) program will centralize all automated information system application testing and technology research and evaluations. The test and evaluation program will be developed as the agency's "One-Stop" testing, evaluation, validation and verification authority for all information technology resources. The program will conduct testing of information technology hardware, commercial "Off-the-Shelf" software, and all enhancements to AIS legacy applications - including design, development, compatibility, interoperability, security, operational, regulatory compliance as well as product acceptance testing and verification. The program will be comprised of a complete in-house hardware and software infrastructure which creates a common operating picture (COE) for all test tools, reporting tools and verification and validation toolsets that will be used while conducting test operations. The program also creates all common business processes and procedures relative to the execution of testing operations - including test planning, test reporting, validation and verification of test results, data generation, media, and business processes relative to configuration management of AIS legacy applications and corporate data. Currently USACE tests

APPROPRIATION TITLE: Revolving Fund- Plant Replacement and Improvement Program (PRIP)

and evaluates prospective technology and software solutions through highly decentralized processes using a myriad of non-standard hardware, software and business processes. As a result, it is increasingly difficult for USACE to have transparency and any accuracy or accounting into the legacy application development process - the current development/test environment does not enable the agency to accurately align developmental efforts with strategic business objectives on an incremental basis. Total estimated cost: \$28,900,000. FY 2010: \$1,573,715. FY 2011: \$9,926,285. FY 2012: \$5,800,000. Future Years: \$11,600,000.

(8) USACE Learning Network (ULN), Corpswide (Continuing). The ULN is an Enterprise-wide Learning Management System. The system provides essential Corps of Engineers PROSPECT courses as web-based training. In addition, it enables on-line registration and payment for attendance and automates student reports and transcripts. It is estimated that the system will save the Corps approximately \$8 million in travel and per diem cost over the first five years of operation. The Initial estimated cost for the project has increased from \$3,600,000 to \$6,475,000. Initial estimates did not include development for future years. This increase will allow for continued development through FY 2014. Total Estimated Cost: \$6,475,000. Prior Years: \$3,725,000. FY 2011: \$750,000. FY 2012: \$2,000,000.

e. Tools, Office Furniture, and Equipment

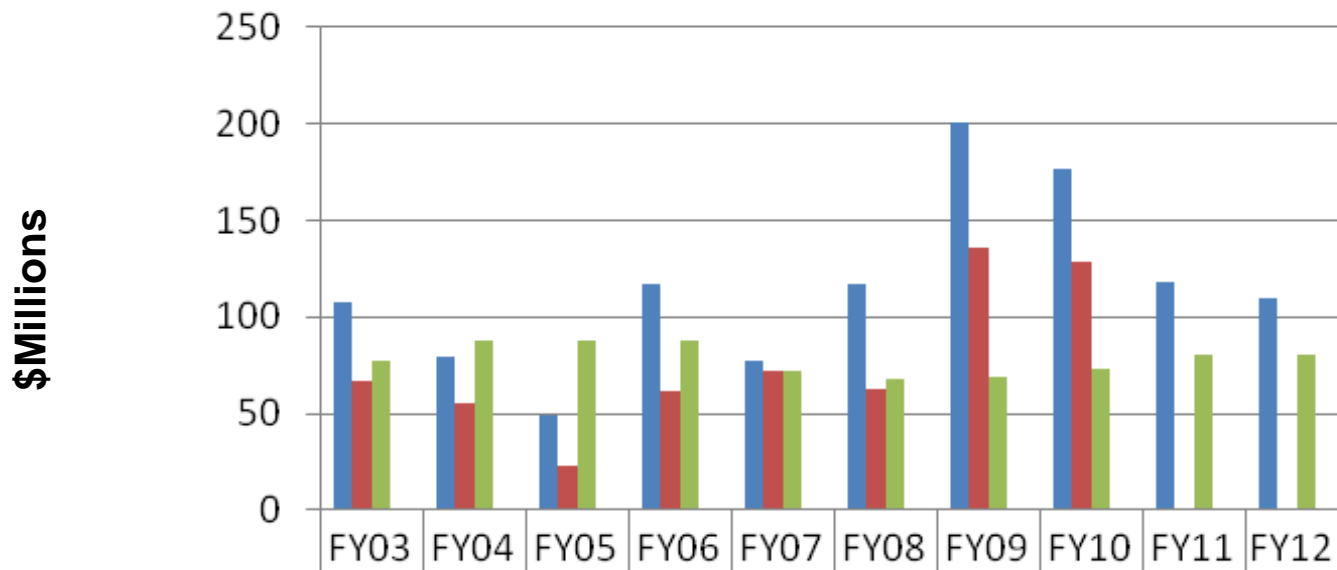
(1) Purchase Furniture, Seattle District (Continuing). The district office was scheduled to relocate within the Seattle area starting in FY 2010. The original estimate for this project was created in early 2008 without knowledge of the full scope of the project and location of the new office space. The estimate was to provide for standardized work stations and work areas. The order included 505 work stations. Estimated cost has since increased from \$3,775,000 to \$8,420,630. In 2009 ARRA funding was provided to GSA to build a new building at the Federal Center South (current location of existing building). GSA awarded the design-build contract in March 2010 and construction is ongoing. The estimate was updated to include total cost of the move to the newly constructed building, detailed costs for design and construction/movement/placement of furniture, workstations, radio rooms, Reservoir Control Center equipment, communication switches and cabling, and audio-visual equipment and control systems. Total estimated cost: \$8,420,630. FY 2011: \$200,000. FY 2012: \$8,220,630.

DIVISION/ DISTRICT	PRIP MINOR ITEMS, PROJECT DESCRIPTION	TOTAL ESTIMATED COST (\$000)	PRIOR FY (\$000)	FY 11 (\$000)	FY 12 (\$000)	Future Years (\$000)	Remarks
ERDC	COGNITIVE ECOLOGY FACILITY (CEF), ENGINEER RESEARCH AND DEVELOPMENT CENTER (ERDC), VICKSBURG MS	1,433	34	1,399			
LRN	EMERGENCY NAVIGATION LOCK CLOSURE CAISSON, NASHVILLE DISTRICT	3,300	3,256	44			
LRN	CONCRETE GRAVITY DAM	450	0	450			
MDC-LRB	2828 DB McCAULEY REPLACEMENT	25,000	0	0	25	24,975	Future Major Item.
MDC-LRL	2554 CRANE BARGE BROWN REPLACEMENT	20,106	96	0	15	19,995	Future Major Item.
MDC-LRP	2882 DECK CARGO BARGE	1,325	0	0	25	1,300	
MDC-MVK	2820 MVK DREDGE JADWIN PUMP REPLACEMENT 10-P-0022	4,100	2,650	1,450			
MDC-MVN	2623 SURVEYBOAT BRETON REPLACEMENT	1,896	21	10	15	1,850	
MDC-MVR	2685 MOTOR VESSEL QUAD CITIES REPLACEMENT	43,961	60	400	50	43,451	Future Major Item.
MDC-MVR	2707 CRANE PROCUREMENT FOR IWW 01-D-0101-40	3,276	3,265	11	0		
MDC-MVR	2772 CRANE BARGE HERCULES REPLACEMENT	610	0	0	10	600	
MDC-MVR	2808 MOTOR VESSEL MUSCATINE REPLACEMENT	9,560	0	20	10	9,530	Future Major Item.
MDC-MVS	2767 POTTER SYSTEMS UPGRADE 10-C-0019	2,300	1,975	325			
MDC-MVS	2769 POTTER DREDGE PUMP REPLACEMENT 10-P-0022	4,100	3,577	523			
MDC-MVS	2840 POTTER LADDER LENGTHENING	17,850	0	0	10	17,840	Future Major Item.
MDC-MVS	2783 BUOY BARGE 3 REPLACEMENT	600	1	545	50	4	
MDC-NAB	2794 NAB SURVEY VESSEL	3,036	1	0	15	3,020	
MDC-NWK	2729 TOWBOAT STEPHENSON REPL 09-C-0004	4,670	4,606	64			
MDC-NWP	2440 SURVEYBOAT RODOLF REPLACEMENT 08P0262 09P0051	3,206	2,927	279			
MDC-NWP	2441 SURVEYBOAT HICKSON REPLACEMENT 08P0262 09P0051	3,219	2,926	293			
MDC-NWP	2542 ESSAYONS DRAGHEAD AND JETTING SYSTEM IMPROVE	2,315	200	141	5	1,969	
MDC-NWP	2615 ESSAYONS HOPPER DIST SYSTEM 09-P-0116 09-P-0122	960	122	210	5	623	
MDC-NWP	2651 ESSAYONS ENGINE ROOM ICMS 07-C-0003 08 P 0063 09-P-0248	2,403	2,355	48	0		
MDC-NWP	2676 YAQUINA DRAGARM WINCHES 07-P-0266/0276/07-T-0066/70	1,804	1,611	194	0		
MDC-NWP	2726 YAQUINA SHIP SERVICE GENERATORS	3,032	1,634	776	433	189	
MDC-SAM	2791 SAM WORK BARGES (6) 10-C-0028	3,682	3,417	235	15	15	
MDC-SAM	2892 STOP LOG BARGES	3,600	0	0	25	3,575	
MDC-SAM	2893 HEAVY DECK BARGE	3,110	0	0	10	3,100	
MDC-SWL	2810 BIG RED REPLACEMENT	28,000	0	0	100	27,900	Future Major Item.

DIVISION/ DISTRICT	PRIP MINOR ITEMS, PROJECT DESCRIPTION	TOTAL ESTIMATED COST (\$000)	PRIOR FY (\$000)	FY 11 (\$000)	FY 12 (\$000)	Future Years (\$000)	Remarks
MDC-SWL	2889 CRANE PROCUREMENT	1,910	0	70	15	1,825	
MVP	CRANE REPLACEMENT AND CRANE BARGE LEONARD REINFORCEMENT, ST. PAUL DISTRICT	3,800	0	3,800			
MVR	ADDITION AND BETTERMENT CLOCK TOWER & ANNEX WINDOW REPLACEMENT, ROCK ISLAND ARSENAL	1,438	0	732	706		
MVR	CLOCK TOWER & ANNEX FIRE ALARM UPGRADE, ROCK ISLAND ARSENAL	871	58	813			
MVS	APPLIED RIVER ENGINEERING CENTER (AREC), ST. LOUIS DISTRICT	2,354	165	2,189			
MVS	ADDITION AND BETTERMENT TO SERVICE BLDG 8, ST. LOUIS DISTRICT	600	555	45			
NAP	CATERPILLAR LGP WIDE-TRACK BULLDOZER REPLACEMENT, PHILADELPHIA DISTRICT	900	300	300	300		
NWS	ACOUSTIC MULTI-BEAM SURVEY SYSTEM, SEATTLE DISTRICT	340	0	340			
NWW	DISTRICT OFFICE VOICE SYSTEM REPLACEMENT (VOIP)	678	0	678			
SAW	REPLACEMENT OF SURVEY BOAT GILLETTE, WILMINGTON DISTRICT	2,100	0	2,100			
SPK	REGULATORY DIVISION RELOCATION	450	0	450			
SWG	M/V BLACKBURN REPLACEMENT, GALVESTON DISTRICT	876	862	14			
SWG	CONVERT JET DRIVES TO PROPELLER DRIVEN - DE LA HUNT	750	550	0	200		
SWG	DEMOLISH AND REPLACEMENT - PORT ARTHUR OFFICE BLDG	413	0	0	413		
ULA	USACE LOGISTICS AGENCY (ULA) RELOCATION, MILLINGTON, TN	3,392	0	3,392			
TOTAL:		223,776	37,224	22,339	2,452	161,761	

Items identified as future major items (beyond 2012) are projects that are receiving preliminary design funds.

PRIP Trend



Approved Program	108	79	49	117	77	117	201	177	118	110
Actual Obligation	67	55	23	62	72	63	136	128		
Revenue **	77	88	88	88	72	68	69	73	80	80
% Obligated	62%	70%	48%	53%	93%	54%	68%	72%		

** Revenue for FY11 and 12 is an estimate that takes into account the previous years income, the 1st quarter income report of FY11 and the expected increase in income that is a result of the Finance and Accounting policy changes that are described on the following page entitled “PRIP Trend and Current Status”. Typically, Income during the year is fairly consistent from one quarter to the next with the exception of 4th quarter where income is usually higher due to dredging schedules and end of year adjustments.

PRIP FUND STATUS as of February 7, 2011

PRIP FY 2010	ACTUAL (\$000)
Balance as of 1 Oct 09:	\$204,173
Income:	
Recovery of PY	490
Depreciation	45,703
Plant Increment	27,645
Total Income:	73,838
Expenses:	
Obligations	128,236
End of Year Adjustment	2,118
Total Expenses:	130,354
End of Year Balance	147,657
Insurance Reserve	38,000
Available to Allocate in FY11	\$109,657

PRIP PROJECTED	FY 2011 (\$000)	FY 2012 (\$000)
Beginning Fund Balance:	\$147,657	\$109,382
Less Insurance Reserve	38,000	38,000
Less Obligation Plan for Projects	118,275	109,694
Plus Projected Income	80,000	80,000
Available to Allocate FY XX:	71,382	41,688
Plus Insurance Reserve	38,000	38,000
Ending Balance:	\$109,382	\$79,688

PRIP Trend and Current Status

- The trend in the PRIP over the last three years (as can be seen in the PRIP Trend chart) shows Program requirements increasing but income declining. As a result the fund balance has been declining. During FY 2010 our Finance and Accounting (F&A) office reviewed procedures for collecting income to determine why it has been declining. The analysis resulted in the F&A office implementing policy changes that will increase income by providing more consistent accounting and reporting of Revolving Fund assets, ensure more timely repayment of PRIP financing and provide more equitable assessment of plant increment charges. In addition, our Resource Management office is in the process of hiring a contractor to perform a study of the PRIP account that will determine the following (last study was done in 1993): 1) The proper funding level that should be maintained in the PRIP insurance fund. 2) The amount of money that should be maintained (undistributed) in the account in order to finance major spikes in long-lived assets. 3) Determine whether the current method for developing plant increment rates (consumer price index) provides sufficient revenue to replace an asset at the end of its useful life.
- Another factor that has contributed to the decline in the fund has been increased workload consisting mostly of floating plant approaching the end of useful life and requiring upgrades and replacements. It is expected that approximately 70% of the continuing floating plant projects in FY 2012 will be completed, reducing the overall continuing project burden for floating plant by around \$45M in FY 2013. This in combination with the above mentioned income increasing measures implemented by the F&A and floating plant being put back in service (and generating income) after major upgrades, will help to stabilize the PRIP fund and bring the available balance back to healthier levels.
- That said, the Corps has been assessing the DoD requirement that Corps facilities comply with DoD Minimum Antiterrorism Standards for Buildings (per UFC 4-010-01, dated 8 October 2003). MSCs and FOAs with primarily Civil Works missions are requesting the use of PRIP funds to either upgrade or relocate to fulfill the DoD requirement. Preliminary estimates show that this requirement will put a substantial burden on the fund. In addition, there are still some large floating plant upgrades/replacements that will be coming in future years.
- The following steps are being taken to assure our ability to meet the future legitimate needs of the agency: 1) Quarterly meetings with the Headquarters Prioritization Group will be held to review project execution and the fund status. 2) Collection of increment and depreciation of plant will be reviewed to ensure that all income is collected according to the regulations and adjustments to the increment charge will be considered if it is found that income is not sufficient. 3) New reporting requirements are being implemented to encourage better planning and prioritization of projects.

National Programs

O&M JUSTIFICATION SHEET

FY 2012 INSPECTION OF COMPLETED WORKS PROGRAM

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Inspection of Completed Works

AUTHORIZATION: Section 221 of the Flood Control Act of 1970, as amended (84 Stat. 1831, 42 U.S.C. 1962d-5b), requires that a written agreement be executed between the Secretary of the Army and the non-Federal sponsor to identify the "items of local cooperation" for Corps projects, including operation and maintenance requirements. It also authorizes the Corps to "undertake performance of those items of cooperation necessary to the functioning of the project for its purposes, if the Corps has first notified the non-Federal interest of its failure to perform the terms of its agreement and has given such interest a reasonable time after such notification to so perform." To determine whether the non-Federal sponsor is performing as it has agreed, the Corps undertakes inspections of completed projects. Engineer Regulation 500-1-1, Emergency Employment of Army and Other Resources, Civil Emergency Management Program, Chapter 5, Rehabilitation and Inspection Program in conjunction with related policy guidance memoranda for the Corps Levee Safety Program establishes the policy for the inspection of Federal flood risk management projects which have non-Federal sponsors responsible for operation, maintenance, repair, replacement, and rehabilitation as specified in formal agreements based on Section 221 of the Flood Control Act of 1970 or other legislation.

LOCATION AND DESCRIPTION: The Corps civil works program includes approximately 11,750 miles of levees and floodwall systems, 383 reservoirs, and more than 90 storm damage reduction projects along 240 miles of the nation's 2,700 miles of shoreline. These account for a major portion of the projects protecting communities across the nation. Upon completion, and with the exception of reservoirs, most of the infrastructure built under this program is transferred to the sponsoring cities, towns, and special use districts to own and operate the projects. Many of these structures are adjacent to highly urbanized areas, and all of them require continued maintenance (either by the Federal government or Non-federal interests) after construction in order to ensure the project will function as intended to prevent loss of life and catastrophic damages; as well as preserve the value of the Federal investment; and to encourage non-Federal sponsors to bear responsibility for their own protection.

BUDGET AMOUNT FOR FY2011: \$ 25,463 (millions)

BUDGET FOR FY2012: M: \$ 0 O: \$ 26,478 T: \$ 26,478 (millions)

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

FRM: \$ 26,478,000 - See attached table for breakdown by state.

The Inspection of Completed Works activities encompass all federally constructed and primarily locally maintained flood risk reduction projects that meet the Corps condition requirements. In 2006, the U.S. Army Corps of Engineers created its Levee Safety Program with the mission to assess the integrity and viability of levees and recommend courses of action to make sure that levee systems do not present unacceptable risks to the public, property and environment. The Inspection of Completed Works Program is now guided by the Levee Safety Program. One of the main activities includes inspections of Federally authorized projects operated and maintained by a non-Federal sponsor. These inspections determine if the project will perform as expected; identify deficiencies or areas which need monitoring or immediate repair; to identify any changes over time; and collect information in order to be able to make informed decisions about future actions. Other activities will include updating information in the National Levee Database; screening levees to rank them in order of risk; conducting pre-storm inspections of Federally authorized hurricane shore protection systems; conducting pre-inspection preparation and post inspection reporting and notification requirements; coordinating Levee Safety Program efforts with public sponsors or stakeholders; reviewing sponsor proposed alterations, improvements, excavations or construction which are in accordance with Corps policy and guidance for such proposals i.e. Section 208/408 proposals; and updating project operation and maintenance manuals.

OTHER INFORMATION: Coordination between the Corps and other Federal, state, and local agencies is essential for proper accomplishment of this program. In addition to satisfying Corps' requirements, the improved inspection results will be made available on the National Levee Database for use by local, State, and other Federal agencies responsible for state and local Levee Safety Programs.

Division: National Program **District:** National Program **Project Name:** Inspection of Completed Works

STATE	AMOUNT
Inspection Of Completed Works, AK	194,000
Inspection Of Completed Works, AL	30,000
Inspection Of Completed Works, AR	397,000
Inspection Of Completed Works, AZ	87,000
Inspection Of Completed Works, CA	3,854,000
Inspection Of Completed Works, CO	260,000
Inspection Of Completed Works, CT	368,000
Inspection Of Completed Works, DC	154,000
Inspection Of Completed Works, DE	15,000
Inspection Of Completed Works, FL	1,350,000
Inspection Of Completed Works, GA	141,000
Inspection Of Completed Works, HI	984,000
Inspection Of Completed Works, IA	552,000
Inspection Of Completed Works, ID	312,000
Inspection Of Completed Works, IL	1,945,000
Inspection Of Completed Works, IN	645,000
Inspection Of Completed Works, KS	339,000
Inspection Of Completed Works, KY	865,000
Inspection Of Completed Works, LA	814,000
Inspection Of Completed Works, MA	437,000
Inspection Of Completed Works, MD	171,000
Inspection Of Completed Works, ME	117,000
Inspection Of Completed Works, MI	200,000
Inspection Of Completed Works, MN	377,000
Inspection Of Completed Works, MO	2,255,000
Inspection Of Completed Works, MS	70,000
Inspection Of Completed Works, MT	200,000
Inspection Of Completed Works, NC	261,000
Inspection Of Completed Works, ND	262,000
Inspection Of Completed Works, NE	345,000
Inspection Of Completed Works, NH	91,000
Inspection Of Completed Works, NJ	238,000
Inspection Of Completed Works, NM	843,000
Inspection Of Completed Works, NV	185,000
Inspection Of Completed Works, NY	959,000
Inspection Of Completed Works, OH	610,000
Inspection Of Completed Works, OK	201,000
Inspection Of Completed Works, OR	575,000
Inspection Of Completed Works, PA	1,101,000
Inspection Of Completed Works, RI	90,000
Inspection Of Completed Works, SC	65,000
Inspection Of Completed Works, SD	189,000
Inspection Of Completed Works, TN	34,000
Inspection Of Completed Works, TX	1,343,000
Inspection Of Completed Works, UT	31,000
Inspection Of Completed Works, VA	461,000
Inspection Of Completed Works, VT	79,000
Inspection Of Completed Works, WA	730,000
Inspection Of Completed Works, WI	69,000
Inspection Of Completed Works, WV	528,000
Inspection Of Completed Works, WY	55,000
TOTAL	26,478,000

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Project Condition Surveys

AUTHORIZATION: Public Law 85-480, approved July 2, 1958 authorizes the Chief of Engineers to publish information, including condition surveys, that may be of value to the general public.

LOCATION AND DESCRIPTION: This national program consists of performing hydrographic surveys for Federally maintained navigation projects on a state-by-state basis. Hydrographic surveys are conducted for navigation channels, inlets and anchorages within, approaching and surrounding states.

PRESIDENT'S BUDGET REQUEST FOR FY 2011: \$18,440,000

BUDGET FOR FY 2012: M: \$0 O: \$17,792,000 T: \$17,792,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

Nav: \$17,792,000 - Hydrographic surveys of Federal navigation channels are planned for Fiscal Year 2012 in order to disseminate the navigation channel condition for users of the waterways. This information is also used in the decision making process for channel maintenance operations. The selection of which projects to survey and scheduling of surveys is based upon channel usage, shoaling rates and maintenance dredging schedules. The need for Project Condition Surveys (PCS) is based primarily upon when that project was last surveyed. The surveys are generally conducted on a rotational basis, taking into account the expected sedimentation rates and historic maintenance. This generally includes projects that do not routinely receive O&M appropriations and that are not regularly maintained. For those projects scheduled to be dredged in the budget year, PCS for that segment of the project is not requested since that project will include pre- and post-dredging surveys. Another consideration in the use of funding for PCS is the ability to respond to unanticipated needs, including concerns raised by the U.S. Coast Guard, local harbor masters, or other agencies regarding projects that have become shoaled as a result of severe storms and/or abnormal deposition rates that may have compromised safe navigation. See table below in Other Information for breakdown by state.

FRM: \$ N/A

Rec: \$ N/A

Hydro: \$ N/A

ES: \$ N/A

WS: \$ N/A

National Program Name: Project Condition Surveys

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

OTHER INFORMATION:

FY 2012 PROJECT CONDITION SURVEYS

PROJECT CONDITION SURVEYS, AK	\$ 500,000
PROJECT CONDITION SURVEYS, AL	\$ 100,000
PROJECT CONDITION SURVEYS, AR	\$ 8,000
PROJECT CONDITION SURVEYS, CA	\$ 1,710,000
PROJECT CONDITION SURVEYS, CT	\$ 850,000
PROJECT CONDITION SURVEYS, DC	\$ 40,000
PROJECT CONDITION SURVEYS, DE	\$ 105,000
PROJECT CONDITION SURVEYS, FL	\$ 1,575,000
PROJECT CONDITION SURVEYS, GA	\$ 149,000
PROJECT CONDITION SURVEYS, HI	\$ 931,000
PROJECT CONDITION SURVEYS, IL	\$ 111,000
PROJECT CONDITION SURVEYS, IN	\$ 185,000
PROJECT CONDITION SURVEYS, KY	\$ 7,000
PROJECT CONDITION SURVEYS, LA	\$ 60,000
PROJECT CONDITION SURVEYS, MA	\$ 1,100,000
PROJECT CONDITION SURVEYS, MD	\$ 500,000
PROJECT CONDITION SURVEYS, ME	\$ 800,000
PROJECT CONDITION SURVEYS, MI	\$ 600,000
PROJECT CONDITION SURVEYS, MN	\$ 86,000
PROJECT CONDITION SURVEYS, MO	\$ 14,000
PROJECT CONDITION SURVEYS, MS	\$ 82,000
PROJECT CONDITION SURVEYS, NC	\$ 700,000
PROJECT CONDITION SURVEYS, NH	\$ 250,000
PROJECT CONDITION SURVEYS, NJ	\$ 1,575,000
PROJECT CONDITION SURVEYS, NY	\$ 1,990,000
PROJECT CONDITION SURVEYS, OH	\$ 305,000
PROJECT CONDITION SURVEYS, OR	\$ 200,000
PROJECT CONDITION SURVEYS, PA	\$ 120,000
PROJECT CONDITION SURVEYS, RI	\$ 450,000
PROJECT CONDITION SURVEYS, SC	\$ 875,000
PROJECT CONDITION SURVEYS, TN	\$ 8,000
PROJECT CONDITION SURVEYS, TX	\$ 100,000
PROJECT CONDITION SURVEYS, VA	\$ 902,000
PROJECT CONDITION SURVEYS, WA	\$ 516,000
PROJECT CONDITION SURVEYS, WI	\$ 288,000
TOTAL	\$17,792,000

National Program Name: Project Condition Surveys

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Removal of Aquatic Growth

AUTHORIZATION: River and Harbor Act of 1899, as amended.

LOCATION AND DESCRIPTION: This national program provides annual mission essential prevention, control and removal of nuisance aquatic vegetation impacting, obstructing or threatening navigation in the Federal navigation channels in the Gulf Coast. This includes several hundred miles of channel with approximately 675,000 surface acres. Operational priority is given to controlling floating nuisance vegetation in order to keep the principal navigable waterways and locks open for navigation. Additionally, this vegetation displaces native species, changing community structure and altering ecological functions potentially impacting threatened and endangered species including the Everglades Snail Kite, Okeechobee gourd and the wood stork. These invasive species also interfere with operation and maintenance of levees and canals and compromise the integrity of the navigation and flood control structures.

PRESIDENT'S BUDGET REQUEST FOR FY 2011: \$4,910,000

BUDGET FOR FY 2012: M: \$3,950,000 O: \$0 T: \$3,950,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2012:

Nav: \$3,950,000 - The program consists of maintenance control operations to control vegetation in the Gulf Coast, including St. Johns, Kissimmee, Withlatchoochee, Crystal and Ocklawaha Rivers in addition to the Okeechobee Waterway and Lake Okeechobee. Maintenance control is defined as keeping target vegetation at the lowest feasible levels to protect navigation interests. Anticipate controlling approximately 15,000 – 17,000 acres of vegetation in FY 2012. In addition the Corps will conduct educational outreach activities for our customers, conduct pre- and post-treatment surveys, ensure safety of our staff and the public and conduct an environmentally compatible program. The primary purpose of these operations is to control floating nuisance vegetation in order to keep the principal navigable waterways and locks open for navigation in the listed Federal Navigation projects. Coordination between the Corps and other Federal, state, and local agencies is conducted on a continual basis. The Florida Wildlife and Conservation Commission is the principal state agency involved in project coordination. See table below in Other Information for breakdown by state.

FRM: \$ N/A

Rec: \$ N/A

Hydro: \$ N/A

ES: \$ N/A

WS: \$ N/A

OTHER INFORMATION:

FY 2012 REMOVAL OF AQUATIC GROWTH

REMOVAL OF AQUATIC GROWTH, FL	\$ 3,750,000
REMOVAL OF AQUATIC GROWTH, LA	\$ 200,000
TOTAL	\$ 3, 950,000

National Program Name: Removal of Aquatic Growth

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Surveillance of Northern Boundary Waters

AUTHORIZATION: Boundary Waters Treaty of 1909.

LOCATION AND DESCRIPTION: The main activities conducted under the Surveillance of Northern Boundary Waters Program is the support of the Boundary Waters Treaty of 1909 including technical and secretarial support of the International Joint Commission (IJC) and its Boards of Control, Committees, and various study boards. Activities are centered supporting the principles and mechanisms to help resolve disputes and to prevent future ones, primarily those concerning water quantity and water quality along the boundary between Canada and the United States.

BUDGET AMOUNT FOR FY2011: \$ 9,478 (millions)

BUDGET FOR FY2012: M: \$ 0 O: \$ 12.897 T: \$ 12.897 (millions)

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY-2011:

FRM: \$ 12,897,000 - See attached table for breakdown by state.

Specific LRD activities within the Great Lakes region include technical support for the Coordinating Committee on Great Lakes Basic Hydraulic and Hydrologic Data; weekly regulation of Lake Ontario; lake level forecasting on a weekly and monthly basis; monitoring and oversight of the Lake Erie ice boom, Niagara Control Structure, and Niagara Falls flows; connecting channel depths forecasts bi-weekly; continuous monitoring of basin conditions; collection and dissemination of basin data; monthly regulation of Lake Superior; hydraulic modeling of the connecting channels and impact analyses due to dredging, construction or other projects; derivation of stage-discharge relationships for the connecting channels; computation of official outflows from the Great Lakes; computation of net basin supplies for the Great Lakes; water level gauging of the connecting channels; hydraulic discharge measurements and hydropower inspections to support treaty requirements and water use agreements; and, coastal process monitoring.

All of the above missions are ongoing areas of work. Upcoming efforts include: continued support for the International Upper Great Lakes Study which is looking at Lake Superior regulation; implementing adaptive management and supporting development of a new regulation plan for Lake Ontario; continued improvements to (and documentation of) forecasting operations, inclusion of new data sets and analyses techniques; continued improvements to hydraulic models including the addition of ice and weed retardation; and, more intensive monitoring of daily changes in basin hydro-meteorologic parameters.

MVD activities center around the 1925 Lake of the Woods Convention and Protocol, and the 1938 Rainy Lake Convention between the U.S. and Canada including International Lake level outflow compliance monitoring and assist in transboundary dispute resolution. Monitor & approve international apportionment of water between Saskatchewan, North Dakota & Manitoba & monitor flood operations in 1989 Treaty between U.S. & Canada for water supply & flood control in Souris River basin & assist transboundary dispute resolution.

NWD activities include funding District work associated with IJC activities for the Kootenay Lake Board of Control and the Osoyoos Lake Board of Control. Work includes preparation of Annual Reports, monitoring Kootenay Lake and basin conditions for compliance with the 1938 IJC Order on Kootenay Lake, preparing for and attending Board and public meetings, and responding to miscellaneous issues and questions raised by the public, agencies, the Boards, and the IJC. A multi-year study is addressing technical, political, legal, environmental and societal issues, and trade-off analyses that will support a recommendation by the U.S. Entity to the State Department before 2014 as to whether the Columbia River Treaty should be continued, modified, or terminated after Sept. 2024.

OTHER INFORMATION:

Many stakeholders exist in the basin and are regularly served by these missions including: commercial navigation (i.e. Lake Carriers Association); hydropower production; recreational boating; shoreline property owners; academic and research institutions; other Federal agencies; state and local agencies; non-governmental organizations; environmental interest groups; and private citizen groups.

FY 2010 SURVEILLANCE OF NORTHERN BOUNDARY WATERS PROGRAM	
STATE	AMOUNT
Surveillance of Northern Boundary Waters, IL	689,000
Surveillance of Northern Boundary Waters, IN	129,000
Surveillance of Northern Boundary Waters, ME	20,000
Surveillance of Northern Boundary Waters, MI	2,576,000
Surveillance of Northern Boundary Waters, MN	452,000
Surveillance of Northern Boundary Waters, ND	28,000
Surveillance of Northern Boundary Waters, NY	642,000
Surveillance of Northern Boundary Waters, OH	270,000
Surveillance of Northern Boundary Waters, OR	7,400,000
Surveillance of Northern Boundary Waters, PA	112,000
Surveillance of Northern Boundary Waters, WA	55,000
Surveillance of Northern Boundary Waters, WI	524,000
TOTAL	12,897,000

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Scheduling of Reservoir Operations

AUTHORIZATION: Section 7 of the Flood Control Act of 1944 (as amended)

LOCATION AND DESCRIPTION: Funding provided for Nation-wide program to facilitate and coordinate the operations of Federal and non-Federal dams for which there is a Federal interest and investment in providing dedicated flood space.

BUDGET AMOUNT FOR FY2011: \$ 7.266 (millions)

BUDGET FOR FY2012: M: \$ 0.817 O: \$ 6.267 T: \$ 7.084 (millions)

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY-2011:

FRM: \$ 7,084,000 - See attached table for breakdown by State.

NAD: Provide reservoir regulation instructions to regulate Savage River Dam, which is owned by Upper Potomac River Commission and Stevenson Dam, owned by the Commonwealth of PA.

NWD: Funds the Districts' portions of Division Water Management (Reservoir Control Center) budget; water control data collection; the portion of the total USGS Cooperative Stream gage Program which supports our eleven Bureau of Reclamation projects; and the District's daily Water Management activities in support of Bureau of Reclamation projects. This includes all aspects of daily operations within Division Water Management. Funding to the USGS Cooperative Stream gage Program maintains only those stream gages necessary for scheduling the release of flood control storage from Bureau of Reclamation projects. Of the twenty-nine multipurpose reservoirs within the District's area of responsibility, eleven are Bureau of Reclamation projects. These projects require District Water Management to develop and maintain water control plans; direct flood control operations; prepare monthly summary reports (R0168's); ensure daily review of stream gages; review and comment on Bureau of Reclamation annual operating plans for use of conservation storage; as well as review, comment and process deviations and manual-change requests through Division Water Management.

SPD: Funding supports typical activities which include data collection efforts and coordination for operational decisions, especially for flood releases, Water Control Manual updates, emergency and planned deviation requests, environmental reporting and coordination under NEPA and ESA, and other activities associated with safe operation of Section 7 dams.

SWD: Operation and regulation of non-USACE owned Dams, including labor, gate operations, reservoir control, data collection, administration costs, analyses, and travel associated with managing these projects. Also critical routine maintenance of stream gauge systems.

SAD: Provides for continued water management oversight and monitoring of project water control plans for the Four Rivers Basin Project and the Portugues and Bucana Projects.

OTHER INFORMATION: None

Division: National Program District: National Program Project Name: Scheduling of Reservoir Operations

FY 2011 SCHEDULING OF RESERVOIR OPERATIONS PROGRAM	
ITEM	AMOUNT
Scheduling of Reservoir Operations, AZ	48,000
Scheduling of Reservoir Operations, CA	1,648,000
Scheduling of Reservoir Operations, CO	740,000
Scheduling of Reservoir Operations, FL	32,000
Scheduling of Reservoir Operations, ID	514,000
Scheduling of Reservoir Operations, KS	150,000
Scheduling of Reservoir Operations, MD	47,000
Scheduling of Reservoir Operations, MO	400,000
Scheduling of Reservoir Operations, MT	147,000
Scheduling of Reservoir Operations, ND	137,000
Scheduling of Reservoir Operations, NM	548,000
Scheduling of Reservoir Operations, OK	1,000,000
Scheduling of Reservoir Operations, OR	95,000
Scheduling of Reservoir Operations, PA	46,000
Scheduling of Reservoir Operations, SD	84,000
Scheduling of Reservoir Operations, TX	242,000
Scheduling of Reservoir Operations, UT	642,000
Scheduling of Reservoir Operations, WA	453,000
Scheduling of Reservoir Operations, WY	111,000
TOTAL	7,084,000

REMAINING ITEMS

INVESTIGATIONS

Appropriation Title: Investigations – Fiscal Year 2012

Access to Water Resource Data

FINANCIAL DATA:

President's Budget for FY 2011	\$750,000
Allocation Requested for FY 2012	\$350,000
Change in FY 2012 from FY 2011	-\$400,000

AUTHORIZATION: Water Resources Development Act 2007; Section 2017.

JUSTIFICATION: The U.S. Army Corps of Engineers (USACE) Civil Works Strategic Plan presents a bold initiative for the USACE to manage our Nation's public water resources in collaboration with others through a watershed approach. The watershed approach recognizes that physical, chemical, and biological processes are intertwined and must be managed in an integrated manner. The USACE advocates a holistic view to sustainable water resources solutions in partnership with other Federal agencies, Tribes, State and local governments, and non-governmental organizations. America faces real water challenges — such as deteriorating infrastructure, increasing demands for water resources functions, competing water uses, and serious environmental challenges — in a climate of diminishing fiscal resources and fragmented responsibilities. Successful implementation of these strategic goals requires that the USACE provide access to water resources data and related water quality data to the public and all stakeholders for integrated water resources decision making.

Funds are requested to implement “Water Quality Data Management Implementation Plan” which calls for the Development of standard business processes, procedures and database models to manage water quality and quantity data generated by the full range of Corps water resources activities in conjunction with EPA, USGS and NOAA Water Control and Water Quality Programs. This may include water quality/quantity information associated with stream gages, water quality gages and other monitoring devices and water resources model and analytical tool output. These data include variables such as precipitation, water chemistry, temperature, evaporation, sedimentation, biological and habitat data, riverine discharges and stages, reservoir storage, inflows and outflow. This will include developing QA/QC processes and criteria for collected data. Water quantity and water quality data will be made available to the public through a standard web interface in a downloadable format as soon as quality assurance/quality control has been conducted by the USACE.

PROPOSED ACTIVITIES FOR FY 2012:

- 1) Continue to provide public access to Water Control Data and publish standard operating procedures for Districts to follow in managing their water quality data.
- 2) Develop policy and guidance regarding public access to Corps water quality and water management data.
- 3) Make data on the permits issued under the authority of the USACE (Clean Water Act and Rivers and Harbors Act) available to the public
- 4) Coordinate with Other Federal Agencies and solicit feedback on management and implementation strategy.
- 5) Develop tools and processes for making it easier to pull water control data into a central database.
- 6) Develop long term strategy and funding needed to sustain public access to USACE Water Resources.

FY 2011 ACCOMPLISHMENTS:

- 1) Published District Water Control Data into a single database structure allowing for easy access by public
- 2) Executed survey of District offices to capture current Water Control/Quality Management Activities
- 3) Finalized “Water Quality Data Management Implementation Plan”
- 4) Working with a few Districts implemented pilot projects as defined in Water Quality Management Plan

APPROPRIATION TITLE: Investigations -- Fiscal Year 2012

Coordination Studies With Other Agencies

Committee on the Marine Transportation System

SUMMARIZED FINANCIAL DATA:

President's Budget for FY 2011	100,000
Allocation Requested for FY 2012	100,000
Change in FY 2012 from FY 2011	0

AUTHORIZATION: Established as directed by the President in the *Ocean Action Plan – The Administration's Response to the U.S. Commission on Ocean Policy* – 17 December 2004.

JUSTIFICATION: The Committee on the Marine Transportation System (CMTS) was elevated to an interagency Cabinet-level committee by the President's Ocean Action Plan, December 2004. The CMTS held its first meeting in July 2005 and continues to meet 2-3 times per year. The Assistant Secretary of the Army (Civil Works) has been named as the Department of Defense (DOD) representative to the CMTS. The Chief of Engineers was selected to be the initial chair of the CMTS Coordinating Board, which advises and implements directives of the CMTS. An interagency Executive Secretariat supports the day to day activities of the CMTS on behalf of the Coordinating Board. The Corps is providing a full-time GS-15 liaison to the CMTS Executive Secretariat. This position reports to the Chief of Operations, HQUSACE, and HQ Operations has had the lead in CMTS coordination. The Corps has also been tasked by the CMTS to lead an interagency team to conduct an Assessment of the Current and Future State of the U.S. Marine Transportation System. With support from the Deputy Commanding General for Civil and Emergency Operations, this Assessment effort was redirected into a new action team to form a consolidated CMTS response to the National Ocean Policy Task Force Report. FY 12 funds will be used to continue this effort and to support the DOD share of other initiatives requested by the Committee, including MTS Data and Information Portal, and MTS R&D Needs. The need to support CMTS activities will continue annually with increased funding in future years as the Corps assumes the leadership role of the Ocean Policy Response Team. Dedicated funding to support Corps participation in the CMTS is essential if the Corps and DOD are to be full participants with other Cabinet Departments and agencies in Committee activities and initiatives. Corps participation in CMTS is a priority for the ASA(CW), the Chief of Engineers and the Deputy Commanding General for Civil and Emergency Operations.

PROPOSED ACTIVITIES FOR FY 2012:

- Lead the Integrated Action Team for CMTS Response to the National Ocean Policy Task Force Report.
- Co-lead the Integrated Action Team for MTS R&D Needs.
- Coordinate with other Departments and agencies participating in CMTS and provide support for studies and initiatives requested by the Cabinet-level CMTS.

ACCOMPLISHMENTS IN FY 2011: Launched new Integrated Action Team for a consolidated CMTS response to the National Ocean Policy Task Force Report. Supported senior leaders and ASA(CW) participation in CMTS cabinet-level and Coordinating Board meetings and activities. Participated in interagency working groups and reviews.

APPROPRIATION TITLE: Investigations, Fiscal Year 2012

1. Surveys

Coordination With Other Federal Agencies, State, and Non-Federal Interest Other Coordination Programs

The CALFED request is \$100,000, which is a portion of the CALFED coordination funds cited in section 103(f)(4)(A) of PL 108-361, the CALFED Act. The funds will be used to continue program support, coordination, and USACE representation efforts in the Federal and State CALFED process in Fiscal Year 2012. The CALFED Record of Decision named the Corps and State of California as implementation co-managers of the CALFED Levee System Integrity program. As stated in section 103(f)(4)(A) of PL 108-361, the CALFED Act, the Corps requests funds for program management, oversight, and coordination. Activities stated in the Act include: program support; program-wide tracking of schedules, finances, and performance; multi-agency oversight and coordination of program activities to ensure program balance and integration, development of interagency cross-cut budgets and a comprehensive finance plan to allocate costs in accordance with the Record of Decision; coordination of public outreach and involvement, including tribal, environmental justice, and public advisory activities in accordance with the Federal Advisory Committee Act; and development of annual reports.

APPROPRIATION TITLE: Investigations, FY 2012

1. SURVEYS

e. Cooperation with Other Federal Agencies, States, and Non-Federal Interests

(5) Chesapeake Bay Program. The amount of \$75,000 is requested to continue, increase, and invigorate activities initiated under Special Investigations. The Chesapeake Bay Program (CBP) is an interagency program, initiated by the US Environmental Protection Agency (EPA), for the protection and restoration of the bay's natural resources. These natural resources have tremendous environmental and economic significance to the northeast region and to the Nation. Following extensive Corps of Engineers investigations and EPA studies in the 1970's and early 1980's, it became increasingly clear that the Chesapeake Bay as a system was under intense pressure from development and overuse and was undergoing degradation in water quality, living resources and other ecological indicators. With the funds requested, the Baltimore District will continue participation and provide leadership involvement in the CBP Implementation Committee; the Federal Agencies Subcommittee; the Living Resources, Monitoring, Modeling and Toxics Subcommittee; and numerous workgroups addressing various subjects such as regional sediment management, wetlands, submerged aquatic vegetation, and land stewardship.

ASA (CW) was a signatory on a Special Tributary Strategy for Federal Lands in the District of Columbia agreement that commits the Corps to develop stormwater pollution prevention and nutrient management plans. The Baltimore District will play a key role on this Special Tributary Strategy as well as initiate activities to enhance stewardship of Corps-owned land within the Bay watershed. Many of these actions affect Corps authorized missions in the Chesapeake Bay.

The District participated in development of Executive Order (E.O.) 13508: Chesapeake Bay Protection and Restoration, signed by President Obama on 12 May 2009, which uses the Chesapeake Bay as a pilot for other "national treasures". The District is also intimately involved in the Federal Leadership Committee for the Chesapeake Bay, Agency Action reports in support of the E.O., and on Goal Implementation Teams. All of these efforts require extensive consultation and collaboration to achieve successful shared leadership, planning, accountability, and restoration of the largest estuary in the United States of America.

Coordination Studies With Other Agencies

Other Coordination Programs (Continued)

(c) The **Coordination with Other Water Resources Agencies** The Budget amount is \$200,000. This account provides funds to enable coordination with other Federal agencies. These include cooperation with the Department of Agriculture (USDA) is under the Watershed Protection and Flood Prevention Act of 1954 (Section 5 of PL 566-83), as amended; the Flood Control Act of December 22, 1944 (Section 1 of PL 534-78), as amended; and the National Environmental Policy Act of 1969 (PL 91-190). Executive Order No. 10913, dated 18 January 1961, requires that cognizance be taken of constructed and contemplated upstream and downstream USDA works, and that plans be submitted to the Secretary of the Army for review and comment prior to their transmission to the Congress through the President. As the agency responsible for the flood control features of basin program, the Corps of Engineers must provide the Department of Agriculture with information on proposed Corps projects, including their effect on contemplated watershed programs. The Corps is also required by Section 102 (2)(c) of the National Environmental Policy Act of 1969 to review the environmental impacts that would result from installation of USDA project features. Cooperation with the Bureau of Reclamation of the Department of the Interior includes preparation of estimates of flood control requirements, and benefits, and reservoir operating criteria for storage reservoirs to be constructed with Federal funds, in accordance with Sections 1 and 7 of PL 534-78 and Section 7 of PL 984-84, as amended. Studies made by the Bureau of Reclamation of the flood control features of proposed reclamation projects are submitted to the Corps of Engineers for review and determination of the flood control benefits. The Corps of Engineers uses the data collected by the Bureau but makes an independent evaluation of the project. The Secretary of the Interior uses the report of the Chief of Engineers in making allocation of project costs to flood control. Corps representation is required for cooperation with Federal and state agencies such as River Basin Compact Commissions; Interstate River Basin Compacts; and Regional Planning Commissions in authorized, but unfunded investigations. Funds are also used to support Corps participation in the North American Waterfowl Management Program. These funds will be used to continue cooperation with Federal and State agencies, and non-Federal interests in support of the NAWMP administered by the Department of the Interior, Fish and Wildlife Service. The NAWMP is an international program designed to reverse downward trends in North America's waterfowl populations by protecting and improving waterfowl habitats nationwide, particularly in 34 areas within the United States identified as being critical to meeting NAWMP goals and objectives. Department of the Army support to the NAWMP is set forth in an agreement signed with the Department of the Interior on January 23, 1989. Funds are also used to support participation in the National Estuary Program. These funds will be used to participate with Federal and State agencies in the National Estuary Program (NEP) administered by the Environmental Protection Agency under the Water Quality Act of 1987 (Section 320 of PL 100-4). The NEP is an interagency planning program to develop management plans for nationally significant estuaries designated by the EPA. Because of extensive Corps involvement with Federal water resources projects in the nation's estuaries and other responsibilities in waters of the U.S., the Corps has been asked to participate on the management and technical advisory committees of those NEP estuaries being studied. The requested funds would be used to cover costs of Corps field office meeting attendance, field reconnaissance, and data transfer.

APPROPRIATION TITLE: Investigations, Fiscal Year 2012

The Gulf of Mexico Program (GMP) request is \$100,000 to continue the Corps' participation in the Gulf of Mexico Program. The requested funds will be used to support participation by Corps personnel from Gulf districts/divisions in the execution of the Corps efforts to advance the Regional Sediment Management and Community Awareness of the Gulf of Mexico Alliance - Governor's Action Plan. The Gulf of Mexico Program/Coastal America partnership uses a cross-cutting collaborative approach to formulate and implement creative, place-based, non-regulatory solutions to economic and environmental issues with Gulf-wide and national implications. Funds support participation by Corps personnel from the Gulf districts and divisions in the execution of the Ocean Action Plan: Gulf of Mexico Alliance - Governor's Action Plan as follows: 1) refining sediment models and production of the Gulf Regional Sediment Management Master Plan (GRSMMP); and, 2) Community Resilience (CR). The bulk of the requested funds will be used to support these two alliance efforts to execute Corps' commitments in the Gulf of Mexico Alliance Action Plan II. A portion of the requested funds will also be used to support a Corps staff member who: 1) functions on the CA regional Team as Co-chair, CA - Gulf Regional Implementation Team (CA-GRIT), 2) coordinates with district, ERDC and IWR personnel to advance RSM and CR efforts, and 3) manages the requested funds.

(f) The Interagency and International Support request is \$600,000 to allow the Corps of Engineers to support other Federal agencies, international organizations and foreign governments to address problems of national significance to the United States under the authority of Section 234, WRDA 1996 and to collaborate with other countries and international organization on water resources and other matters. The Corps of Engineers has widely recognized expertise and experience in water resources, infrastructure planning and development, and environmental protection and restoration. Other Federal agencies, particularly the State Department, the Agency for International Development, and international organizations such as the World Bank and the United Nations, can benefit from use of the Corps talents. In many cases the Corps abilities to perform its civil works mission and promote national security interests especially those related to stability objectives are also enhanced. Program fund usage may include support to the State Department on international water issues including strategic cooperation with the Mekong River Commission, the World Water Council, USACE involvement on various interagency and international task forces and conferences, assisting US Embassies with strategic interactions with foreign governments, water resources cooperation with other countries including strategic cooperation with Brazil, and other initiatives. A significant portion of the funds may be used for:

(1) The Corps' International Center for Integrated Water Management (ICIWaRM) under the auspices of UNESCO, technical coordination and management of the hydrologic science and integrated water resources management (IWRM) related activities of the US National Committee for the UNESCO International Hydrological Programme (IHP), of which USACE is an agency member, scientific interaction with UNESCO's global and regional water centers, including those for which the Corps has Memorandum's of Understanding (MOU's): the Center for Arid and Semi-Arid Zones in Latin America and the Caribbean (CAZALAC); the Institute for Water Education (IHE); the International Center Hazards and Risk Management (ICHARM) and other UNESCO water centers and IHP initiatives. In FY12 ICIWaRM will continue efforts to support USG interests by providing training and capacity development for water managers and technical assistance for water security in developing and emerging nations, with focus-area initiatives in Africa, Latin America & the Caribbean, and Asia. Also in FY12, USACE plans to continue its multilateral engagement with the United Kingdom, the Netherlands and Japan on the sharing of technical knowledge on: flood risk management methods and tools, approaches for integrated water resources management (IWRM) at the river basin level, and incorporating water resources adaptation strategies for climate change as applied to water management and systems operations.

(2) Corps collaboration with the Netherlands Rijkswaterstaat to continue to gain knowledge from the Dutch in a number of areas. This exchange initiated in FY 2005 has been particularly useful in the wake of our coastal hurricanes and the Dutch have been quite responsive and helpful to us. The following are thrust areas that have been mutually identified. Dredging: The Dutch have extensive experience in this area and we stand to benefit greatly from their technologies and lessons learned. Sample targeted areas for sharing include: Re-suspension of sediments due to dredging; contaminated sediments: risk assessment, remediation options, confined disposal, and beneficial use; and methods to reduce dredging costs through contracting and market forecasting. Coastal Zone Management: The Dutch have devised an extensive range of structural and non-structural approaches related to coastal zone management. Their Room for the River process involves a number of innovative techniques designed to improve floodplain management. They have built an impressive network of storm surge barriers, flood gates, reinforced levees and flood walls. Risk and Reliability: The Dutch have worked closely with us on post-Katrina support and they have developed a unique approach to addressing flood and storm safety. The two nations have much to share in terms of taking the notion of risk and reliability to a higher level.

(3) Corps water resources technical exchange of information with Japan's Ministry of Land, Infrastructure, Transport and Tourism (MLITT). Under the terms of the 2008 (extension of a 2003 agreement) agreement on cooperation, USACE and MLITT alternate with formal annual visits to each agency in addition to other periodic interactions. The agreement has not only fostered the exchange of water resources technical and management information, but also may be considered part of the growing relationship on cooperation on addressing large scale disasters, improving water conditions that lead to country stability, and the overall US-Japan relationship so important to our security interests in Asia.

(4) Support to the World Water Council. The Corps is on the Board of Governors of the World Water Council which was established in 1996 in response to increasing concern from the global community about world water issues. International meetings are held each year and a World Water Forum is held every three years. The Council's Sixth World Water Forum will take place in March 2012.

APPROPRIATION TITLE: Investigations, FY 2012

Coordination Studies With Other Agencies

Other Coordination Programs (Continued)

(f) The Interagency Water Resources Development budget amount is \$955,000. Funds are included for Corps of Engineers district activities, not otherwise funded that require coordination effort with non-Federal interests. These activities include items such as meeting with City, County and State officials to help them solve water resources problems when they have sought advice or to determine whether Corps programs are available and may be used to address the problems. This will also cover costs of meeting with potential study sponsors before studies are budgeted to insure they understand study cost sharing and to obtain an indication of their interest in participating in a future study. Funds are included to provide support to the American Heritage Rivers program based on Executive Order 13061, dated 11 September 1997 and to provide support to the Coastal America Partnership. This amount also includes \$100,000 to sustain the benefits of the Great Lakes Habitat Initiative to continue multi-jurisdictional coordination, enhance decision-support capability, improve and advance monitoring.

APPROPRIATION TITLE: Investigations, Fiscal Year 2012

Coordination Studies with Other Agencies

Other Coordination Programs (Continued)

(g) National Dam Inventory

SUMMARIZED FINANCIAL DATA:

President's Budget for FY 2011	\$ 400,000
Allocation Requested for FY 2012	\$ 400,000
Increase of FY 2012 over FY 2011	\$ 0

AUTHORIZATION: Section 215 of the Water Resources Development Act of 1996 (Public Law 104-303) authorized \$500,000 to be appropriated each fiscal year for the maintenance and publication of the National Dam Inventory. This authorization was continued in the Dam Safety Act of 2006 (Public Law 109-460) and the amount authorized was increased to \$850,000 for fiscal year 2010.

JUSTIFICATION: The Inventory was initially compiled in 1975 has been periodically updated to reflect construction of new dams, ownership changes, major modifications to existing dams, decommissioning and removal of dams, and improvements in the accuracy and completeness of the data. The current update includes 83,897 dams, and focuses on current technology, integrating computer software into the inventory package to improve the ease of use, accuracy, and accessibility of the data. Annual funding is used to implement improved information flow and data quality control processes, to greatly enhance the state of knowledge management for dam safety. The importance of continued maintenance and publication of the National Dam Inventory has increased. The inventory is now required for use by the Secretary of Homeland Defense and the National Dam Safety Review Board in the allocation of dam safety program assistance funds to the various States in proportion to the number of dams in the state. Inventory data is also included in the biennial report to Congress on the National Dam Safety Program. The Inventory also plays an important role in the identification of infrastructure in risk due to terrorist activities. The ongoing maintenance and publishing of the Inventory is a coordinated effort involving data from the Federal and non-federal Dam Safety community in cooperation with the Interagency Committee on Dam Safety (ICODS) and the Association of State Dam Safety Officials (ASDSO).

PROPOSED ACTIVITIES FOR FY 2012: These funds will be used for continued maintenance and publication of the National Dam Inventory. During 2010 a request was made to the state dam safety agencies and Federal dam regulating agencies to update the condition assessment information for the high hazard potential dams under their jurisdiction in accordance the Dam Safety Act of 2006. Inclusion of an analysis of the significant hazard potential dams will be scheduled for FY 2012. During FY2011, the inventory will continue to be improved utilizing rapidly evolving technology including enhanced World Wide Web access, a Geographic Information System (GIS) interface, and integration with other dam safety resources. Funding at current level will not provide for inclusion of the assessment of the remaining dams in the National Inventory of Dams during FY2011 and will be delayed until funding is sufficient. Additional efforts are also required to ensure data security in response to Homeland Defense directives. Integration of the National Inventory of Dams with the Dam Security and Analysis System to identify terrorist threats to dams will be delayed until future fiscal years.

APPROPRIATION TITLE: Investigations, Fiscal Year 2012

Coordination Studies with Other Agencies

Other Coordination Programs (Continued)

(g) National Dam Inventory

ACCOMPLISHMENTS IN PRIOR YEARS: An updated inventory was published during 2010 based on data provided by the state and Federal agencies during 2009. The National Dam Safety Review Board adopted the classification codes to be used for the analysis of dam condition and many states are now using a condition assessment system in their own dam safety programs. Routine maintenance continued on the inventory along with providing an internet based, search-able inventory available to all Federal, state, and local government agencies and the public. During calendar 2010 there were over 1,000,000 inquiries to the inventory on the internet, more than 1,800 account requests and an average of 15 users per day accessing the site.

APPROPRIATION TITLE: Investigations, Fiscal Year 2012

1. Surveys

Coordination with Other Federal Agencies, State, and Non-Federal Interest Other Coordination Programs

The Corps' FY 2012 request for Lake Tahoe is \$100 000. This funding is required to continue work associated with the Lake Tahoe Federal Interagency Partnership as directed in Executive Order 13057. The Federal Interagency Partnership is working with state and local agencies and public interest groups to arrest further deterioration of Lake Tahoe while maintaining a viable economic climate. FY2012 activities will include: \$100,000 for full active participation in Partnership Activities (includes working with local and state agencies, public advisory committees, Southern Nevada Public Lands Management Act (SNPLMA) program participation, and staff work to support District, Division and HQ executive level involvement).

APPROPRIATION TITLE: Investigations, FY 2012

Coordination Studies with Other Agencies

Other Coordination Programs (Continued)

(k) The Pacific Northwest Forest Case Study request is \$10,000.

The Northwest Forest Plan (NFP) is an interagency program, initiated by the White House's Council of Environmental Quality, for ecosystem management of the public lands in the Pacific Northwest within the range of the Northern Spotted Owl. In FY 1999, the Corps of Engineers (Corps) became an official signatory agency to the NFP Memorandum of Understanding. The NFP institutes an interagency approach for restoring and protecting animal and plant species on public lands and provides for economic assistance to impacted communities. With the funds requested, the Corps will be able to resurrect its partnership with Mt. Baker-Snoqualmie and Olympic National Forests, other Federal agencies, local Watershed Councils, and state and tribal forums and workshops; and more importantly participate fully on the Provincial Advisory Committees for the two National Forests. The Corps will provide technical support for watershed evaluation and restoration planning through expertise, participate in reviews of restoration and monitoring plans, and assist in the implementation of restoration projects and species protection. NFP funding will enable the Corps to continue to work cooperatively with its other Federal NFP partners (USDA Forest Service, Bureau of Land Management, US Fish and Wildlife Service, National Marine Fisheries Service, National Park Service, Environmental Protection Agency, Bureau of Indian Affairs, and Natural Resource Conservation Service) and the State of Washington. NFP participants are presently concentrating on the development of coordinated Implementation Monitoring and Effectiveness Monitoring Programs while continuing to refine and implement its watershed ecosystem management strategies. The NFP presents the best opportunity for the Corps to expand its involvement with the other agencies of the Federal and State communities to use all of our engineering and environmental capabilities to address many of government's missions.

**Coordination Studies with Other Agencies (Continued)
Other Coordination Programs (Continued)**

(I) Special Investigations

SUMMARIZED FINANCIAL DATA:

President's Budget for FY 2011	1,550,000
Allocation Requested for FY 2012	1,550,000
Increase of FY 2012 over FY 2011	0

- SCOPE. Investigations of potential flood risks, drainage, channel and harbor improvements, anchorages, and environmental restoration including:
- (1) Review of preliminary permit and licenses applications, in collaboration with the Federal Energy Regulatory Commission (FERC) for non-Federal hydroelectric power development either at, or affecting, Corps water resource projects.
 - (2) Special investigations of nominal scope and reports prepared pursuant to Congressional and other requests from outside the Corps of Engineers for information relative to projects or activities not covered by other funding resources;
 - (3) Similar work of detailed scope, as specifically authorized by the Chief of Engineers; and
 - (4) Review of reports and environmental impact statements of other agencies.

Coordination Studies With Other Agencies

Planning Assistance to States

SCOPE: This Corps of Engineers program stems from Section 22 of the Water Resources Development Act of 1974, as amended, which authorizes the Secretary of the Army to assist States, local governments, Indian tribes, and other non-Federal entities in the preparation of comprehensive plans for the development, utilization, and conservation of water and related land resources. The studies are cost-shared on a 50% Federal, 50% non-Federal basis. The program can encompass many types of studies dealing with water resources issues, including environmental conservation/restoration, wetlands evaluation, water supply and demand, water quality, flood damage reduction, flood risk management, coastal zone management, and dam safety. This program is one of the few tools we can efficiently leverage against our partners' investments; it is a primary resource for the interagency Silver Jackets teams. Use of the Planning Assistance to States program to achieve common interagency goals optimizes the use of our and our partners' resources, providing the best risk reduction possible with available funds.

SUMMARIZED FINANCIAL DATA:

Allocation Requested for FY 2012	\$5,000,000
President's Budget for FY 2011	\$7,000,000
Change in FY 2012 from FY 2011	\$ -2,000,000

JUSTIFICATION: The Planning Assistance to States program has continued to evolve into a highly effective tool for providing technical and planning assistance to states, local governments, and Indian tribes. As more states develop and update hazard mitigation plans, watershed plans and floodplain management plans, this program provides the opportunity for the Corps to provide expertise. This program supports the initiative to facilitate pre disaster and post disaster assistance and Executive Order 11988. This program has been used to develop erosion control designs that a region continues to use today which has improved water quality, helped with flood damage reduction and conserved significant water and related resources. The states, local governments, and Indian tribes recognize the need to develop locally directed solutions to their water resources problems and this program continues to be a valuable resource. The FY 2012 amount will enable the Corps to provide much needed planning and technical assistance to assist in a wide variety of water resource efforts, including environmental restoration studies, flood risk management and watershed planning. While program funds priority is for ongoing studies which can be completed within the fiscal year, program funds are distributed across the country for each of the Corps Major Subordinate Commands (MSC) to assess, prioritize, and fund the needs of the MSC region.

APPROPRIATION TITLE: Investigations, FY 2012

Subject to funding, current ongoing studies which could be completed in FY 2012 include:

State	Study	Completion Amount
AZ	AZ Flood Warning System, Phase 2	\$115,000
CA	Los Angeles County Outreach Program	\$345,763
FL	Okaloosa Water Supply	\$70,000
KS	KS River Water Resource Study	\$100,000
MD	Howard County Stormwater Modeling	\$100,000
MO	St. Charles Riverfront	\$25,000
MS	MS Band of Choctaw Indians	\$78,000
MS	Choctaw Co. Water Supply	\$100,000
	Red River of the North Unsteady Flow	
ND	Model Phase 4	\$25,000
NV	Churchill County, NV	\$365,506
OK	Neosho Basin Management Plan	\$100,000
OK	Oklahoma Comprehensive Water Plan	\$500,000
OK	Sunflower Coalition Study	\$100,000
TX	Cypress Bayou Cross Sections Survey, TX	\$40,000
TX	Sargent Beach	\$125,000
	Chesapeake Bay Relative Water Level	
VA	Increases (Phase II)	\$28,500
	City of Chesapeake, VA Storm Water	
VA	Mgmt.	\$45,000
	City of Richmond, VA Storm Water	
VA	Mgmt.	\$40,000

APPROPRIATION TITLE: Investigations, FY 2012

VA	City of Virginia Beach, VA Storm Water Mgmt.	\$45,000
VA	Middle Peninsula Chesapeake Bay Public Access Authority Shallow Draft Dredging and Sediment Management Plan, VA	\$36,500
VA	Stafford County, VA	\$50,000
VA	Storm Water Outfall Survey for the Cities of Charlottesville and Richmond, Virginia Urban Areas	\$50,000
VA	Virginia DOT, Virginia	\$200,000

ACCOMPLISHMENTS: In fiscal year 2010, the Corps of Engineers spent more than \$5.3 million on 167 studies in most States and the pacific and caribbean Islands, and with Federally-recognized Indian tribes. These studies provided technical and planning assistance for a full range of water resources issues. Significant efforts involved studies to assist local communities in addressing their flood risk through flood hazard information reports, restoring urban river environments, and accomplishing wetlands identification and mapping studies. Efforts were undertaken to assist states and local governments in flood damage reduction, ecosystem restoration, drinking water supply and demand, and water quality.

APPROPRIATION TITLE: Investigations, Fiscal Year 2012

Collection and Study of Basic Data

Automated Information Systems Support - Tri-Service CADD/GIS Technology Center

<u>SUMMARIZED FINANCIAL DATA:</u>	<u>Funding</u>
Allocation Requested for FY 2012	350,000
President's Budget for FY 2011	350,000
Change in FY 2012 from FY 2011	0

SCOPE: This effort provides technical support to engineers and scientists utilizing Computer Aided Design (CAD), Geographic Information Systems (GIS), Building Information Modeling (BIM), and facility management technologies in the planning, design, construction, operation and maintenance of Corps projects. The Center is jointly funded by Military, Civil Works, and other Federal agencies and provides technical support across all sectors. Benefits are accrued by individual USACE districts/projects in the conduct of its Civil Works mission.

In 1992, the former Army Corps of Engineers' Computer Aided Design and Drafting (CADD) Center, located in the Army Engineer Waterways Experiment Station (WES), was expanded to an Army, Navy, Air Force (Tri-Service) center, including the addition of Geographic Information Systems (GIS) technology, by a joint agreement between the Corps, the Naval Facilities Engineering Command, and the Air Force Civil Engineer. Its purpose was to reduce duplication of effort between the three services in the management of CADD/GIS technology for facilities and environmental engineering. Since that time, the Defense Logistics Agency (DLA), the General Services Administration (GSA), USGS, FBI, Smithsonian Institution, National Capital Planning Commission, U.S. Marine Corps, U.S. Coast Guard, National Institute of Building Sciences, National Geospatial-Intelligence Agency (NGA), EPA, and NASA have joined this effort. As a result, this Center is a multi-agency vehicle to set standards, coordinate CADD/GIS systems uses, promote system integration, support centralized acquisition, and provide assistance for the installation, training, operation, and maintenance of CADD/GIS systems within the DoD facilities and environmental communities, including the Corps districts. All Corps districts that use BIM, CADD and GIS in mapping, planning, real estate, design, construction, operations, maintenance, and homeland defense and readiness benefit from the Center's efforts.

In FY08, the Center was re-chartered to focus its activities on the needs of the Tri-services and the Office of the Secretary of Defense (OSD). This change reverses the trend towards adding other federal agencies. The focus continues on CAD and adds Building Information Modeling (BIM) to the Center's activities and developing BIM capabilities that address the Civil Works business domain.

The \$350,000 requested for FY 2012 will support over 2,400 users of BIM/CAD/GIS and facility management technologies for Civil Works projects.

Automated Information Systems Support - Tri-Service CADD/GIS Technology Center (continued)

JUSTIFICATION: All Corps districts use CAD and GIS computer systems for Civil Works engineering, design, mapping, planning, and facility management. Many now use BIM as an engineering and O&M tool. All engineering drafting tables have been replaced with CAD platforms or computer mapping systems and most Corps environmental and natural resource analysis are being performed on GIS platforms. The geospatial data standard efforts of the Center were coordinated with the American National Institute of Standards to develop a National GIS Standard which was approved in November 2001 and includes civil works and homeland defense features. Standards and productivity enhancement tools developed by the Center are used for both in-house and contractor produced drawings, maps and analyses, which assure that all Corps offices have the ability to exchange their work among themselves and with others, including the private sector. The Center is actively coordinating its CAD standards 3.1. with the National Institute of Building Sciences and has created a National CAD Standard, thus reducing the redundancy with the private sector and reducing cost for both government and the private sector. In 2006, the Center began coordination and developmental support for the US National BIM Standard. The BIM standard addresses the latest building information model technology within the US building and construction industry. The Center ensures that the Corps obtains the maximum return on its investment in BIM, CAD, and GIS by coordinating development efforts and distributing end products to Corps offices. The BIM, CAD, and GIS systems at field offices can achieve maximum productivity when they take advantage of the economies of scale offered by sharing the development and use of common data standards, procedures, and applications. This sharing is accelerated through a concerted effort by the Center, working with various field working groups, to draw from field expertise and dissemination of this knowledge in the form of lessons learned and standards to benefit all Corps users. Comprehensive data standards supported by the Center permit government and industry users to produce equivalent designs, maps and analysis on a variety of computer systems using commercial off-the-shelf BIM, CAD, and GIS software.

PLANNED ACCOMPLISHMENTS IN FY 2012

1. 2011 USACE BIM RoadMap Update. The RoadMap will be revised to reflect changes in BIM technology. Additions will include the latest Instructions to A-Es, Contract Language updates, and O&M data requirements for Civil Works.
2. Maintenance of AEC CAD Standard. The objectives for FY12 are: (1) Continue development of the A/E/C CAD Standard to incorporate changes in CAD technology, modifications to the U.S. National CAD Standard, and needs of field users; (2) Update DGNLibrary files, border files, and template drawings to comply with R4.0 of the A/E/C CAD Standard; (3) Update/revise A/E/C CAD Standard database for NetSPEX.
3. Develop and implement an Autodesk version of the USACE BIM Workspace.
4. Develop Autodesk and/or Bentley version of the USACE BIM PROSPECT training course for Project Managers, Construction Managers, and Facility Managers.
6. Develop a BIM template for each USACE district to submit to HQUSACE for the development of a USACE-wide BIM success metric(s).
7. Develop Interior Design Contract Procurement Package (web-based utility) for USACE Interior Designers.
8. Develop phase one of Building Information Modeling (BIM) Primer – “Life-Cycle” Process and Technology Innovation”
9. Develop and conduct Civil Works BIM training Class. The emphasis is on benefits/process of BIM use in Civil Works projects.

Automated Information Systems Support - Tri-Service CADD/GIS Technology Center (continued)

ACCOMPLISHMENTS IN FY 2011:

1. Release 4.0 of the A/E/C CAD Standard (both document and software tools) was released via the web. The A/E/C CAD Standard will continue to incorporate Building Information Modeling Standard (BIM) requirements. The FY09 Tri-service corporate dataset for BIM applications was updated and released via the web. The A/E/C CAD Standards content was revised to make it compatible with the latest released version of the National CAD Standard and National BIM Standard. BIM User Workshops and BIM Managers classes were conducted for Civil Works districts and a Autodesk version of the class was developed and conducted.
2. The CAD Generic Detail Library was updated and functionality of the web interface was improved through new controller software.
3. The GIS Spatial Data Standard for Facilities, Infrastructure, and Environment (SDSFIE) Release 3.0 was coordinated with Services and published.
4. A proof-of-concept to USACE for consideration as a BIM deliverable requirement within USACE contracting requirements was completed. An Instructional Manual for assembling .pdf files for input to web-based site for ACSIM use.
5. BIM Contract language originally released in FY08 was updated to address specific data requirement for all BIM models.
6. The Center continued its development of BIM expertise. The BIM Road Map and Implementation Guide was updated and released.
7. The Center continued its deployment role for the collaborative engineering tool ProjectWise Deployment of ProjectWise at Transatlantic Programs Center, GRD, and AED was completed. Release of the ProjectWise PCM 3.0 was also delivered.
8. SDSFIE web site was enhanced to provide additional capabilities and meet user needs.
9. ProjectWise demonstration project for the management of Real Estate documents was completed for both Civil Works and Military districts.
10. BIM to GIS demonstration project based on the ESRI vendor tool set was demonstrated. The focus was on interior equipment and furnishing.
11. Completed additional SDSFIE data modeling activities including Dam and water control data modeling.

APPROPRIATION TITLE: Investigations, Fiscal Year 2012

2. Collection and Study of Basic Data

c. Other Programs

(6) Coastal Field Data Collection

SCOPE: The Coastal Field Data Collection program systematically measures, analyzes, and assembles long-term coastal data that the Corps uses to accomplish coastal navigation, storm damage reduction, and ecosystem restoration missions. These are critical, high quality data sets, which provide important technical foundations and resources to support the development of coastal process analytical understandings. These kind of synoptic data resources (covering meteorological, oceanographic, and sediment transport process) support the technical needs of multiple USACE coastal projects. No single project would have the mandate or funding required to collect and develop these comprehensive, continuous, data sets.

SUMMARIZED FINANCIAL DATA:

Allocation Requested for FY 2012	1,000,000
President's Budget for FY 2011	1,400,000
Change in FY 2012 from FY 2011	-400,000

AUTHORITY: The basic authority for the Coastal Field Data Collection Program is 33 USC 426a which originated with the River and Harbor Act of 1945, which originated in the River and Harbor Act of 1930. The latest Engineering Regulation governing the program is ER 1110-2-1406 dated 1990.

JUSTIFICATION: Inaccurate and insufficient observation data results in project design errors for coastal navigation and storm damage reduction. For example, wave data with a 20% error that are used to design a coastal rock structure will yield a 70% error in the stone size used to build the structure. Oversized stone makes initial construction costs much higher and undersized stone results in early failure and higher than necessary life-cycle repair costs. Similarly, a 5-10 degree error in wave direction can result in an error, or even reversal, in predicted sediment transport, compromising the success of a regional sediment management strategy. Cost-effective mission accomplishment requires accurate and complete data. Long-term data are required to determine climatic changes that may impact Corps' projects. Lack of available high-quality wave data, along with other coastal variables, was highlighted as a critical issue, by the Coastal Working Group of the Hydraulics, Hydrology and Coastal community of Practice in a Corps-wide survey on data requirements in 2009.

The Coastal Field Data Collection Program, through its authority, provides required baseline data for coastal projects and operation activities. The data are developed, maintained, and applied through the following activities: (1) The Field Research Facility, a coastal observatory for long-term coastal measurements to improve our modeling and project design capabilities and (2) the use of coastal response data to quantify the performance of Corps Coastal Storm Damage Reduction Projects. (3) Work to improve our understanding of storms and climate impacts in reef and island environments will not be funded in FY12. This included the Pacific Island Land Ocean Typhoon (PILOT) effort which collected measurements of typhoon waves and storm surges in island reef environments and the Surge Wave Island Modeling Studies (SWIMS) effort which utilized PILOT data in developing improved island storm surge models.

1. Field Research Facility, a long-term Coastal Observatory. Critical to measuring, analyzing and providing useful coastal data products for Corps districts is the collection of long-term, high-resolution data for improving project design and performance. The *Field Research Facility* (FRF) in Duck, North Carolina (<http://frf.usace.army.mil/>), is a real-world coastal facility that collects a comprehensive suite of wave, current, meteorological, bathymetric, and topographic data,

APPROPRIATION TITLE: Investigations, Fiscal Year 2012

typically required, but often unavailable at a Corps project site. The facility is used to: evaluate oceanographic measurement techniques and equipment, collect high-resolution data during storms, conduct large interagency field experiments, and collect spatially and temporally-intensive long-term measurements required to better understand complex coastal processes and coastal climate changes. These data are made available online and in real time to engineers and scientists in the Corps, other agencies (NOAA, NSF, Navy, USCG, USGS, NASA, etc.), universities, and the private sector for researching coastal processes and for developing and verifying numerical models and coastal engineering tools that predict wave environments and sediment movement affecting coastal projects, navigation safety, dredging quantities and project impacts. They are also crucial for evaluating and improving the data products and models produced by other programs. As a unique coastal observatory, the FRF is a significant Corps contribution to the Integrated Ocean Observing System (IOOS) as specified in the President's Ocean Action Plan and authorized in the Integrated Coastal and Ocean Observation System Act of 2009 (PL No. 111-11). In addition the facility is serving as a testbed for evaluating and developing coastal numerical models (many models exist, but few have been rigorously evaluated).

PROPOSED ACTIVITIES FOR FY 2012:

- Continue long-term data collection program and support the data requirements of the real-time model test bed. This includes the cross-shore array that extends from very shallow water offshore to -26m which is providing data to advance coastal wave modeling technology.
- Continue the implementation of real-time, advanced coastal mapping techniques of dune, beach and nearshore using radar and topographic lidar sensing techniques.
- Extract storm data sets from the FRF data record for use as modeling test cases
- Develop conceptual model for the evolution of seabed roughness from underlying geology – which will help explain many Corps project problems where the underlying geology is not uniform along the coast.
- Explore the ~30+ year record of nearshore waves and morphology observations for climate signals and trends (storminess, modulation of wave field, morphology evolution etc.)

ACCOMPLISHMENTS IN FY 2011:

- Continue long-term data collection program and support the data requirements of the real-time model test bed.
- Developed a real-time, advanced coastal mapping techniques of dune, beach and nearshore using new remote sensing techniques (radar and topographic lidar)
- Expanded the FRF's unique cross-shore instrument array to include a swash measurement of bore height to supplement our investigation of setup/runup and to improve our ability to determine shallow-water depths from inversion of the wave information in a radar record.
- Collected new storm observations of wave setup and runup, key variables required to improve inundation and overwash predictions. Used these data to refine the prediction of wave runup and overwash, with application to improved beach modeling.
- Collected real-time seabed observations in order to improve estimates of roughness and to document the development of shore-oblique sandbars. Developed a conceptual model for the evolution of seabed roughness from underlying geology – which will help explain many Corps project problems where the underlying geology is not uniform along the coast.
- Developed the Radar Inlet Observing System (RIOS) and conducted a pilot experiment at Oregon Inlet for a 2-3month deployment

2. Performance of Coastal Storm Damage Reduction Projects. The objective of this activity is to improve the economic and environmental services delivered through the Corps Coastal Storm Damage reduction portfolio by documenting and evaluating their performance, durability, and sustainability. This data will contribute to the development of performance indicators as well as improved scientific and technical foundations for analysis, design, and economic evaluation. Data sets that can be used to improve performance and demonstrate economic benefits will enhance the long-term sustainability of coastal storm damage reduction projects. This effort will have a strong interagency component to maximize the use of existing data and enhance credibility. States and nongovernmental organizations will also be involved to leverage resources and identify needs and sources. Both national and field requirements for tools and techniques for benefit

APPROPRIATION TITLE: Investigations, Fiscal Year 2012

assessment will be included. Information posting will be coordinated with the prototype National Coastal Data Bank. This program will benefit from the hurricane impact assessments done following the Florida hurricanes of 2004, Hurricane Katrina in 2005, and Hurricane Ike in 2008.

PROPOSED ACTIVITIES FOR FY 2012:

- Workshop to develop the study team and approach, and to identify candidate projects for documentation.
- Develop standardized templates for consistent, ongoing, monitoring, data collection, and evaluation

ACCOMPLISHMENTS IN FY 2011:

- No activity in FY2011

3. Pacific Coastal Inundation Modeling initiative: The objective of the Pacific Coastal Inundation Modeling (PCIM) activity is to address specific requirements for island environments that were developed in FY10 through a series of multi-agency workshops led by the Corps and also attended by university experts throughout the Pacific. These workshops built upon the outcome of the Pacific Island Land Ocean Typhoon (PILOT) experiment and the Surge Wave Island Modeling Studies (SWIMS) previously conducted through this program. Development of a Pacific Coastal Inundation Model (PCIM), would address climatic change in the Pacific (water levels, waves, storm tracks, rainfall, etc.) along with potential impacts of inundation. PCIM development would be led by USACE with support from USGS, NOAA and academic partners and would be used to address inundation risks and coastal management strategies. PCIM would directly support USACE responsibilities for planning, design, operation and maintenance of projects in the Pacific region.

PROPOSED ACTIVITIES FOR FY 2012:

- Not scheduled for funding in FY12 through the CFDCP.

ACCOMPLISHMENTS IN FY 2011 (through SWIMS and PILOT activities):

- Continued monitoring in the US Virgin Islands, and in the Pacific.
- Web site developed to enable easy dissemination of data, findings and research papers.
- All data collected up to and including FY 08 processed and posted on Web site.
- Initiated research in the reef characteristics and the development of corresponding friction coefficients
- Two-dimensional model components were validated with PILOT field data and physical model data (including unique data collected in FY08 & FY09 at ERDC laboratory facilities) and incorporated into an upgraded modeling system.
- Additional physical model tests were performed, including reef channels that influence water levels and inundation, to validate models.
- A range of potential storms were run for Oahu and incorporated into a database for emergency planning.
- Hands-on training of tool application was provided to Corps Districts and local emergency managers, and continued coordination with these users.
- Modeling in the Caribbean also began, as PILOT data became available.

PROGRAM TOTALS

APPROPRIATION TITLE: Investigations, Fiscal Year 2012

<u>PROGRAM ITEM</u>	<u>FY12</u>
1. Field Research Facility, a Long-term Coastal Observatory	970,000
2. Performance of Shore Protection Projects	30,000
3. <u>Pacific Coastal Inundation Modeling initiative</u>	<u>0</u>
Total	\$1,000,000

APPROPRIATION TITLE: Investigations, FY 2012

Collection and Study of Basic Data

Environmental Data Studies

JUSTIFICATION: The Environmental Data Studies Program budget amount is \$75,000. Funds will be used to continue development of an Environmental Database System, to support collection and sharing of environmental information and to support the development of performance measures for the Environmental Business Program.

ACCOMPLISHMENTS FOR FISCAL YEAR 2011: Develop Beta version for wide scale testing and work on GIS component.

OBJECTIVES FOR FISCAL YEAR 2012: Complete database development, data entry, and transition to full deployment.

2. Collections and Study of Basic Data

c. Other Programs

(11) Flood Damage Data Program

SCOPE: The Flood Damage Data Program is required to facilitate the collection and maintenance of basic flood damage data to support Corps field offices in accomplishment of flood damage reduction studies. Planning and evaluation of flood damage reduction projects requires knowledge of actual damages caused to various types of properties. The relationships between flood depth, flood duration and velocity, value and type of property, and the amount of damage are essential to making accurate and supportable estimates of the value of projects. The distributions of damages resulting from the various factors involved are needed for the risk analysis framework adopted for water resource studies. Damage data are obtained in rare instances when a damaging event occurs and funded studies are underway. However, in most instances when flooding occurs there are no current studies in the area or other funding mechanism to collect the requisite data to be used in future analysis or to report and accurately record the damages incurred and account for the effect of the factors that caused the damages. Previously no centralized flood damage data source existed which retrieved basic data for research efforts and for specific project studies. The major purpose of the program is to improve the technical quality and accuracy of flood damage data, to improve the understanding of the interrelationships of the characteristics of flooding on property damage, to improve the formulation of flood damage reduction projects, and reduce the costs of feasibility studies. Coastal damage data collection will be needed to adapt to new coastal protection policies and to respond to concerns from the Office of the Assistant Secretary of the Army (Civil Works) in the review of recent coastal protection projects. The activities of the program are to: (1) conduct actual flood damage surveys following flood events for riverine and coastal events; (2) develop, maintain, and improve the economic database for flood damage reduction projects; (3) calculate flood depth-damage functions for riverine and coastal flooding based on actual damage data; (4) collect data and derive damage relationships for roads, public building and facilities, and other public costs of flooding; (5) develop and maintain a floodplain inventory application that would be used to apply flood damage estimation models to feasibility, reconnaissance, and continuing authority studies; and (6) provide information to communities of hazard mitigation plans and grant applications.

SUMMARIZED FINANCIAL DATA:

Allocation Requested for FY 2012	\$220,000
President's Budget for FY 2011	\$220,000
Change in FY 2012 from FY 2011	\$0

JUSTIFICATION: The \$220,000 requested in FY 2012 for Flood Damage Data would be used to update and maintain data collection survey forms and data collection techniques, to collect post-flood damage data, to employ the flood damage database to estimate National models where regional or local flood characteristics can be specified to estimate flood damage relationships, to update and maintain a geospatial computer application for floodplain inventory data. A model for estimating residential and nonresidential structure values would be field tested and expanded. Funds would also be used to facilitate the collaboration in collecting and sharing of flood damage data within the Corps and between other agencies. The results of damage function calculations would be particularly useful to communities applying for FEMA mitigation grants. Generic damage functions from the Flood Damage Data Collection Program are now imbedded in the FEMA Benefit/Cost Analysis Program for common use for grant applications. Funds would also be used to develop procedures for estimating public costs of flooding.

2. Collections and Study of Basic Data

c. Other Programs

(11) Flood Damage Data Program (continued)

ACCOMPLISHMENTS:

In FY 2011

1. Conduct post-flood damage collection for damages public properties, including roads and bridges.
2. Provide valuation procedures for nonresidential structure categories.
3. Provide updates and enhancement to IWR-GeoFIT.
4. Provide technical support for IWR-GeoFIT.
5. Release standardized values for public costs of flooding.
7. Provide standardized procedure for benefits of avoiding temporary relocation.
8. Provide technical support for flood damage analysis.

Planned for FY 2012

1. Provide damage functions for additional nonresidential uses.
2. Provide new damage functions for vehicles
3. Provide updates and enhancement to IWR-GeoFIT.
4. Provide technical support for IWR-GeoFIT.
5. Demonstrate the use of Geo-FIT for economic update requirements.
6. Demonstrate the use of Geo-FIT for analyzing project accomplishments.
7. Provide technical support for flood damage analysis.

APPROPRIATION TITLE: Investigations, FY 2012

Collection and Study of Basic Data

Flood Plain Management Services

SCOPE: This Corps of Engineers program stems from Section 206 of the 1960 Flood Control Act (PL 86 645), as amended, which authorizes the Secretary of the Army to acquire, compile and disseminate data on floods and flood damage potential and to provide guidance in their use in flood related planning to State and local agencies. This information and guidance has long supported planning and implementing actions that reduce flood risk through wise use of flood plains. The lessons of the gulf coast disasters and the concerns about the Sacramento levees have heightened concern and interest in increasing our focus on flood risk management and increasing and improving the Nation's awareness and understanding of actual flood risk exposure. As we better understand the risks we face, the need to provide accurate and timely flood risk information, interpretation, and guidance for coping with these risks is severely taxing our available resources. Meanwhile, our local, State, Tribal and Federal partners continue to address similar issues, often independently. This program is one of the few tools we can efficiently leverage against our partners' investments; it is a primary resource for the interagency Silver Jackets teams. Use of FPMS funds to achieve common interagency goals optimizes the use of our and our partners' resources, providing the best risk reduction possible with available funds. This program supports Executive Order 11988 as the federal governments' guidelines for pursuing activities that may impact the nation's flood plains. This program also fills a critical need as one of the few ways that small communities can access the expertise of the Corps. The Corps participates with the Federal Emergency Management Agency and local governments in the conduct of pre disaster hurricane evacuation and preparedness studies for mobilizing local community responsiveness to natural disasters in high hazard coastal areas.

SUMMARIZED FINANCIAL DATA:

Allocation Requested for FY 2012	\$9,000,000
Budget for FY 2011	\$8,000,000
Change in FY 2012 from FY 2011	\$1,000,000

JUSTIFICATION: The funds requested for FY 2012 will enable the Corps to provide critical information and guidance to states and local communities in their application of flood plain management measures, optimizing use of our and our interagency partners' limited resources. It will provide site-specific flood and flood plain data and assistance; assist with efforts to identify flood hazards in communities under growth pressures; facilitate special studies that concentrate on the prevention of future flood damages, giving increased emphasis to the application of non-structural measures; communicate the existing risk and alternatives to address the risk; and enable critical pre-disaster hurricane evacuation and preparedness studies for states and counties along the Atlantic and Pacific Oceans, the Gulf of Mexico, and US islands in the Caribbean and Pacific. Program funds will be utilized to fund the Floodplain Management Services national subprograms. Based upon program execution, the balance of the program funds will then be distributed across the country for each Corps Major Subordinate Command (MSC) to assess, prioritize and fund the study needs of the MSC region. In FY 2010, \$4.2 million was utilized for the base program of Corps district offices responding to requests for information in a timely manner. Another \$4.2 million was utilized for 53 Flood Plain Management Studies and special programs.

APPROPRIATION TITLE: Investigations, FY 2012

In addition to the base program and contingent upon the funding, the ongoing studies listed below could be completed in FY 2012.

State	Study	Completion Amount
AK	Anchor Point Flood Information Report	\$30,000
AK	Flood Data Digitizing	\$25,000
AK	Flood Surveys	\$50,000
CA	DWR Flood Risk Notification Program	\$30,000
GA	GA HES and Hurrevac Training (Special Studies)	\$100,000
HI	Nuuanu Flood Study	\$100,000
HI	Waiohuli Gulch Flood Hazard Study	\$100,000
IA	Iowa Reservoirs Dam Safety Study	\$50,000
IA	Iowa River at Wapello Bankline Erosion Control Study	\$25,000
KS	Osawatomie, KS Study	\$50,000
KS	Wichita Drainage Study	\$80,000
LA	Chitimacha Tribe of LA GIS	\$400,000
LA	City of Alexandria, LA GIS	\$400,000
LA	East Baton Rouge, LA GIS	\$350,000
LA	Livingston Parish, LA GIS	\$500,000
MD	Southern MD	\$500,000
MN	Upper Mississippi River Regional Discharge-Frequency Study	\$120,000
NE	Papillion Creek	\$865,000

APPROPRIATION TITLE: Investigations, FY 2012

NY	Upper Susquehanna River Basin	\$200,000
	Community Development Block Grant	
OK	Community Review EO11988	\$30,000
OK	Flood Risk Native American	\$30,000
	South Central Pennsylvania Floodplain Study	
PA		\$300,000
PR	PR Behavioral Study	\$120,000
WA	Wahkiakum Co (Elochoman River)	\$57,000

ACCOMPLISHMENTS: In FY 2010, the Corps was active in 42 special studies in response to requests from Federal and non-Federal agencies, communities, Indian Tribes and individuals for flood-related information, interpretation, and guidance. The requests continue to number into the tens of thousands and involve property valued at billions of dollars. The Corps participated in pre-disaster hurricane evacuation and preparedness studies for high-hazard areas in coastal states and territories; provided support for updating and improving mathematical models of flood plain hydrology and hydraulics; developed training programs in flood plain hydrology and hydraulics; and prepared flood-proofing studies.

2. Collection and Study of Basic Data

c. Other Programs

(4) Hydrologic Studies

SCOPE: The scope of activities under this item is determined annually based on the requests from USACE Commands and Laboratories to meet high-priority needs. These items are not covered under regular Civil Works GI and O&M funding programs. Major activities to be undertaken in the program generally include the collection of basic hydrologic data and the studies of these data for major storm events or certain special hydrologic processes. The information to be derived from this program will improve hydrologic engineering techniques for the planning, design, construction, and operation of water resources projects. The program consists of four sub-items: Storm Studies, General Hydrologic Studies, Sedimentation Studies, and Stream Flow and Rainfall Data.

SUMMARIZED FINANCIAL DATA:

Budget for FY 2012	250,000
Allocation for FY 2011	250,000
Change in FY 2012 from FY 2011	0

JUSTIFICATION:

1. Storm Studies: The Storm Studies Program is a continuing investigation of major storms for the purpose of accumulating comprehensive rainfall data. These data are used to refine the regional hydrometeorological information throughout the nation. The up-to-date hydrometeorological information is essential for design of new projects as well as for safety assessment of existing projects. We have substantial need for hydrologic data for initiation and completion of water resources studies. These data are required in the evaluation of flood-producing potentials of river basins, and constitute the major portion of the basic data used in probable maximum precipitation determinations. Funds in the amount of \$50,000 will be required in FY 2012 to work on several storm studies. The need and capability in this area exceeds the requested budget amount.

2. General Hydrologic Studies: Studies under this sub-item include needed improvement in the analysis of rainfall-runoff relationships, flood frequency, snowmelt studies, hydrograph development and routing at selected watersheds, model calibrations in urban areas, analyses of past floods, methods for the hydraulic analysis of non-gaged streams, and other studies of related hydrologic nature. Also included are planned upgrades to the internal Corps system of accounting for gages used largely both of control of water resources projects and also for studies of major hydrologic events. Studies of new techniques to improve the accuracy of hydrologic modeling require additional resources. New radar applications in rainfall-runoff forecast is an ongoing need. Funds in the amount of \$100,000 in FY 2012 will be required to continue this sub-item at a level to insure proper and orderly progress. The need and capability in this area exceeds the requested budget amount.

2. Collection and Study of Basic Data

c. Other Programs

(4) Hydrologic Studies (continued)

3. Sedimentation Studies: The program is a continuing effort in which funds are used for conducting non-project sedimentation studies, and for the Corps share of an interagency sediment investigation program. The sedimentation studies include: promoting and supporting the standardization and development of equipment, criteria and methodology for the collection, analysis of suspended and bedload sediment characteristics of natural streams; and laboratory studies. An amount of \$50,000 in FY 2012 is required to continue the interagency sediment investigation program. The need and capability in this area exceeds the requested budget amount.

4. Streamflow and Rainfall Data: This is a continuing program in which funds are used for installation and operation of hydrometeorology gages of non-project nature that are needed by the Corps in addition to the stations in the cooperative programs conducted by the U.S. Geological Survey and the National Weather Service for the Corps. Additionally, gages are needed to observe historical high water marks for validation of hydrologic models. An amount of \$50,000 in FY 2012 is required to continue the establishment and operation of these special-purpose gages, and to determine historical flooding in urban sites. The need and capability in this area exceeds the requested budget amount.

ACCOMPLISHMENTS

1. Storm Studies: During the period, the Corps has helped lead an effort to develop Extreme Storm Data to assist both the Corps and other federal agencies to meet design criteria for federal projects. Corps offices have gathered data on several major storms, reviewed the scope and interim results of ongoing studies by NWS on development of standard project and probable maximum storms at various basins throughout the United States and territories.

2. General Hydrologic Studies: Examples of some of the more important studies accomplished under this program are: determination of rainfall-runoff relationship in urban areas; general hydraulic model calibration; snow cover surveys; and adaptation of hydrologic programs to CADD equipment. Significant work was completed on regional frequency studies within the Ohio River basin.

3. Sedimentation Studies: All of the funds allotted to this sub-item assisted in financing the Corps share of the cooperative Interagency Sedimentation Project at the Hydraulics Laboratory, Waterways Experiment Station.

4. Streamflow and Rainfall Data: Stations funded under this sub-item are generally established and operated several years prior to anticipated authorization for project-type activities, in order to provide a background of observed data on which to base the planning and design of projects. Progress continued at these gage sites to collect hydrometeorological data in flood prone areas to document historical flood and calibration of hydrologic models.

COORDINATION: The storm studies are prepared by USACE commands and are reviewed by the National Weather Services in the preparation of probable maximum precipitation estimates for the Corps. The Interagency Sedimentation Project is conducted cooperatively, and jointly funded, by eight Federal agencies. Information concerning streamflow and rainfall data collection by the Corps under this activity is made available to the U.S. Geological Survey and the National Weather Service.

APPROPRIATION TITLE: Investigations, FY 2012

- 2. Collection and Study of Basic Data
 - c. Other Programs
 - (3) International Waters Studies

SCOPE: The Boundary Waters Treaty of 1909, the Niagara River Treaty of 1950, the Columbia River Treaty of 1961, and other less formal agreements between the Governments of the United States and Canada are concerned with the regulation, control, and use of boundary waters. Under the Boundary Waters Treaty of 1909, the International Joint Commission (IJC) was established and empowered to establish local boards, which conduct investigations and assure adherence to orders of approval pertaining to use of boundary waters issued by the Commission. Corps of Engineers representatives serve on and chair the U.S. Sections of the following IJC Boards: Saint Croix River, Champlain-Richelieu, Lake Champlain, St. Lawrence River, Niagara, Lake Superior, Lake of the Woods, Rainy Lake, Souris-Red Rivers Engineering, Souris River Control, Kootenay Lake, and Osoyoos Lake. Under separate treaties, Corps representatives serve on and chair the U.S. Sections of the Columbia River Treaty Permanent Engineering Board, the Permanent Engineering Board Committee, the Columbia River Treaty Entities, the Columbia River Treaty Operating Committee, the International Niagara Committee, and the International Lake Memphremagog Board. These Boards and Committees hold joint meetings, review report drafts and correspondence, make field inspections, obtain, collect, and analyze hydrologic and hydraulic data, and report their findings to the establishing parties. The degree of study activity varies depending upon the requirements of the Commission or Treaty under which they were established. These efforts assure better control, use, and orderly development of the jointly controlled water resources, and are of importance in attempting to meet water demands resulting from an expanding economy along the United States-Canadian border. Studies are closely related to the Corps of Engineers' Civil Works program and are summarized in the Assistant Secretary of the Army for Civil Works' Annual Report.

SUMMARIZED FINANCIAL DATA:

Allocation Requested for FY 2012	200,000
President's Budget for FY 2011	200,000
Change in FY 2012 from FY 2011	0

JUSTIFICATION:

The amount requested for FY 2012 will fund Corps of Engineers participation in assisting the U.S. Government meet its obligations under provisions of boundary water treaties and other international agreements between the United States and Canada. CELRD provides support for implementation of the Niagara Treaty of 1950 that governs the split of Niagara River Waters between the U. S. and Canada, and between the uses of the waters.

APPROPRIATION TITLE: Investigations, FY 2012

2. Collection and Study of Basic Data

c. Other Programs

(3) International Waters Studies (continued)

Northwestern Division engages in activities associated with implementation of the Columbia River Treaty and the Kootenay Lake and Osoyoos Lake Boards of Control. CENWD, together with Bonneville Power Administration and British Columbia Hydro annually develop the Assured Operating Plan and the Detailed Operating Plan for the Columbia River Treaty storage projects. Funds also are used to support the work of the Columbia River Treaty Permanent Engineering Board, including publication of its annual report to the Governments. North Atlantic Division is engaged in support of the Saint Croix River Board of Control and the Gulf of Maine Council on the Marine Environment. Work in the Saint Croix R. Basin involves retrieval and analysis of water data to assure compliance with IJC rules and annual inspection of dams and fish passage facilities.

The Corps will continue to carry out its multiple responsibilities to the various IJC Boards of Control and to the several Treaty entities, boards and committees. During FY 2012, additional flow data will be obtained and used to update the rating curve used to verify compliance with Niagara Treaty requirements. In addition, pursuant to the October 1999 Plan of Study for Lake Ontario regulation improvements, the IJC established the Lake Ontario-St. Lawrence River Study Board. Investigations are continuing as the fifth year of a 5-year effort. A Plan of Study for evaluating the Lake Superior regulation criteria outflows is being developed for approval by Governments. A basin-wide hydrologic and regulation model will be implemented. Special studies related to international impacts of evaluation of endangered species compliance related to Columbia River Treaty projects will be continued by CENWD. CENAD will continue normal work in support of the Saint Croix Board of Control and the Gulf of Maine Council on the Marine Environment. Discussions are ongoing with the IJC on expansion of the IJC's mission to include environmental objectives, as described in the report entitled "The IJC and the 21st Century". The Corps will be supporting the IJC as it executes the reference from the governments regarding investigating the feasibility of establishing a demonstration watershed board and its implementation of the reference on diversion, consumption and transfer of international waters. The need and capability in this area exceeds the requested budget amount.

ACCOMPLISHMENTS:

The Corps Division and District commanders and their staffs met all of their many and diverse responsibilities in representing the United States on the previously listed IJC Boards of Control and Treaty entities, boards and committees. The IJC-sponsored special flood damage reduction study of the Red River Basin was closed without completing the full scope of the planned work because of lack of funds from the United States. CEMVD worked with the International Red River Board on the biota assessment for the Devils Lake basin and also supported an interagency modeling and review effort on the Red River of the North mainstem. CELRD has been very active in multiple Great Lakes IJC boards. CENWD continues to coordinate operations of Libby Dam under the 2001 Libby Coordination Agreement. CENWD participated as part of the U.S. Entity to prepare all Columbia River Treaty required Assured Operating Plans (AOP) and resultant Determinations of Downstream Power Benefits (DDPB). The U.S. Entity finalized the annual Detailed Operating Plan (DOP) that may produce results more advantageous to both countries for the current operating year.

APPROPRIATION TITLE: Investigations, FY 2012

- 2. Collection and Study of Basic Data
 - c. Other Programs
 - (2) Precipitation Studies (National Weather Service)

SCOPE: This is the Hydrometeorological Studies Program conducted for the Corps of Engineers by the National Weather Service (NWS). The Corps transfers funds to NWS who performs analyses of storm rainfall and other meteorological data required to develop hydrologic criteria for use by the Corps in planning, design and water control management of flood control and water resources development projects, and in floodplain management studies.

SUMMARIZED FINANCIAL DATA:

Allocation Requested for FY 2012	225,000
President's Budget for FY2011	225,000
Change in FY 2011 from FY2012	0

JUSTIFICATION: The scientific services provided by the National Weather Service under this program consist of: (1) continued update, revision and publication of precipitation frequency estimates for portions of the United States and U.S. regional dependencies. These studies shall be published as volumes in NOAA Atlas 14, and made available online through the Precipitation Frequency Data Server web portal; (2) Maintaining of the Precipitation Frequency Data Server web portal; (3) Preparation of the annual report on nationwide flooding and associated assessment of damages. Funds in the amount of \$225,000 will be required in FY 2012 to continue the program at a level consistent with Corps needs. The entire cost of the Corps hydrometeorological studies program is funded under this budget item.

With the technology and systems for updating precipitation frequency demonstrated, we now stand ready to update precipitation frequency estimates for the rest of the U.S. and its dependencies. With expected funding of \$225K, efforts in FY 2012 will be to continue the update and revision of the precipitation frequency estimates for NOAA Atlas 14. Additionally, the NWS will be producing areal reduction factors for the U.S. and maintains the Precipitation Frequency Data Server web portal and prepares an annual report on nationwide flooding.

ACCOMPLISHMENTS: With limited funding of \$225,000 in FY11, the NWS completed the update of precipitation frequency estimates for the State of Hawaii and initiated updates and revision of precipitation frequency estimates for the State of California, U.S. Pacific Islands, Southeastern states, Midwestern states, and Alaska Also, the Precipitation Frequency Data Server (PFDS) web portal was maintained with high availability. PFDS serviced over 50,000 requests for precipitation frequency estimates in FY08. The annual report on nationwide flooding and associated assessment of damages was prepared and delivered.

COORDINATION: This program is fully coordinated with the National Weather Service, Office of Hydrologic Development. For the precipitation-frequency study of the Ohio River basin region, the Corps assisted the NWS to obtain significant cost-sharing from the states in the region. The Corps will attempt to obtain cost sharing from the states and other federal agencies for the remaining states.

APPROPRIATION TITLE: General Investigations, FY 2012

2. Collection and Study of Basic Data

c. Other Programs

(8) Remote Sensing Systems Support

This item supports the overall technology transfer requirement of the Corps Civil Works Program for Remote Sensing systems, which is the responsibility of the Engineer Research and Development Center (ERDC), through its Remote Sensing/Geographical Information Systems (GIS) Center of Expertise. Located in Hanover, New Hampshire.

SUMMARIZED FINANCIAL DATA

Appropriation Requested for FY 2012	\$75,000
Appropriation for FY 2011	\$150,000
Increase of FY 2012 from FY 2011	-\$75,000

AUTHORIZATION: Various authorities including Public Law 110–114. These efforts are necessary to provide remote sensing and geospatial data for efficient management of Congressionally authorized projects, to meet the performance requirements of the Presidents Management Agenda (PMA), to supply data for programs that are rated by the Program Assessment Rating Tool (PART), as well as to respond to specific public laws, including the National Levee Safety Program, the Government Paperwork Elimination Act (GPEA) and Clinger-Cohen/IT Management Reform Act.

JUSTIFICATION: The Remote Sensing/GIS Center is the USACE Center of Expertise for Civil Works Remote Sensing and GIS technologies, providing mission essential support to Civil Works programs. The Center provides cost-effective centralized management and support through technology transfer and applications development for Corps mission responsibilities in all business practice areas: navigation, flood and coastal storm damage reduction, hydropower, regulatory, environment, emergency management, recreation, water supply, and work for others. An enterprise GIS approach is an essential component of this support. Continuing interaction with other researchers and practitioners throughout the USACE, government, the private sector, and academia assures that state-of-the-art and state-of-the-practice knowledge of evolving trends that are relevant to USACE activities are available, and that duplication of effort is avoided.

Declines in manpower require working smarter, better, and faster. Contributing to this effort, the Center develops approaches for the integration of data from the disparate sources necessary for comprehensive and collaborative land and water resources management including: basin-wide studies; water control; support to emergency management; and compliance with the attendant environmental regulations and related policies. The Center promotes state-of-the-art sensors, data collection, analysis, and storage systems, building on commercial software, and integrating these with operational technologies which are then delivered to the USACE divisions, districts, and other agencies' activities. The Center provides guidance and technical support to the USACE Geospatial Community of Practice (CoP), including no-cost support to USACE elements having problems that can be solved in less than 3 days. The Center also provides supports to other CoPs requiring geospatial or remote sensing information, including the remote sensing, hydrology, hydraulics and coastal, levee safety and emergency management sub-CoPs. This ensures that appropriate linkage to the geospatial technologies is available.

The existence of the Center ensures that the necessary support can be rapidly directed toward solving operational problems that require specialized expertise. The PROSPECT training program in remote sensing and GIS, managed by Center staff, provides another avenue for the transfer of knowledge to those who are, or soon will be, using these technologies. Training also is conducted in the field through workshops, conferences, and distance learning. White papers, pilot projects, USACE and other publications, including Engineering Letters, Circulars, and Manuals, and the Internet, also are used to transfer procedures and lessons learned to end users.

PROJECTED ACCOMPLISHMENTS IN FY 2012:

1. As the Center of Expertise, serve as key resource and technology point of contact for the Corps of Engineers for Civil Works remote sensing and GIS.
2. Continue to expand GIS and remote sensing capabilities to maintain technical leadership for critical USACE programs such as the National Levee Database and HQ Unified Operating Center (UOC) during emergencies.
3. Provide guidance and technical support to the USACE Geospatial Community of Practice (COP),
4. Support one-stop service requests from USACE districts and divisions related to remote sensing and GIS.
5. Provide technical support to USACE district offices for the development of implementation plans for geospatial data, including water control and closer coordination with other agencies.
6. Provide leadership and technical support to strategic and enterprise USACE geospatial initiatives.

ACCOMPLISHMENTS IN FY 2011:

1. As the Center of Expertise, served as key resource and technology point of contact for the Corps of Engineers for Civil Works remote sensing and GIS.
2. Provided guidance and technical support to the USACE Geospatial Community of Practice (COP) and provided leadership to the remote sensing, hydrology, hydraulics and coastal, levee safety and emergency sub-COPs, which have technical issues that are related to the geospatial technologies.
3. Supported one-stop service requests from Corps districts and divisions. For example, the high-profile National Levee Database and the Levee Inspection System were built on Center experience and knowledge.
4. Provided leadership and technical support to strategic and enterprise USACE geospatial initiatives: District and Division E-GIS support; Missouri River Restoration Project; Corps Water Management System; Geospatial Operations and Maintenance Business Interlink (gORM) development and implementation; Real Estate Management Information System; National Inventory of Dams; Corps Project Notebook; Access to Water Data; Emergency Management Remote Sensing, GIS, and Modeling Group; Watershed Investment Decision Tool; and Hydrology and Hydraulics modeling software development and support team member.
5. Provided technical support to Corps District offices for the development of implementation plans for geospatial data management including development of enterprise of geospatial data approaches. Conducted frequent geospatial technology web-seminars for Corps offices. This support includes discussions with district personnel concerning current and desired approaches, consideration of what is occurring in all divisions in the district, and enterprise issues.

APPROPRIATION TITLE: Investigations, Fiscal Year 2012

Collection and Study of Basic Data

Scientific and Technical Information Centers

SCOPE:
Five information analysis centers (coastal engineering, cold regions engineering, concrete technology, hydraulic engineering, and soil mechanics) located at the U. S. Army Engineer Research and Development Center provide the major interface between the Corps of Engineers and the public and private sectors to gather and disseminate information as required by PL 99-802, Federal Technology Transfer Act of 1986. The function of each center is to acquire, examine, evaluate, summarize, and disseminate newly published scientific and technical information generated within the Corps of Engineers and other activities in the U.S. and abroad.

SUMMARIZED FINANCIAL DATA:

Allocation Requested for FY 2012	\$50,000
President's Budget for FY 2011	\$50,000
Change in FY 2012 from FY 2011	0

JUSTIFICATION:
Public Law 99-802, Federal Technology Transfer Act of 1986, requires technology transfer from Federal agencies to the private sector. In addition, both the Department of Defense and the Department of the Army have objectives of supporting the information needs of engineers and scientists and eliminating unnecessary duplication of R&D. The specified information centers, supported by their host laboratories, critically evaluate and summarize the technical validity and merits of published and unpublished research and technical publications on design, construction, or other technology utilization. User communities have been well established and distribution lists for technology transfer are continuously updated. Electronic media including the World Wide Web are used where appropriate. The effectiveness of activities and services is evaluated on a continuing basis, and technology transfer products and methodology are revised when appropriate. Priority for services will be given to deployed troops, Corps of Engineers staff, and other government personnel.

These centers are a major technology transfer resource between the public, the US scientific and engineering community, and academia for results of over 75 years of research results conducted by the ERDC laboratories in the fields of soil mechanics and foundation engineering, cold regions engineering, concrete technology, hydraulic engineering, and coastal engineering. Each center is supported by multi-disciplinary technical staff and has a comprehensive library of materials that have been published over the years. In a typical year, each Center responds to hundreds of information requests on subjects within its purview. These services are free to the users. In addition, services such as literature research, information synthesis, publication location, research reviews, and methodology comparisons on subjects of mutual interest to ERDC laboratories and other interested parties are available on a cost-reimbursable basis.

APPROPRIATION TITLE: Investigations, Fiscal Year 2012

Collection and Study of Basic Data

Scientific and Technical Information Centers (Continued)

FY 2012 Proposed Activities:

The Corps makes wide use of the Internet for technology transfer. The Internet is widely accessible by both the public and private sectors and provides rapid transfer, at significant cost savings, of technical data, general information on ongoing studies, technical notes, and ultimately technical reports. Through the Information Analysis Centers, several thousand technical inquiries are received and addressed annually via various internet and personal contact actions. Inquiries are received from Federal, state, and local government activities, universities, private sector engineers and scientists, and citizens. Responses range from furnishing a copy of a report, arranging to speak with an expert, furnishing generalized technical advice, or giving updates on technical developments. The Centers also digitize older ERDC research reports of significant technical value and place them on the internet for ready access by the public.

<u>Information Analysis Centers</u>	<u>FY 2012</u>
Coastal Engineering	\$10,000
Cold Regions Engineering	10,000
Concrete Technology	10,000
Hydraulic Engineering	10,000
Soil Mechanics	<u>10,000</u>
	\$ 50,000

COORDINATION:

The Information Analysis Centers and their host Laboratories distribute reports, technical notes, computer programs, GIS data, abstracts, information bulletins, and other scientific and technical information to the Defense Technical Information Center (DTIC), Corps libraries, depository libraries, and identified user communities to ensure wide circulation and availability. Homepages are maintained on the Internet for public accessibility. Reports are also available for searching through the Corps Library Program's computer system LS/2000. DTIC publicizes reports through its own DOD database and forwards the reports to the National Technical Information Service (NTIS), Department of Commerce. NTIS places reports into a compendia of Selected Water Resources Abstracts and an annual cumulative edition, with conveniently indexed and cross referenced identification of what is being or has been done in water resources research and related scientific and engineering fields by whom, where, and when.

APPROPRIATION TITLE: Investigations, Fiscal Year 2012

2. Collection and Study of Basic Data

c. Other programs

(1) Stream Gaging (U.S. Geological Survey)

SCOPE: The Corps of Engineers cooperates with the U.S. Geological Survey in this effort, and contributes funds for all or part of the cost of the operation and maintenance of about 2,500 stations that are of special importance to the Corps mission. The Corps established this continuing, cooperative program in March 1928, so that streamflow data would be available to meet special needs concerning the Corps water resources responsibilities.

SUMMARIZED FINANCIAL DATA:

Allocation Requested for FY 2012	600,000
President's Budget for FY 2011	600,000
Change in FY 2012 from FY 2011	0

JUSTIFICATION: The Corps of Engineers makes extensive use of streamflow records in the planning, design, construction, and operation of water resources projects. The Basic network of stream gaging stations operated by the Geological Survey under its normal functions without support from the Corps is inadequate to meet all the special needs of the Corps water resource development responsibilities. Accordingly, a cooperative program was established under which funds are transferred to the Survey to cover, partially, the cost of operating specific stations. In the optimum development and management of water resources, it is essential that continuous records of streamflow be maintained at specific sites over a long period of years to provide a reliable measure of water resources available for various uses. This budget item targets the non-project portion of the cooperative program. To continue the operation of stations of special interest to the Corps, an estimated total of \$17,600,000 will be required by the U.S. Geological Survey during FY 2012, exclusive of funds received from other cooperative sources. The operation and maintenance cost of these stations will be financed from two sources, as follows: (1) \$600,000 from this budget item for stations not directly attributed to the Corps projects; and (2) approximately \$17,000,000 from Corps funds budgeted elsewhere for authorized projects and studies. The basic program will remain at the same level as in previous years. The need and capability in this area exceeds the requested budget amount.

ACCOMPLISHMENTS: Records for the streamflow stations supported by transfer of funds are used primarily to operate Federal flood reduction projects. In the past ten years these projects have reduced flood damages by an average of \$21 billion annually. Not only are these gages used by the Corps, but 100 percent of the data are used by the National Weather Service as the basis for its public flood forecasts. In addition, the data are published on the Internet by the Corps and/or in a regular series of reports by the U.S. Geological Survey and provide valuable information for many Federal and state agencies and the public.

COORDINATION: This program is fully coordinated with the U.S. Geological Survey. Costs for conducting the work are compiled by representatives of the Survey to identify a basis for the transfer of funds to that agency.

**Collection and Study of Basic Data
Transportation Systems**

SUMMARIZED FINANCIAL DATA:

Allocation Requested for FY 2012	350,000
President's Budget for FY 2011	350,000
Change in FY 2012 from FY 2011	0

JUSTIFICATION: The Transportation Systems Program supports Corps Districts and HQUSACE in accomplishing navigation project planning and evaluating responsibilities through the provision of information and technical support. The process of planning improvements for waterway and harbor navigation projects necessitates consideration of needs, opportunities, benefits, and economic costs of project improvements in the context of the project-specific areas as well as the overall national transportation system. The Transportation Systems Program is managed by CECW-P through CEIWR and is a continuing effort to ensure the development of viable and practical analytical techniques, sources of information, tools and methods including the development of deep draft and shallow draft vessel operating and replacement cost data; provision of timely information regarding world deep draft vessel fleet, commodity, and cargo flow forecasts; the publication of reports documenting the results of research associated with the Transportation System Analysis Program; the provision of technical services and support to District and Division offices and Headquarters personnel. Goals include: (1) to improve the technical quality, accuracy and consistency of navigation planning studies and procedures; (2) to improve the strategic planning of navigation improvements; and (3) to reduce the costs of individual navigation studies through shared data and methodologies. Funding for the Transportation Systems program has been considerably reduced since FY 04, resulting in a loss of technical resources to support the program and reduced capability to support the needs of Corps navigation planners.

ACCOMPLISHMENTS: FY 2011 accomplishments include: Update and distribution of shallow and deep-draft vessel operating costs guidance including investigation of life-cycle hull asset costing procedures and practices; updated bunkering costs with posting to HQUSACE Homepage; continued activities for drafting a deep-draft vessel operating cost applications manual; secured and distributed macroeconomic and transportation forecast information from Global Insight and Informa Economics, Inc.

ACTIVITIES FOR FY2012: The \$350,000 requested in FY 2012 for Transportation Systems is sufficient only to update vessel operating costs. Funds will be used to continue to develop, improve, and provide inland and ocean-going vessel operating costs used to estimate transportation cost reductions or efficiencies (i.e., benefits) for Corps navigation studies. At current funding levels the Transportation Systems program can no longer provide products previously developed for Corps planners including: subscriptions for commodity and fleet forecasts; rail, barge and truck models for use in estimating transportation cost savings; or consulting and technical support services to Corps offices. Increased funding will be essential in future years if the technical and analytical capabilities provided under the Transportation Systems program are to be restored.

Research and Development

The Corps must pursue an aggressive R&D effort to take advantage of rapidly developing technologies and techniques that will promote significant monetary savings and greater reliability, safety, enhanced efficiency, and environmental sustainability in planning, design, construction, operations and maintenance of civil works activities.

The Civil Works R&D program is formulated to directly support the established Business Lines of the Civil Works Program including: flood and coastal storm damage reduction, inland and coastal navigation, environment (including natural resources, compliance, mitigation, restoration, and stewardship), water supply, hydropower, recreation, emergency management, and regulatory. The Civil Works R&D needs and requirements are identified based on the current Civil Works Program Strategic Plan, Corps division and district input, and the existing WRDA authorities. Corps R&D examines new ideas, develops approaches, techniques, and technology to solve problems, and transfers field-ready products. The request for \$17,252,000 of General Investigations funds for the FY 2012 program would accomplish the very highest priority R&D needs. Additional high priority requirements identified above the base program by practicing District and Division technical experts and by HQUSACE proponents are incorporated into the program as funding becomes available. Examples funded in FY 2011 include engineering analysis of the impact of vegetation on levee safety and performance, flood and coastal storm surge risk analyses, engineering models for assessing coastal storm impacts, economic models for analyzing container ships operation at deep-draft ports, developing improved ecological planning models, and improved strategies for technology support and transfer. The FY 2012 program will continue to support R&D that will lead to better management of our nation's infrastructure, promote public safety, reduce risk, improve operational efficiencies, sustain the environment, and position our water resource systems to be both managed as systems and for adaptation due to the implications of climate change.

Results of the Corps' GI R&D are directly incorporated into practice within the Civil Works Program through revisions or additions to Engineer Regulations, Engineer Manuals, Technical Guidance Manuals, Engineer Technical Letters, or Guide Specifications. Numerous other means of technology transfer are also used such as training courses, workshops, demonstrations, and other professional contacts. The Corps Civil Works R&D Program provides essential Product Lines with field ready end products and a high return on investment for the Corps, other Federal agencies and the Nation.

AUTHORIZATION: Authorization for ERDC to conduct R&D is codified in 10 U.S.C. 2358 ("The Secretary of Defense or the Secretary of a military department may engage in basic research, applied research, advanced research, and development projects that are necessary to the responsibilities of such Secretary's department in the field of research and development.")

COORDINATION:

The Corps conducts Civil Works R&D through the U.S. Army Engineer Research and Development Center (ERDC) and the Institute for Water Resources (IWR). The ERDC consists of seven research laboratories:

- Coastal and Hydraulics Laboratory, Vicksburg, MS
- Cold Regions Research and Engineering Laboratory, Hanover, NH
- Construction Engineering Research Laboratory, Champaign, IL
- Environmental Laboratory, Vicksburg, MS
- Geotechnical & Structures Laboratory, Vicksburg, MS
- Information Technology Laboratory, Vicksburg, MS
- Topographic Engineering Center, Alexandria, VA

Research and Development (Continued)

The IWR is located in Alexandria, VA, and it's Hydrologic Engineering Center (HEC) in Davis, CA. Policy guidance and executive oversight are provided by the Civil Works R&D Steering Committee co-chaired by the Director of Research and Development and the Deputy Director of Civil Works and comprised of CW division chiefs. The Director of Research and Development is responsible for developing the annual program. The Directors of ERDC and IWR are responsible for execution of the CW R&D program.

In order to most effectively use the limited R&D resources and to avoid unnecessary duplication of research effort, the Civil Works R&D Program maintains external technical exchange and technology transfer efforts with other Federal and major water resource agencies including the TVA, Bonneville Power Administration, Western Area Power Administration, EPA, NSF, Department of Agriculture (NRCS), Park Service, NOAA, DOI (USBR, Forest Service, FWS, USGS, DHS (USCG, FEMA, US Border Patrol), DOT (FHWA, FAA, MARAD), NASA, International Boundary Water Commission, International Joint Commission, DOE (NRC, FERC), the Navy, and state and local governments.

Corps researchers also maintain contact with the research activities of universities and industry through regular membership in such organizations as the American Society of Civil Engineers, the Civil Engineering Research Foundation, the American Concrete Institute, the American Society of Testing and Materials, the International Conference on Coastal Engineering, the American Association of Port Authorities, the American Society for Photogrammetry and Remote Sensing, Society of Environmental Toxicology and Chemistry, the Coastal Society, the Offshore Technology Conference, International Society of Soil Mechanics and Foundation Engineering, U.S. Society of Dams, and International Committees on Large Dams, the International Association for Hydraulic Research, the Association of American Geographers, Western Dredging Association and the International Navigation Association. The Corps also participates extensively with the Transportation Research Board, the Water Science and Technology Board, and the National Research Council in coordinating and leveraging research activities.

Research and Development (Continued)

SUMMARIZED FINANCIAL DATA:

Allocation Requested for FY 2012	17,252,000
Allocation for FY 2011	16,892,000
Change in FY 2012 from FY 2011	+360,000

The proposed FY 2012 R&D Program is structured to directly support the Civil Works Business Lines, their mission requirements and established performance objectives at project, watershed or river basin scales. The technical foundation of the R&D program includes:

- a. Navigation (including Hydropower)
- b. Flood and Coastal Storm Damage Reduction (including Emergency Management, Water Supply, and Recreation)
- c. Environmental (including Regulatory)
- d. Basic Research (funded within in the 3 business area programs budget lines)

The System-Wide Water Resources Program (SWWRP) was completed in FY 2011. This program was a limited-life, technology development and integration program that has provided the Corps of Engineers and its partners with improved capabilities to balance human development activities with the natural system in a sustainable manner through regional management and restoration of the Nation's water resources over broad temporal and spatial scales. This program integrated scientific and technological tools across business areas and levels of detail with the intention of providing the Corps of Engineers and the nation with the capacity to assess and manage water resources at the system scale. The capabilities provided include science-based water resource management methodologies, implementation guidance, computational frameworks and technologies, and decision support. These capabilities are built from sound scientific principles reflecting an improved understanding of inter-relationships among key system attributes such as hydrology, hydraulic processes, geomorphology, chemistry, ecology, and socioeconomic. Capabilities have been fielded via a seamless, integrated architecture that allows projects to be considered at multiple scales during project planning, design, construction, operation, and maintenance. This research was pursued through extensive partnering and collaboration with federal and state resource management agencies, academia, and the private sector. There was active technology transfer through workshops and demonstration projects. The products and continuing technical support developed through this program will continue within the 3 business area programs in FY 2012 (Navigation, Flood and Coastal, and Environmental).

An additional change in from FY 2011 is that the Water Resources Infrastructure Program was consolidated within the Flood and Coastal Program and no longer appears as a separate program. This work primarily addressed requirements of the Dam Safety and Levee Safety Programs. Both the Dam and Levee Safety Programs utilize risk based procedures to account for uncertainties and to provide a framework for making risk informed decisions. This research supported those risk-based procedures through improved tools and techniques to enhance the current decision making process and will continue and be further enhanced within the Flood and Coastal program. Finally, the Basic Research Program activities will continue, but they also will be budgeted within the three business area programs in FY 2012 (Navigation, Flood and Coastal, and Environmental). Due to the unique process and activities associated with conducting and managing Basic Research, this program is described separately within this document.

Research and Development (Continued)

Navigation (including Hydropower)

The Corps provides inland and coastal navigation critical to the national economy and defense. Navigation research delivers environmentally sustainable products that improve efficiency, reliability, and capacity of this complex, aging transportation/power network. The research framework integrates infrastructure engineering, power physics, economics, innovative construction, coastal and riverine hydrodynamics and processes, monitoring and sensing technologies, operations research, environmental solutions, and emerging technologies to create effective solutions in concert with the multiple demands, requirements, and constraints of real world commodity transport and power production problems. Research efforts target navigation channels, locks, jetties, breakwaters, harbors, dams and power plants to optimize among life-cycle and reliability trade-offs, assure defensible economic assessment, and provide better investment decision tools for predicting performance and deterioration with time, and for scheduling and prioritizing maintenance and repairs balanced with the consequences of delays. Essential to this effort is the development of tools for determining the condition of infrastructure components to make risk-based prioritizations for funding. R&D efforts for development of condition index products include: Developing a standardized method and associated computer program for life-cycle engineering analysis of coastal rubble mound breakwaters, Improved Condition Indexing for Coastal Structures, Monitoring of Concrete Navigation Structures, Inspection and Condition Assessment of Steel Hydraulic Structures, and Condition Monitoring and Predictive Maintenance for Infrastructure. Significant investment has also been directed toward developing improved navigation economic technologies that can be used to support better informed decision analyses and management of the United States inland and deep-draft navigation system.

Flood and Coastal Storm Damage Reduction (including Emergency Management, Water Supply, and Recreation)

Corps projects across the Nation prevent flooding and coastal storm damage. In the daily and seasonal operation of hundreds of Corps projects, national requirements for water supply and opportunities for recreation and environmental stewardship are also balanced. The Nation expects the Corps to guarantee that its existing projects maximize efficiency and effectiveness, and that new projects incorporate the most advanced knowledge and capabilities in planning, design, construction, operation, and maintenance. Through R&D, the Corps develops technology that optimizes daily operations of water resources projects to meet multiple objectives, including water supply and environmental stewardship. Through R&D, the Corps creates new solutions to challenging infrastructure engineering problems in building, maintaining, upgrading, and operating the Nation's water resources infrastructure such as dams, locks, spillways, levees, dikes, and beaches. Through R&D, the Corps provides guidance and tools to understand the natural setting of water resource projects, to incorporate environmental & economic objectives, to manage flood risk, to assess alternative solutions, and to make optimal decisions. The technological requirements of emergency management are addressed to make possible the most rigorous planning and preparedness and the most efficient and effective response and recovery.

Environmental (including Restoration, Regulatory and Stewardship)

The Corps has ecosystem restoration and environmental stewardship and management responsibilities on more than 11 million acres of land and water resources. Due to the enormous scope of this mission, it is imperative that Corps field personnel be able to apply the latest technologies for ecosystem restoration and natural resource inventory. The scale of these activities ranges from large projects such as the Louisiana Coastal Area and the Everglades down to much smaller, local wetlands/stream restoration projects. The broad scope of these environmental activities (as well as the frequent changes to the legislative mandates that govern them) demands sound research and development to address these critical needs. The goal of this R&D is to provide cost-effective/innovative technologies for project planning, design, engineering/construction and operation/maintenance. Product lines include: Ecosystem Restoration, Ecosystem Functional Assessment (with an emphasis on Environmental Assessment and Evaluation) and Environmental Stewardship and Management. Products include concise, how-to guidance documents that provide rapid/low-cost technologies and methods for high priority field needs as well as sophisticated ecological process assessment models that are critical to the success of the Corps' Ecosystem Restoration business line.

Research and Development (Continued)

Basic Research

The objective of the Civil Works Basic Research area is to gain greater knowledge and understanding of the fundamental aspects of phenomena related to water resources. This effort will consist of farsighted and higher risk research with the potential for broad applications. Basic Research in Civil Works is structured to provide physical, engineering, environmental, social, and life sciences support to the major Corps of Engineers missions of reducing flood and coastal storm risk; facilitating navigation; and restoring and sustaining the environment. Basic Research activities directly support the 3 business area programs as specific strategic research activities that target fundamental scientific investigation requirements of those business areas. Basic Research is budgeted within the 3 business areas oriented research programs.

APPROPRIATION TITLE: Investigations, Fiscal Year 2012

Research and Development (Continued)

PROJECTED CIVIL WORKS R&D FUNDING ALLOCATIONS (FY 2012)

<u>BY RESEARCH AREA</u>	<u>FY 2012 ALLOCATION</u>
a. Navigation (including Hydropower)	\$ 6,764,000
b. Flood and Coastal Storm Damage Reduction (including Emergency Management, Water Supply, and Recreation)	\$ 5,886,000
c. Environmental (including Regulatory)	\$ 4,602,000
d. System Wide Water Resources	\$ 0 (completed in FY 2011)
e. CW Basic Research	\$ 0 (funded within the 3 business areas in FY 2012)
f. Water Resources Infrastructure	\$ 0 (conducted within the Flood and Coastal Area in FY 2012)
g. Congressionally directed: Submerged Aquatic Vegetation	\$ 0
h. Congressional directed: Technology Demonstrations for urban flooding in NV	\$ 0
	<u>\$17,252,000</u>

a. Commercial Navigation

SUMMARIZED FINANCIAL DATA:

Allocation Requested for FY 2012	6,764,000
Allocation for FY 2011	3,939,000
Change in FY 2012 from FY 2011	2,825,000

a. Commercial Navigation (Continued)

JUSTIFICATION:

The Corps' commercial navigation mission facilitates navigation through investments in waterborne transportation systems (channels, harbors, and waterways) that are cost-effective and environmentally sustainable. The U.S. Marine Transportation System (MTS) consists of over 300 ports, 1,000 harbor channels, and 25,000 miles of navigation channels. The MTS is already operating at near-full capacity in many areas and is being challenged by new vessel designs and traffic loads that exceed its channel, harbor, and lock capacities. Over 50 percent of the Corps' 191 lock sites (240+ locks) have been in service for more than 50 years. Research and Development (R&D) can help reduce the costs associated with delays due to closures for both scheduled and unscheduled repairs, as well as reduce the risk of catastrophic failure of a major infrastructure component.

This R&D area provides advanced and innovative tools and technology for the Corps to improve navigation functional performance, reduce unit costs, and improve safety. The Corps is expected to apply robust, reliable, and comprehensive capabilities to assess all impacts of alternative plans for projects and to select the most balanced and sustainable solutions. R&D delivers efficient and effective capabilities to plan, design, construct, operate, maintain, and upgrade transportation projects in inland and coastal locations and in all climates, from warm to ice-affected. Capabilities to improve system reliability are needed in an asset management framework to extend project life and reduce life cycle costs. Engineering and environmental aspects are integrated in the development of processes and design models, decision support software, infrastructure condition assessment techniques, risk frameworks, infrastructure and design guidance, and innovative monitoring, operation and maintenance technologies.

FY 2012 PROPOSED ACTIVITIES:

1. **Keep the IMTS Locks Reliable and Resilient.** R&D efforts to determine the condition, extend the life, and enable rapid repair of aging IMTS infrastructure.
 - a. Research, develop, adapt, and test composite material for rapid repairs.
 - b. Enhance finite element modeling capabilities of Locks and approach walls.
 - c. Expand Non-Destructive Testing capabilities for steel & concrete.
2. **Keep the Coastal Navigation Structures Reliable and Resilient.** R&D efforts to determine the condition, extend the life, and enable rapid repair of aging and storm-impacted infrastructure.
 - a. Initiate development of a nationwide consistent navigation structure risk-based functional condition assessment.
 - b. Initiate transition from expert elicitation condition index assessments with science and engineering based analysis capabilities and tools.
 - c. Enhance quantitative risk-based structure condition assessments.
3. **Maximize Navigation Environmental and Economic Benefits.** Develop new science and engineering tools that supports the synergy required to maximize the simultaneous production of environmental and economic benefits connected to navigation infrastructure and its operation.
 - a. Design tools so that environmental benefits are "automatically" or most efficiently produced.
 - b. Develop the ability to design and predict performance of environmental features and enhancements that increase the resilience and performance of navigation infrastructure systems.
4. **Connect Navigation Data with Data from Other Agencies.** Develop a navigation data integration framework that sustains data lifecycle use and management of the range of data used for project operation and maintenance decision support.
 - a. Design and develop a distributed, service oriented architecture, including standards and data formats and protocols.
 - b. Develop web based tools and capabilities to support and deploy the DIF.

a. Commercial Navigation (Continued)

5. **Design an Efficient National Coastal Marine Transportation System.** Create a new paradigm comprised of major ports, feeder ports, and regional intermodal freight movement. Develop a risk-based capability that incorporates coastal hazards and supply chain dynamics to predict regional scale navigation channel shoaling, navigation structure condition, dredging, and project maintenance requirements.
 - a. Develop engineering and science-based tools incorporating sediment, flood, and wind hazards to predict future conditions.
 - b. Consider an economic tool that supports risk calculations.
 - c. Design a framework of models and tools to support calculations and to couple models, communicate risk and visualize results.

FY 2011 ACCOMPLISHMENTS:

- Completed initial upgrade to Boussinesq Modeling Toolbox (BMT), which increased accuracy of wave and current predictions in channel and harbor design, increasing vessel and operator safety and quantifying impacts to adjacent shorelines and structures.
- Completed initial evaluation of non-linear acoustic technique for use in finding micro cracks in the underwater portion of steel navigation structures. This tool, when fully developed, will allow some inspection of navigation lock gates to be done without de-watering, resulting significant cost reductions and greatly reducing disruptions to inland navigation traffic.
- Initiated efforts with the goal of minimizing negative economic impacts through improved reliability of lock systems.
- Initiate work to improve risk-based design tools for navigation system components, with the goal of developing models that more accurately predict the effectiveness of design decisions in a variety of conditions resulting from the changing climate.
- Provided tools and techniques to operational engineers for monitoring the state of non-exposed members within structures essential to navigation and public safety, thus improving the engineer's ability to manage physical assets.
- Developed systems to objectively assess the condition of structures and utilize these data within risk-based asset management tools to provide engineers and planners information necessary to develop and execute life cycle management plans.
- Generated a design guidance review in which all lock culvert valve types were researched and evaluated, providing field engineers a consolidated source for valve design guidance and identifying designs where improvements could be made.
- Developed capability to generate and provide predicted river current information in the vicinity of navigation structures by leveraging Automated Identification System (AIS) technology, improving the safety for river navigation traffic through communication of relevant information.
- The Container Suite of Tools was fielded for beta testing. Field support was provided. Model corrections, modifications and desired improvements were made. Tool documentation and user's guides were updated.

b. Flood and Coastal Systems

SUMMARIZED FINANCIAL DATA:

Allocation Requested for FY 2012	5,886,000
Allocation for FY 2011	3,214,000
Change in FY 2012 from FY 2011	2,672,000

JUSTIFICATION:

The Corps of Engineers is responsible for more than 600 dams, operates over 400 major lakes and reservoirs, maintains 8,500 miles of levees, and has over 100 coastal storm-damage reduction and related projects associated with its Flood and Coastal Storm Damage Reduction mission. Flooding that occurs in the United States costs about \$4 billion annually. Without the Nation's investment in flood and coastal storm damage reduction infrastructure through the Corps, that cost would be many times higher. Over the years, Corps flood protection projects have prevented an estimated \$706 billion in damages, most of that within the last 25 years. The cumulative cost of building and maintaining these projects to date is \$119 billion; therefore, every dollar spent on flood protection has prevented more than six dollars in damage. Despite this protection, annual damages in flood plains continue to rise due to changes in land use and urban development. In addition, the 2000 census showed that more than 50% of the U.S. population lives within 50 miles of a coast and is therefore vulnerable to dangerous coastal storms and costly flooding. Consequently, over the past several years, Federal shore protection expenditures increased to more than \$100 million per year to protect the public and related economic investments.

The Corps manages existing water resources projects around the country to maintain a flood-protection infrastructure for the public's welfare. Simultaneously, the Corps balances requirements for hydropower, water supply, environmental stewardship, and recreation. As enabling technologies are developed, the Corps must upgrade and improve water resource projects, use the most advanced capability to assess the risk of alternative operational scenarios, and apply robust, reliable, and comprehensive capabilities to assess the economic and environmental effects of alternative plans for projects and to select the most balanced and sustainable solutions. R&D delivers efficient and effective capabilities to plan, design, construct, operate, maintain, and improve water resource projects in all climates and settings, from warm to ice-affected, and from inland to coastal.

Capabilities that prevent loss of life, minimize property damage, and reduce the life-cycle costs of projects are critical. These capabilities include advanced processes and design models, economic models and decision support software, infrastructure condition and risk assessment tools, infrastructure design guidance, innovative operation and maintenance technologies, flood-alert instrumentation and expedient emergency response capabilities, and the capability to take advantage of new real-time data sources (e.g. precipitation radar) to accurately forecast real-time flow and stages.

This R&D component provides advancements in hydrologic and hydraulic simulation, water resources project optimization, tools for effective alternative analyses for solutions, infrastructure safety, structural design and performance, and assessment of the risk and uncertainty associated with project designs. The extensive infrastructure portfolio that makes up the Nations' flood risk management system includes many components that have exceeded their original design life or otherwise have been challenged by excessive conditions of nature or man. This work researches, develops, and fields innovative solutions to promote infrastructure sustainability and maintenance, affordable repair and rehabilitation, comprehensive monitoring and testing programs, and extensions in the reliable service life. This R&D component also improves the technology available to emergency managers for emergency planning, preparedness, response, recovery, and assessment.

b. Flood and Coastal Systems (Continued)

FY 2012 PROPOSED ACTIVITIES:

1. **Emergency Management and Critical Infrastructure.** R&D efforts to enhance national interoperable systems for use in emergency operations during floods and coastal storms.
 - a. Real-time or near real-time data acquisition, analysis, reporting capability via integrated data management systems for improved early warning.
 - b. Technologies and tools to more effectively and efficiently implement USACE National Response Plan missions and contingency operations.
 - c. Rapid assessment of water resources infrastructure projects technologies.
2. **Coastal Systems.** R&D efforts to support the Corps and stakeholder roles in sustainable coastal management.
 - a. Research critical physical, social and ecological processes unique to coastal and estuarine systems.
 - b. Reduce uncertainty of prediction of coastal storm physical processes and affects on coastal systems, and improved storm synthesis and analysis tools for risk assessment and design parameter characterization.
 - c. Linking or coupling of coastal, estuarine and upland/riverine models and decision support tools for comprehensive multipurpose project planning and implementation.
 - d. Methodology and integrated framework of tools for comprehensive risk assessment highly urbanized coastal floodplains including characterization of the hazard, failure and consequences.
3. **Optimize Alternatives Analysis and Assess Project Risk and Uncertainty.** R&D efforts to develop water resources project collaborative planning and risk assessment technologies and decision support tools.
 - a. Stochastic methods and decision support framework to evaluate project alternative measures with regard to system response to loadings, failure and consequences (economic, social and environmental).
 - b. Life loss computation capabilities for levee breaches.
 - c. Expedient methods for estimating damages prevented, improved performance metrics and risk based performance metrics for flood risk management and coastal storm damage projects.
 - d. Evidence-based coastal storm damage functions and improved depreciated replacement values.
 - e. Determination of structure content values from secondary sources.
 - f. Probabilistic lifecycle cost analysis methods and tools.
4. **Hydraulics and Hydrology and Integrated Water Resource Management Tools.** R&D efforts to continue to develop and enhance H&H tools in support of project planning, design and risk assessment.
 - a. Engineering tools to comprehensively address pluvial, riverine and coastal flooding for planning and implementation of flood risk management and ecosystem restoration projects in highly urbanized watersheds.
 - b. Development/enhancement of 1-, 2- and 3-D models to simulate integrated hydraulic, hydrologic, sedimentation, water quality and ecologic processes at various spatial and temporal scales.
 - c. Improvement of data management, integration frameworks and decision support tools in support of multi-purpose project planning and implementation.
5. **Water Resources Infrastructure.** R&D efforts to determine the condition, extend the life, provide efficient repair, and enable probabilistic analysis of aging infrastructure.
 - a. Levee stability and performance.
 - b. Guidance for application of in situ and remote monitoring of structures, particularly earthen structures, such as levees.
 - c. Guidance for overtopping protection due to surge, and wave actions.
 - d. Innovations that promote infrastructure sustainability and lower-cost maintenance
 - e. Rapid and efficient repair and rehabilitation

b. Flood and Coastal Systems (Continued)

FY 2011 ACCOMPLISHMENTS:

- Released operational modeling framework for improved capability to evaluate flood risk management project performance with regard to system response, loadings, project failure and consequences.
- Initiated enhancements to flood impact analysis tools for improved prediction of loss of life from levee breaches, and research of social response to catastrophic warning.
- Released operational coastal storm modeling framework and advanced individual framework for improved prediction of coastal storm waves, inundation and erosion.
- Developed improved understanding of the physical interaction of coastal storm waves with wetland and upland vegetation for improved prediction of coastal storm impacts and project design.
- Development of a generalized code for optimizing application of joint probability analyses of coastal storm waves, water levels and winds for project design and risk assessment; extended the development of a proof-of-concept storm database and visualization tool to include storm analysis and simulation tools, and modeled storm data.
- Demonstrated baseline reservoir sedimentation assessment methodologies and provide improved guidance for reservoir sediment management.
- Released updated operational reservoir simulation software with standardized method for computing reservoir firm yield.
- Initiated work to provide tools and decision support framework for prediction of risk-based project lifecycle performance.
- Initiated work to provide capability to assess project performance in the context of actual damages and risk of future damages.
- Developed guidance to determine when it is necessary to evaluate existing flood risk management projects with a risk analysis approach based on changing physical, socio-economic and environmental conditions.

c. Environmental

SUMMARIZED FINANCIAL DATA:

Allocation Requested for FY 2012	4,602,000
Allocation for FY 2011	2,797,000
Change in FY 2011 from FY 2010	1,805,000

JUSTIFICATION:

Since the Water Resources Development Act of 1986, there have been dramatic increases in authorized ecosystem restoration studies, projects and programs. At the same time, the Corps has continued to operate and maintain 25,000 miles of inland and coastal navigation waterways, 5,500,000 surface acres of reservoirs, 237 navigation locks, over 1300 ports and harbors, 75 hydropower projects, 879 flood control projects, and thousands of acres of adjacent lands as part of its water resource mission. Wide-ranging environmental compliance, management, and restoration efforts have become crucial parts of the Corps water resource management mission. The Corps must consider environmental issues related to the operation and maintenance of its existing projects as well as the restoration of degraded ecosystems. In addition, the Corps must proactively address potential negative environmental impacts resulting from proposed activities. This research area addresses the Corps' highest priority environmental issues through the development and application of state-of-science, cost-effective, time-saving technologies including: 1) guidance for improved ecosystem restoration tools and techniques for rivers, streams and riparian zones; 2) engineering & biological technologies for the quantitative benefits assessment of aquatic resources, and 3) retrospective analysis of past ecosystem restoration projects to assess actual vs. modeled functional restoration. These user-oriented products will provide scientifically defensible and field validated solutions to the Corps' highest priority environmental problems. They will also reduce unnecessary regulatory burdens, provide environmental benefits, and maintain a high return on taxpayer investment.

Quantifying the environmental benefits and ecological outputs of proposed Corps ecosystem restoration projects is essential for decision makers to be able to select those projects that will yield the highest social, economic and environmental services. The scientific community has criticized current state-of-the-science assessment approaches regarding the underlying model assumptions, oversimplified relations, excessive data requirements, complexities in integrating impacts, and the lack of meaningful metrics to permit biologically-effective decisions. Moreover, current assessments are static and frequently insensitive to important system dynamics, not applicable across multiple scales, and incapable of predicting future conditions. Corps decision makers need robust assessment tools that incorporate modern ecosystem principles are easy to apply, offer significant user flexibility to meet individual project requirements, and that provide quantifiable output relevant to the Corps' Performance Measures. These environmental benefits analysis tools will be provided in brief user-focused technical guidance documents, web-based decision support systems, webinars (interactive web presentations between R&D Scientists and Engineers and Corps Practitioners), classroom and CD/internet based training, and product technical support as required. Additional high priority research and investments in developing Ecosystem Planning Models and in Submerged Aquatic Vegetation research will be conducted as funding becomes available.

c. Environmental (Continued)

FY 2012 PROPOSED ACTIVITIES:

1. **Maximize Value of the Corps' Aquatic Ecosystem Restoration Program to the Nation.** Advance the Corps' capabilities to maximize beneficial socio-ecological outcomes of aquatic ecosystem restoration at regional and national levels.
 - a. Develop capability to use ecosystem services to quantify and evaluate ecosystem service benefits that accrue from Corps ecosystem restoration at project through program levels.
 - b. Provide structured decision making tools and capabilities to quantitatively address risk and uncertainty in planning and design of ecosystem restoration projects.
 - c. Develop technical guidelines for monitoring and adaptive management of ecosystem restoration projects.
 - d. Provide tools to evaluate and forecast project impacts and environmental benefits at a watershed scale.
 - e. Enhance field capability to perform planning level environmental assessment using the latest tools, techniques and methods.
2. **Ensure Ecological Integrity and Sustainability of Aquatic Ecosystem Restoration Projects.** Develop new science and engineering tools to substantially improve and apply hydro-geomorphic and biotic components of ecosystem restoration projects and to promote ecosystem integrity and sustainability of Corps ecosystem restoration projects.
 - a. Develop methods and tools to restore dynamism to stream channel, riparian and wetland systems.
 - b. Develop capabilities to design and forecast dynamic response trajectories of selected ecosystems at a watershed scale; e.g., EFM.
 - c. Evaluate the ecological outcomes and performance (success) of past Corps ecosystem restoration projects.
3. **Improve Capabilities to Design and Implement Aquatic Ecosystem Restoration in Urban Settings.** Develop ecological engineering tools and capabilities to maximize restoration benefits, including multi-purpose benefits, in urban settings.
 - a. Develop conceptual models, metrics and evaluation tools to design urban stream restoration projects and incorporate risk probabilities and trade-offs for multi-purpose projects.
 - b. Provide engineering techniques and protocols for successful and sustainable restoration projects in urban settings.
 - c. Develop protocols for monitoring and adaptive management of urban projects.
4. **Enhance Resilience and Reliability of Coastal Ecosystem Restoration.** Develop tools, guidelines and capabilities to incorporate risk and uncertainties associated with climate change and sea level rise on coastal ecosystem restoration and multi-purpose projects that include restoration and coastal flood damage reduction.
 - a. Provide capability to assess project performance to include potential impacts from Climate Change and Sea Level Rise (SLR).
 - b. Evaluate the effects of SLR on salt water intrusion and ecological shifts.
 - c. Provide capabilities to estimate wetland primary productivity as a means of offsetting SLR.
 - d. Develop measures for promoting sediment accretion to offset SLR.
 - e. Deposition of materials as a means of offsetting SLR.
5. **Impact and Relationship of Species (Threatened and Endangered and Invasive) on Ecosystem Restoration.** Advance the Corps' capabilities to detect, monitor and evaluate key species that significantly influence restoration activities.
 - a. Research and Develop rapid detection and monitoring of T&E species within ecosystems, e.g., eDNA biomarkers for sturgeon.
 - b. Improve modeling capabilities for critical species, e.g., oysters in the Atlantic and Gulf Coast.
 - c. Develop management capabilities to reduce impact of invasive species on restoration activities.

c. Environmental (Continued)

FY 2011 ACCOMPLISHMENTS:

- Demonstrated Environmental Benefits Analysis (EBA) tools on on-going and completed ecosystem restoration projects.
- Completed final draft guidelines for Corps' EBA guidebook and toolkit.
- Provided guidelines for determining cumulative effects of multiple ecosystem restoration projects for alternatives analysis.
- Developed scientific guidelines – based on demo projects – for determining project limits for select restoration goals.
- Provided a retrospective assessment of Corps ER projects to evaluate the performance of state-of-the-practice tools, techniques, and methods.
- Developed guidelines for EBA model development, reference systems metrics, and structured decision making tools.
- Developed proposed programmatic metrics for comparing ecosystem restoration projects at regional and national scales.
- Developed user guidelines for determining the range of natural dynamism in ecosystem structure and function.
- Developed guidance to evaluate potential project impacts and benefits to Atlantic and Gulf oyster communities.
- Initiated development of capability to assess potential project impacts and environmental benefits at a watershed scale.
- Developed science-based guidelines to streamline the significance scoring used to prioritize ecosystem restoration projects.
- Initiate development of environmental DNA biomarkers for sturgeon species.

d. Basic Research

SUMMARIZED FINANCIAL DATA:

Allocation Requested for FY 2012	0
Allocation for FY 2011	1,625,000
Change in FY 2012 from FY 2011	funded within 3 Business area research programs

JUSTIFICATION:

The Civil Works Basic Research program is structured to meet needs not addressed in the application oriented business area R&D program. These programs emphasize applied research and demonstration activities. The objective of the Civil Works Basic Research program is to gain greater knowledge and understanding of the fundamental aspects of phenomena related to water resources. This effort consists of farsighted and higher risk research with the potential for broad applications. Basic Research in Civil Works is structured to provide fundamental science and technology support to the major Corps of Engineers missions of reducing flood and coastal storm risk; facilitating navigation; and restoring and sustaining the environment. Successful investigations could lead to subsequent applied research and technology advancement and improved functional capabilities in water resources science and engineering. USACE laboratories will conduct basic research that challenges accepted theory or empirical assumptions and thus providing fundamental advancement in water resources, infrastructure, and environmental scientific foundations. In FY 2011 and prior years the focus areas that formed the basis for soliciting and prioritizing proposals for the Civil Works Basic Research program were: Computational and Information Sciences, Human Dimensions of Water Resources Management and Decision Making, Material and Transport Processes, Ecological Processes, Structures and Infrastructure Systems, and Variability and Change in Water Resource Systems. A rigorous solicitation and competitive peer review process (including independent external reviewers) is used to determine those research activities selected for

funding. The Corps intends to commit up to 10% of the R&D budget for basic research in FY 2012, distributed within the three business line research programs. Each Basic Research work package selected for funding will last no more than 3 years.

Focus areas for the Civil Works Basic Research Program are developed and periodically modified to address basic research needs as they become apparent. The first organization of the Basic Research Program used six focus areas over the FY 2008 to FY 2011 time period. For FY 2012, Basic Research was refocused into three new focus areas based on contemporary problems and problems anticipated in the near future. The focus areas described below form the basis for soliciting and prioritizing proposals for basic research activities performed by the laboratories and centers.

1. **Ecological Implications of Sea Level Change, Climate Variability, and Anthropogenic Activities.** The impacts of sea level change, climate variability, and anthropogenic activities on our environment are poorly understood and cannot be reliably predicted using existing simulation technologies. Existing technologies typically employ simplistic methods to simulate complicated physical, chemical, and biological process interactions. Basic research is needed to quantify critical processes and implement methods that can accurately predict future conditions. New process understanding and simulation technologies are needed that address hydrologic cycle forcing, associated water quality reactions, and resulting ecological impacts. The science and technology developed will support verified and validated simulation processes and procedures that can be integrated into the Corps' enterprise suite of models that support each of the business areas.
2. **Near Real Time Autonomic Condition Assessment of Levees and Dams.** Basic research is needed to explore new methodologies that can assess the condition of thousands of miles of levees and hundreds of dams throughout the Corps. These methods should address the need to assess large geospatial domains quickly and efficiently so as to detect or predict conditions that could cause catastrophic failures. The assessments should consider the fidelity of sensing and analysis methods needed for accurate prediction as well as the costs to deploy systems and analysis methods on a large regional scale. Ultimately, these methods would support management for levees, dams, and other similar infrastructure. This topic supports each of the Corps' business areas.
3. **Innovative Approaches for Simulating Coastal and Estuarine Hydrodynamic and Transport Processes.** Basic research is needed to develop new capabilities and improve existing tools that are used in storm damage reduction projects, offshore and estuarine channel deepening projects, the management of sediments and CDFs, and the geomorphologic evolution of beaches, barrier islands, and coastal inlets. This capability is essential for predicting sedimentation rates in coastal channels, beach profile evolution, fate of dredged material placed in the near shore, prediction of barrier island breaches, and related environmental effects. The research should be focused on developing process-based predictive capabilities for the near shore region. Areas of interest include, but are not limited to, a robust and fully-coupled handling of waves, currents, sediment transport (cohesive and non-cohesive), and morphological changes; wave/current interaction in unstructured computational domains; and wetting and drying methodologies that are accurate, robust, and computationally efficient. The overall purpose is to develop verified and validated simulation processes and procedures that can be integrated into the Corps' enterprise suite of models that support each of the business areas.

FY 2012 PROPOSED ACTIVITIES:

- Complete research package on a new approach for predicting and modeling phytoplankton blooms.
- Complete research package on efficient resolution of complex transport phenomena using eulerian-lagrangian techniques.
- Continue research package on micro scale simulation and up scaling for flow through vegetation and porous media.
- Initiate 5-6 new research projects.

d. Basic Research (Continued)

FY 2011 ACCOMPLISHMENTS:

- Completed a research package that developed an intelligent linear solver system for scalable parallel solutions of large-scale surface and subsurface flow and transport problems.
- Completed a research package that improved understanding of fish feeding in complex aquatic environments using agent-based algorithms coupled to CDF models.
- Completed a research package on quantifying time-varying wall shear stress in simulated wave-current environments.
- Completed a research package on diversification of project portfolios for nonsystematic risks of variability and change in water resource systems.
- Continued a research package on a new approach for predicting and modeling phytoplankton blooms.
- Continued a research package on efficient resolution of complex transport phenomena using eulerian-lagrangian techniques.
- Initiated a research package on micro scale simulation and up scaling for flow through vegetation and porous media.

e. System-Wide Water Resources

This program was completed in FY 2011. Funding previously dedicated to this program has been distributed to the three business line programs to support previously fielded SWWRP products and for the future development of system-scale water resource analysis and management technologies.

FY 2011 ACCOMPLISHMENTS

- Program completed, all products have been completed and fielded.
- Ownership, continuing support and product maintenance transferred to other program areas.
- Deployed suite of decision support systems for water resources management.
- Deployed geospatial toolkit for watershed assessments.
- Deployed suite of data management tools for multiple databases.
- Deployed suite of watershed modeling tools with sediment and nutrient transport capabilities.
- Deployed watershed hydrology and transport models coupled with vegetation model.
- Deployed suite of ecosystem forecasting models.
- Deployed suite of groundwater modeling tools.
- Deployed coupled 1-D and 2-D reservoir models.
- Deployed suite of riverine hydraulic models with sediment and nutrient transport.

1. Surveys

c. Special Studies

Study	Total Estimated Federal Cost	Allocation Prior to FY 2011	President's Budget Request for FY 2011	Tentative Allocation FY 2012
National Flood Risk Management Annual Program		7,972,000	2,000,000	3,000,000

Scope

The Nation faces a growing flood risk crisis with extensive existing development and new development locating in flood prone areas, often behind aging levee systems not intended to protect large populations. Furthermore, through ongoing updates to Federal flood insurance rate maps and the development of the National Levee Database, many communities are learning that they are situated behind inadequately maintained levees no longer providing the levels of flood risk reduction for which they were designed. Confronted with both immediate and future risks to human safety, public infrastructure and private investments, states and communities are seeking and expecting Federal assistance to manage their flood risks.

The National Flood Risk Management Program (NFRMP), supported by this line item, makes the most of existing Federal agency programs and funding to assist states and communities in identifying and addressing flood risks by leveraging agency resources, identifying opportunities to jointly implement complementary programs, sharing data and knowledge, and eliminating duplicative or conflicting activities or policies. The NFRMP also supports these same types of coordination activities between Federal agencies and non-Federal flood risk management agencies in order to ensure that federally funded mitigation activities are coordinated with and complement State and local programs and policies that affect flood risks through their influence on land use choices and adoption of flood risk mitigation measures.

Since its inception in 2006, the NFRMP has established partnerships at the Federal, regional, and state levels through which regular and sustained coordination occur. Fiscal Year 2012 funding and beyond will build on these successful pilot efforts to reach communities nationwide. Specifically, the range of continuing activities involved in this effort includes

- At the national level, sustaining the work of the Intergovernmental Flood Risk Management Committee (IFRMC) and supporting the activities of the newly reconvened Federal Interagency Floodplain Management Task Force (FIFM-TF). Quarterly meetings of the IFRMC provide an opportunity for FEMA and USACE leadership to coordinate programs and policies, and thus improve program implementation for the flood risk management community. Additionally, the IFRMC provides an opportunity for key stakeholder groups representing the non Federal perspective, including the Association of State Floodplain Managers (ASFPM) and the National Association of Storm and Floodwater Management Agencies (NAFSMA), and the Association of State Dam Safety Officials (ASDSO) to provide both agencies direct feedback on specific policy and implementation issues faced at the state and local level. The FIFM-TF, co-chaired by USACE and FEMA, is a national level task force of agency representatives from Federal agencies with major water resource programs. The task force is responsible for updating and maintaining a Unified National Program for Floodplain Management; coordinating Federal agency policies for flood risk management; and identifying and recommending actions and policies by the Federal government necessary to reduce losses due to flooding

- and protect the safety of flood plain residents.
- At the regional level, sustaining the activities of the existing Upper Mississippi Regional Flood Risk Management Team and establishing additional new teams covering the Northwest, Mid Atlantic and Southeast regions of the nation. USACE-led Regional Flood Risk Management teams provide a venue for interagency and intergovernmental coordination at the regional level to manage flood risks by integrating pre-flood mitigation with a long-term strategy to plan and implement pre- and post-flood emergency actions, while developing promising nonstructural alternatives and other flood risk mitigation actions.
- At the state level, providing direction and oversight to the Silver Jackets program as it transitions from a pilot effort under the NFRMP to a permanent and expanding program leveraging multiple funding sources to offer a team in each State. Silver Jackets teams bring together Federal agency representatives at the state level to develop and implement solutions to state flood risk management priorities by assisting state agencies and local communities in leveraging information and resources, improving public risk communication, and creating a mechanism to collaboratively solve flood risk management issues and implement initiatives at the State and local levels.
- Developing and initiating a management framework to improve internal communication between USACE's HQ and Districts and FEMA's HQ and Regions on flood risk management policy, practices and guidance.
- Developing tools and methods for communicating flood risk and encouraging public involvement in flood risk management planning.

Priorities across the multiple activities included in this scope will be set by the USACE Senior Executive National Flood Risk Management Program Steering Committee and FEMA. Input from key stakeholder groups, such as the Association of State Floodplain Managers (ASFPM) and the National Association of Flood and Stormwater Management Agencies (NAFSMA), will be taken into consideration when setting these priorities.

JUSTIFICATION:

Nationwide, States and communities urgently seek Federal assistance in addressing a growing flood risk crisis. Extensive existing development and newly developing areas are located in flood prone areas, many behind aging levee systems not intended to protect large populations. Furthermore, through ongoing updates to Federal flood insurance rate maps and the development of the National Levee Database, many communities are learning that they are situated behind inadequately maintained levees no longer providing the levels of flood risk reduction for which they were designed.

At a time of historic demands on Federal resources, USACE, FEMA and other Federal agencies with a role in managing flood risks, recognize the need to pool their expertise and leverage their resources to more cost-effectively assist states and communities in developing near-term interim risk reduction measures. Such efforts are also yielding long term Federal cost savings as Federal and non-Federal agencies coordinate programs to establish a foundation for future state and local capability to implement long term flood risk management strategies that will ultimately reduce reliance on Federally funded disaster assistance and investments in new, large scale flood control works.

Through the National Flood Risk Management Program (NFRMP), Federal and non-Federal partners have already experienced several successes cooperatively developing flood risk mitigation solutions by leveraging agency resources, identifying opportunities to jointly implement complementary programs, sharing data and knowledge, and eliminating duplicative or conflicting activities or policies. These accomplishments are described below.

FY 2006 thru 2011 Accomplishments:

Throughout Fiscal Years 2006-2011, accomplishments in directing the National Flood Risk Management Program include:

- Cooperating with FEMA, other Federal agencies, and states to start up a Silver Jackets program, with intergovernmental teams initiated in 20 states and an additional 29 states engaging in discussions to develop teams. By establishing state level teams including representatives of multiple Federal and State agencies, the Silver Jackets program has created the opportunity for optimized delivery of Federal services as well as significant costs savings through leveraging information and resources, increased and improved public risk communication, and combined efforts to address flood risk management challenges. Specific interagency examples include data sharing across agencies to support mapping studies, combined and coordinated use of models, gage data and databases housed in different agencies to create a flood inundation model allowing for more effective flood response and mitigation, synthesis of existing studies and knowledge from different agencies to develop a comprehensive flood risk mitigation plan for a community without requiring any new study effort, and community recovery through short and long term mitigation strategies focused on nonstructural approaches and planning assistance.
- Establishing a permanent, standing Upper Mississippi Regional Flood Risk Management Team (RFRMT) to facilitate interagency coordination at the regional level to integrate long-term flood risk mitigation planning with pre- and post-flood emergency actions. The team has focused, in particular, on identifying nonstructural alternatives to reduce flood risk with the region. Examples of team successes include the elevating or removal of USACE lease cabins incurring repetitive losses and claims on the National Flood Insurance Program and the development of a non-structural alternative to a proposed structural repair by combining the use of different agency programs.
- Reconvening the Federal Interagency Floodplain Management Task Force (FIFM-TF) to provide a forum for Federal coordination and discussion, to develop a common approach among Federal agencies when implementing water resource authorities and programs, and to harmonize communication messages and strategies.
- Establishing the Intergovernmental Flood Risk Management Committee regular, quarterly meetings to provide FEMA and USACE leadership the opportunity to coordinate programs and policies, and thus improve program implementation for the flood risk management community. Additionally, the quarterly meetings have provided an opportunity for key stakeholder groups representing the non-Federal perspective to provide both agencies direct feedback on specific policy and implementation issues faced at the state and local level. As one example of the benefits of this national level agency coordination, the IFRMC provided a critically needed forum for agency leadership to fully coordinate the USACE nation-wide levee inventory and assessments, improvements to the USACE levee inspection program, and USACE levee certification policies with FEMA's levee accreditation policies and nationwide flood map modernization program (Map Mod).
- Convening policy discussion forums involving experts in flood risk management from the private sector as well as Federal and non-Federal agencies and leading in the development of new policy and guidance to address institutional, policy and planning barriers to effective flood risk management.
- Initiating work to improve flood risk communication and ensure public involvement in flood risk management planning, working in coordination with Federal and non-Federal flood risk management partners.
- Working with communities to identify options to remediate deficient levees or otherwise address the resulting public safety hazards in a comprehensive flood risk management planning context.

FY 2012 Activities:

- At the regional level, sustaining the activities of the existing Upper Mississippi Regional Flood Risk Management Team and establishing

additional teams covering the Northwest, Mid Atlantic and Southeast regions of the nation. USACE-led Regional Flood Risk Management teams provide a venue for interagency and intergovernmental coordination at the regional level to manage flood risks by integrating pre-flood mitigation with a long-term strategy to plan and implement pre- and post-flood emergency actions, while developing promising nonstructural alternatives and other flood risk mitigation actions.

- At the national level, sustaining the work of the Intergovernmental Flood Risk Management Committee (IFRMC) and supporting the activities of the newly reconvened Federal Interagency Floodplain Management Task Force (FIFM-TF). Quarterly meetings of the IFRMC provide a venue for FEMA and USACE leadership to coordinate programs and policies, and thus improve program implementation for the flood risk management community. Additionally, the IFRMC provides an opportunity for key stakeholder groups representing the non Federal perspective, including the Association of State Floodplain Managers (ASFPM) and the National Association of Storm and Floodwater Management Agencies (NAFSMA), and the Association of State Dam Safety Officials (ASDSO) to provide both agencies direct feedback on specific policy and implementation issues faced at the state and local level. The FIFM-TF, co-chaired by USACE and FEMA, is a national level task force of agency representatives from Federal agencies with major water resource programs. The task force is responsible for updating and maintaining a Unified National Program for Floodplain Management; coordinating Federal agency policies for flood risk management; and identifying and recommending actions and policies by the Federal government necessary to reduce losses due to flooding and protect the safety of flood plain residents.
- At the state level, directing and overseeing the Silver Jackets program as it transitions from a pilot program under the NFRMP, to a permanent, expanding program leveraging separate funding sources to offer a team in each State. Silver Jackets teams bring together representatives of Federal agencies at the state level to develop and implement solutions to state flood risk management priorities by assisting state agencies and local communities through leveraging information and resources, improving public risk communication, and creating a mechanism to collaboratively solve flood risk management issues and implement initiatives at the State and local levels.
- Developing and initiating a management framework to improve internal communication between USACE's HQ and Districts and FEMA's HQ and Regions on flood risk management policy, practices and guidance.
- Developing tools and methods for communicating flood risk and encouraging public involvement in flood risk management planning.

APPROPRIATIONS TITLE: General Investigations, FY 2012

Independent Peer Review

	Allocation for FY 2010	President's Budget FY 2011	Budget Amount FY 2012
External Peer Review	852,000	700,000	500,000

SCOPE:

Funds will be used to implement the independent (external) peer review (EPR) requirements as authorized in Section 2034 of the Water Resources Development Act (WRDA) of 2007 (PL 110-114). EPR requirements apply to pre-authorization feasibility studies and various other applicable studies as defined in WRDA 2007, the Information Quality Act, and associated Corps guidance. EPR costs are 100 percent Federal and generally will not exceed \$500,000 per review. EPR is required for studies that will recommend projects exceeding \$45 million in total costs, as well as studies where there is substantial risk to public safety, which employ novel methods, engender controversy, or meet other conditions as described in the legislation and regulations.

JUSTIFICATION:

Independent (or External) Peer Review is a statutory requirement.

APPROPRIATION TITLE: Investigations, FY 2012

National Shoreline

Study	Total Estimated Federal Cost	Allocation Prior to FY 2011	Budget FY 2011	Tentative Allocation FY 2012	Additional to Complete After FY 2012
National Shoreline	9,000,000	3,518,000	375,000	175,000	4,836,000

SCOPE:

The study is an interagency effort to describe the extent and cause of shoreline erosion and accretion on all the coasts of the United States and describe the economic and environmental impacts of that erosion and accretion. The study will analyze and recommend the appropriate level of Federal and non-Federal participation in shore protection and beach nourishment, and the advisability of using a systems approach to sediment management for linking the management of all (shore protection, navigation channel dredging, and environmental restoration and preservation) projects in the coastal zone so as to conserve and efficiently manage the effects of erosion.

ACCOMPLISHMENTS:

The study was initiated with FY2002 funding. The Fiscal Year FY 2011 efforts included:

- 1) The study produced a detailed analysis of the North Atlantic Region as a prototype for the rest of the study in FY 2010 and that report will be reviewed and finalized during FY 2011.
- 2) The study continued to support Corps participation in the systematic approach to sediment management reflected in the Corps Regional Sediment Management (RSM) process, regional coastal coalitions from which coastal policies are evolving and emerging, and Corps studies and participation in USGS and NOAA studies describing the state of the Nation's shores, describing systematic movement of sand along the Gulf Coast, and incorporate of the shoreline metadata into the National Coastal Databank. This effort is focused in the four eastern regions and in California.
- 3) The study produced a quick overview assessment of the four eastern regions in 2010 and the four western regions in 2011, with a set of tentative conclusions about the future of shore protection and sediment management, as a starting point for engaging the states and other Federal agencies in a new dialogue about coastal protection and systems approaches.
- 4) This study is supporting and monitoring the prototyping of a systems approach to the construction and operation of existing Corps coastal protection projects in the North Atlantic region, as a possible operational mode for shore protection projects in the future and expanded the concept into the south Atlantic region as well.
- 5) Working closely with USGS and NOAA, the study began to prepare a detailed assessments of the California and Great Lakes shorelines..
- 6) The study supported a case study of shoreline management history and Corps engagement at the Mouth of the Columbia River in Oregon and Washington, as a history of how coastal engineering and sediment management have changed and might evolve in the future.

JUSTIFICATION:

FY 2012 funding would continue work on this study. The Fiscal Year 2012 efforts would include:

1. \$50,000 to assess the application of a systems approach to shore protection project management and the preparation of a prototype regional shoreline management study.
2. \$25,000 to support the continued production of regional case studies.
3. \$100,000 to continue to assess shore change and impacts in California and the Great Lakes. Completion is scheduled for 30 Sep 2025.

APPROPRIATION TITLE: Investigations, Fiscal Year 2012

Planning Support Program (PSP)

SCOPE: The U.S. Army Corps of Engineers Civil Works Program requires a strong planning program to address the full range of complex water resource problems within its mission responsibilities and to better serve the Nation now and in the future. The Planning Support Program (PSP) was established in FY 2008. This program integrates various initiatives in response to Section 216 recommendations, Corps reform initiatives, and the Corps' Campaign Plan. The program has retained its priority but has received only limited funding (from various sources). The PSP strengthens the capabilities of the Planning Community of Practice (PCoP) to deliver approvable decision documents to Congress in response to identified water resource priorities. The PSP is a vital link to developing the world-class public engineering organization and technical leadership envisioned for the Corps in its Campaign Plan and the Civil Works Strategic Plan.

Congress recognized the need to maintain a strong planning program when it stated in the Water Resources Development Act (WRDA) of 1986 (P.L. 99-662, Sec. 936):

“The Secretary shall study and evaluate the measures necessary to increase the capabilities of the United States Army Corps of Engineers to undertake the planning and construction of water resources projects on an expedited basis and to adequately comply with all requirements of law applicable to the water resources program of the Corps of Engineers.”

In WRDA 2000, Section 216, Congress asked the National Academies to review Corps' planning and project review practices. In its recommendations, the National Research Council (NRC) of the National Academies recognized the many challenges and water resource planning and management controversies facing the Corps. The NRC recommendations are shaping the Corps today and the PSP is critical to moving the Corps and the PCoP forward in response to those recommendations.

WRDA 2007, Section 2033(e) allowed establishment of Centers of Specialized Planning Expertise within the Corps that would provide technical and managerial assistance for project planning, development, and implementation; peer reviews of new major methods, models, or analyses used in feasibility studies; and support independent peer review panels. Section 2033(e) authorization endorsed and accentuated the importance to the six national Planning Centers of Expertise (PCX) established by the Director of Civil Works in August 2003. With added emphasis of the WRDA each of the PCXs has a key role in maintaining and strengthening the core competencies of the Planning Community of Practice.

The ASA(CW) sent a memorandum to the DCG CEO on February 24, 2009 counseling about the considerable variation in the quality of decision documents, feasibility reports and Chief's reports resulting from inconsistent understanding of basic planning and policy among MSC and RIT members. The ASA(CW) was clear that technical and process consistency must be restored. The ASA(CW)'s views continued support to Corps planning and policy training and to leadership development “as key commitments that pay valuable dividends” – he specifically cites the Planning Associates Program as an example. PCXs are also crucial resources for providing technical and process consistency.

APPROPRIATION TITLE: Investigations, Fiscal Year 2012

SUMMARIZED FINANCIAL DATA:

President's Budget for FY 2011	\$2,100,000
Budget Amount for FY 2012	\$3,100,000
Increase of FY 2012 over FY 2011	\$1,000,000

JUSTIFICATION: The PSP has three major components, which together provide necessary support to improve the long term capabilities of the Planning Community of Practice (CoP). The three components--planner capability and training; specialized planning centers; and planner resources. Two of these components are described below with their estimated funding requirements.

1. Planner Capability and Training. The Planning CoP is a hub of learning for its practitioners who are now no longer limited by geography. The expertise of the community is bound in its members who share best planning practices, test innovative solutions, and coach and mentor as a Learning Organization. Development of a capable workforce to execute the mission today and in the future is a top priority of the Planning CoP leadership.

The Planning Associates (PA) Program is an advanced training program for journeyman level water resource planners in the Corps. The program has a long history but was reinvented in 2003 to include 20 instructional units held at various locations and extending over 1-3 week increments for 11 months. The goals of the program are to broaden the planners' competencies in solving complex water resources problems; to strengthen their leadership skills; and to retain critical planner capability as they progress toward expert planner. Since 2003, 85 planners have completed this rigorous training and 11 more are enrolled in current class. An amount of \$2,100,000 will centrally fund a class of up to 12 students and support instructor and other field related expenses necessary to deliver this demanding and rigorous program.

2. In August 2003, the Director of Civil Works designated six national Planning Centers of Expertise (PCX) to enhance Corps planning capability for inland navigation, deep draft navigation, ecosystem restoration, coastal and storm damage reduction, flood damage reduction, and water management and reallocation. The Centers have key roles in maintaining and strengthening the core competencies of the Planning CoP; providing technical assistance, conducting or managing peer review; transferring the latest technology or methodologies and sharing lessons learned and best practices throughout the planning community. The Centers focus planning expertise to improve product quality and corporate accountability and will also be instrumental in implementation of new approaches or methods resulting from the Corps' Campaign Plan. The PCXs are essential to preparation of the Water Resource Priorities Report directed by Section 2032 of WRDA 2007. Fully functional PCXs are indispensable resources in developing Planning Process Improvements; establishing feasibility study benchmarks; and, modifying regulations for Calculation of Benefits and Costs for Flood Damage Reduction Projects, and formulation and evaluation of alternatives as required by Section 2033(b), (c), (d) and (f). In a memorandum to the DCG CEO dated March 12, 2009, the ASA(CW) reemphasized how critical the PCXs are to the Corps' planning capability and to the success of the independent peer review described in Section 2034 of WRDA 2007. The ASA(CW) also noted the PCXs have been severely limited as they have struggled with insufficient resources since their inception. The DCG CEO reemphasized his support of the PCXs in a memorandum to the MSC Commanders dated April 30, 2010, stating "Effective PCX's are a key factor in the efficient execution of our long term CW requirements!" An amount

APPROPRIATION TITLE: Investigations, Fiscal Year 2012

of \$1,000,000 will centrally fund the PCXs key roles of maintaining and strengthening the core competencies of the Planning CoP; providing technical assistance, conducting or managing peer review; transferring the latest technology or methodologies and sharing lessons learned and best practices throughout the planning community.

PROPOSED ACTIVITIES FOR FY 2012:

The funds appropriated for the PSP for FY 2012 will be used to support the Planning Associates Program (\$2,100,000) and to enable the National Planning Centers of Expertise (\$1,000,000) meet their key roles. Future success of the Planning Support Program including the Planning Centers of Expertise and other purposes requires a sustained and reliable source of funds.

APPROPRIATION TITLE: Investigations, FY 2012

1. General Investigations

c. Special Studies

Tribal Partnership Program (Sec. 203, WRDA 2000)

SUMMARIZED FINANCIAL DATA:

Estimated total (FY 2000-2010)	9,920,000
Allocation for FY 2005	3,850,000
Allocation for FY 2006	750,000
Allocation for FY 2007	2,320,000
Allocation for FY 2008	984,000
Allocation for FY 2009	954,000
Allocation for FY 2010	852,000
Allocation for FY 2011	1,000,000
Allocation for FY 2012	1,000,000

AUTHORIZATION: Section 203 of WRDA 2000, reauthorized in Section 2011 of WRDA 2007, authorizes the study of flood damage reduction, environmental restoration, and restoration and protection, preservation of cultural and natural resources, water-related planning activities, watershed assessments, and “such other projects as the Secretary, in cooperation with Indian Tribes and the heads of other Federal agencies, determines to be appropriate.” Projects follow the standard Civil Works planning process – a reconnaissance report, fully federally funded, and a feasibility report, cost shared 50/50 with in-kind contributions allowed. The WRDA 2007 version added water shed studies that are cost shared 75/25. Separate authorization and appropriations are required from Congress for a project to proceed to PED and construction. The authorization applies to all federally recognized Indian Tribes, including those in the State of Oklahoma and Alaska Native villages. Note: in FY 07 and before, funds were in the Construction account. Beginning in FY08, funding has been through the Investigations account.

JUSTIFICATION: Section 203 was enacted to provide the Corps opportunities to partner with federally recognized Tribes. Priorities for allocation of Section 203 funds are: 1) continuation and completion of ongoing studies and termination of negative studies where appropriate; 2) initiation of studies requested by Tribes; 3) engagement of additional Corps Districts with Tribal governments to build strategic partnerships. . Priorities for 203 ensure that a range of studies throughout the Nation are funded. Because the scope of the authority is so broad, various studies may be considered – floodplain mapping, water control management, self-reliance and economic capacity building, technical capacity building, erosion control, cultural resources, comprehensive planning, emergency management, water quality, water supply, community infrastructure, hazardous and toxic waste assessment and clean up, and a host of other projects. Section 203 is the only Corps authority that specifically targets Tribes as partners, identifying opportunities to work with entities that otherwise might not be reached. With the growing awareness of the program, an increasing number of Tribes have begun to approach the Corps to participate in these studies. Tribes showing interest in new or continuing studies include Isleta, Jemez, Santa Clara, Picaris, San Ildefonso, Santo Domingo, and San Felipe Pueblos; Soboba, Havasupai, Tohono ‘Oodham, Hopi, Augustine Band, Torres-Martinez Band of Cahuilla Indians, Navajo, Nez Perce, Lower Brule, Onondaga, Kickapoo, Miccosukkee, Maliseets, Penobscot, Fond du Lac, Saginaw-Chippewa, Bad River Chippewa, and the Alaska Native Villages of Newtok, Shismaref and Unalakleet.

APPROPRIATION TITLE: Investigations, FY 2012

1. General Investigations

c. Special Studies

Tribal Partnership Program (Sec. 203, WRDA 2000) (continued)

PROPOSED ACTIVITIES FOR FY 2012: Several Feasibility studies will be initiated: Havasupai, Tohono O'odham, Hopi, Augustine Band, Torres-Martinez Band, Lower Brule Sioux Tribe, Penobscot, Maliseets, and the Pueblos of Santa Clara and Santo Domingo. Alaska District will continue feasibility studies in Unalakleet and Kaktovik. All other studies are in the reconnaissance phase and will Districts will consider studies that have been proposed by Tribes.

ACCOMPLISHMENTS IN PRIOR YEARS: Since its enactment, the majority of Section 203 funds have gone to Alaska to study erosion, including the feasibility of moving coastal villages inland. A major coastal erosion study and technical assistance to several Alaskan Villages have been funded in part by Sec. 203 monies. The Corps is currently studying various options of erosion control versus moving the villages inland. This effort has gone on for several years due to its complexity and will likely continue for many years to come. Villages with the greatest need include Newtok, Shishmaref, Kaktovik, Kivalina and Unalakleet.

Other Districts that have utilized Section 203 funding include Buffalo, Detroit, New England, and Walla Walla. Reconnaissance reports on various topics were prepared by the Corps for the Passamaquoddy, Little River Band (Ottawa), Chippewa, Cheyenne River Sioux, St. Regis Mohawk, Seneca/Cattaraugus Creek, Tuscarora, Potawatami, Wampanoag and Oneida. Omaha, Albuquerque and Sacramento Districts received earmarks in recent years for reconnaissance studies with the Lower Brule, Cheyenne River Sioux, Shoshone-Bannock, the Pueblos of Santa Ana, San Juan, San Ildefonso, Santa Clara, and Zuni; the Jicarilla Apache, and the Washoe. Several positive 905(b) reports have been submitted to date, approved, and have begun feasibility –Santo Domingo Watershed Study (SPA), as an example. Tribes thus far involved have stated that even if a project does not proceed to feasibility, the program is still valuable because the resulting report pulls together enough information to proceed should additional funding become available, or if the Tribe decides to move forward. New Orleans, Vicksburg, Jacksonville and Kansas City Districts have expressed interest in 203 studies with their Tribes beginning in FY 2012.

APPROPRIATION TITLE: Investigations, FY 2012

Water Resources Principles and Guidelines (New)

Total Estimated Federal Cost	Allocation Prior to FY 2011	President's Budget FY 2011	Tentative Allocation FY 2012	Additional to Complete after FY 2012
2,000,000	0	500,000	500,000	1,000,000

SCOPE:

This effort supports implementation of revision to the Water Resources Principles and Guidelines in accordance with requirements in the Water Resources Development Act (WRDA) of 2007 (Sec 2031, PL 110-114). Effort involves developing interagency guidelines with ASA(CW), CEQ and other affected agencies, and development and dissemination of USACE agency guidelines.

FY 2011 Activities: Initiate and publish draft interagency guidelines; Initiate and complete National Academy of Sciences (Water Science and Technology Board – WSTB) review of Principles and Standards; and begin developing USACE agency guidelines (\$500K.)

FY 2012 Activities: Initiate and complete National Academy of Sciences (Water Science and Technology Board – WSTB) review of Guidelines. Respond to comments and complete interagency guidelines; and continue developing USACE agency guidelines (\$500K.) This four year effort is scheduled to complete in FY 2013.

JUSTIFICATION:

Revision to the Water Resources Principles and Guidelines is a statutory requirement of the Section 2031 of the Water Resources Development Act of 2007 (PL 110-114.)

APPROPRIATION TITLE: Investigations, FY 2012

Water Resources Priorities Study (Examination of National Flood Risks)

	Total Estimated Federal Cost	Allocation Through FY 2010	President's Budget Request for FY 2011	Tentative Allocation FY 2012	Additional to Complete After FY 2012
Water Resources Priorities Study	TBD	0	2,000,000	2,000,000	TBD

SCOPE: This investigation will develop a baseline assessment of the nation’s flood risks at both a regional and national scale. Through an evaluation of the comparative flood risks across the nation, their key drivers, and their effects, this assessment will reduce costs and serve as a foundation for informed choices at the Federal, State, and local levels about existing programs, authorities, policies, roles, and activities.

This investigation is authorized by Section 2032 of the Water Resources Development Act of 2007, which calls for an assessment of the Nation’s vulnerability to flooding, and for recommendations for improving existing programs and strategies to better manage flood risks. The investigation will be divided into two elements. The first element will focus on a technical analysis, which will provide background and a basis for the second element, which will result in the public policy recommendations of the report.

The technical section will examine the risks to human life and property from flooding faced in different regions of the United States. It will provide examples to explain why the risks are greater in some floodplains and some coastal locations than in others, why and how the risks may be changing over time. It will assess existing information on: (1) the number of people who live or work in places where they are potentially at risk; (2) the value of the property that is potentially at risk; and (3) actual flood-related losses (e.g., the frequency and magnitude of large losses, where such losses have been occurring, and the incidence of repetitive losses), in order to identify possible nationwide trends. It will evaluate the existing state of knowledge relating to the drivers of inland and coastal flood risks, including social, economic and climate conditions, as well as the loss of natural flood retention ecosystem services and the effects of changes in these drivers over time. It will also evaluate the uncertainties associated with our current understanding of the way that inland and coastal flood risks could change in the future, both at a regional and at a national scale. This section of the report will also explore the extent to which existing programs and strategies may be encouraging development or other forms of economic activity in flood-prone areas or may otherwise be contributing to flood risks, and their effects on the resiliency and natural functions of floodplains and coastal areas. It will address the full range of effects and tradeoffs associated with current approaches to provide a basis for considering how best to achieve flood risk management goals in concert with other societal objectives.

The second element of the investigation will focus on public policy. Drawing on the knowledge developed through the baseline assessment of national flood risks, it will assess the extent to which existing programs operate successfully (individually and together), and identifies where they may be working at cross-purposes. The report will look at not only programs of the Corps of Engineers, but at a broad array of Federal, state, and local programs and strategies, such as flood insurance, emergency response and recovery, disaster assistance, environmental, land management, and economic development programs and related activities.

This part of the report will include an exploration of the respective and appropriate roles of Federal, state, and local programs, and of their ability to work together. Its purpose is to develop a basis for identifying better ways to approach flood risk management priorities, including ways to reduce costs by improving the effectiveness, efficiency, and accountability of existing programs and strategies. Finally, the report will include specific recommendations and propose a strategy to implement them.

APPROPRIATION TITLE: Investigations, FY 2012

Fiscal Year 2011 activities include:

- Assembling and synthesizing the existing body of knowledge relating to the assessment of national flood risks and related policies and programs. Drawing on this knowledge, developing scopes of work and methodological approaches for both elements of the effort.
- Assembling an interagency working group to acquire input on direction of the study on an ongoing basis to ensure full utilization of the knowledge and technical expertise each can offer.
- Initiating work on the technical element, to include establishing a conceptual definition of risk, including hazard, exposure, vulnerability and resilience, identifying determinants of each of these elements of risk and the availability of data required to evaluate such determinants.

Fiscal Year 2012 activities will include:

- Completing work on the technical element, including collecting and organizing spatially referenced data describing the determinants of risk in order to provide the baseline assessment of national and regional scale flood risks.
- Initiating work to describe and evaluate the effects of the full range of Federal and non Federal programs and strategies that affect flood risk.

Fiscal Year 2013 activities will include:

- Completing work on the examination of existing programs and strategies to provide an understanding of how they are currently functioning and affect the full range of flood risks and other societal objectives.
- Working with the interagency working group, developing recommendations and an implementation strategy for improving existing programs and strategies.
- Compiling and preparing a final report for submittal to Congress.

JUSTIFICATION: This investigation addresses the critical need for a baseline assessment of the nation's flood risks at both a national and regional scale, as well as an analysis of the effects of the existing portfolio of programs, authorities, policies, roles, and activities. A large body of evidence suggests the nation is facing growing flood risks. There is currently a lack of adequate information at a national and regional scale about the magnitude and source of those risks, as well as the effectiveness, efficiency, accountability, and impacts of existing programs and strategies. This investigation addresses the critical need for an analytically sound assessment of existing programs, which will provide a basis for significant recommendations on ways to better manage flood risks at the national, regional, state, and local levels. It will provide an understanding of the key drivers and magnitude of flood risks, as well as the net effect that the existing portfolio of Federal and non-Federal programs and policies has on those flood risks. Specifically, this study will provide a baseline assessment of the nation's vulnerability to flooding from a national and regional perspective and identify key drivers of flood risks, including those drivers expected to change over time. Additionally, this study will assess the combined effects of the existing portfolio of Federal and non-Federal programs and policies on choices that impact flood risk, including the choice to develop in flood-prone areas. This knowledge will provide a foundation for recommending improvements to existing programs, authorities, policies, and roles to better manage flood risks in coordination with states and localities.

REMAINING ITEMS

CONSTRUCTION

APPROPRIATION TITLE: Construction, FY 2012

Environmental Projects

Aquatic Ecosystem Restoration (CAP Section 206)

SUMMARIZED FINANCIAL DATA:

President's Budget for FY 2011	\$7,273,000
Allocation Requested for FY 2012	\$0

GENERAL: Section 206 of the Water Resources Development Act of 1996 (PL 104-303), as amended, authorizes up to \$50,000,000 annually to carry out aquatic ecosystem restoration projects that will improve the quality of the environment, are in the public interest and are cost-effective. Non-Federal interests shall provide 35 percent of the cost of construction including provision of all lands, easements, rights-of-way, and necessary relocations. Non-Federal interests pay 100 percent of the cost of operation, maintenance, replacement and rehabilitation. Not more than \$5,000,000 in Federal funds may be allocated to a project at a single locality.

PROPOSED ACTIVITIES FOR FY 2012: The Budget proposes that funds be reprogrammed from CAP Sections 14, 103, 107, and 208 to Sections 111, 204, 205, 206, and 1135 to support ongoing work. The current estimate of the reprogramming for this section is:

SECTION 206 - REPROGRAMMING RECIPIENTS	STATE	AMOUNTS
HOFMANN DAM, IL	IL	\$800,000
WILSON BAY RESTORATION, JACKSONVILLE, NC	NC	\$25,000
JACKSON CREEK, GWINETT CO., GA	GA	\$245,000
CAP SEC 206 KELLOGG CREEK, OR	OR	\$100,000
5TH AVE DAM REMOVAL, COLUMBUS, OH	OH	\$1,100,000
COORDINATION	USA	\$400,000
	Total	\$2,670,000

SOURCE CAP SECTIONS	ESTIMATED AMOUNTS
Section 14	\$5,816,000
Section 103	\$7,581,000
Section 107	\$9,603,000
Section 208	\$0
Total Estimated Reprogramming	\$23,000,000

RECIPIENT CAP SECTIONS	ESTIMATED AMOUNTS
Section 111	\$10,390,000
Section 204	\$6,690,000
Section 205	\$0
Section 206	\$2,670,000
Section 1135	\$3,250,000
Total Estimated Reprogramming	\$23,000,000

Environmental Projects

Beneficial Uses of Dredged Material (CAP Section 204)

SUMMARIZED FINANCIAL DATA:

President's Budget for FY 2011	\$2,195,000
Allocation Requested for FY 2012	\$0

AUTHORIZATION: Section 204 of the Water Resources Development Act (WRDA) of 1992 Public Law (PL) 102-580, Section 207 of PL 102-580, and Section 145 of WRDA of 1976 (PL 94-587), as amended by Section 933 of PL 99-662, Section 35 of PL 100-676, Section 207 of PL 102-580, Section 217 of PL 106-53, and Section 111 of PL 106-541.

JUSTIFICATION: Section 204 authorizes projects for the protection, restoration, and creation of aquatic and ecologically related habitats, including wetlands, in connection with dredging for construction, operation, or maintenance of an authorized navigation project. Section 204 total program limit is \$15,000,000. Non-Federal interests share in a minimum of 25 percent of the project cost. Section 207 modified Section 204 by authorizing disposal in any manner for which the environmental benefits outweigh the added costs.

PROPOSED ACTIVITIES FOR FY 2012: The Budget proposes that funds be reprogrammed from CAP Sections 14, 103, 107, and 208 to Sections 111, 204, 205, 206, and 1135 to support ongoing work. The current estimate of the reprogramming for this section is:

SECTION 204 – REPROGRAMMING RECIPIENTS	STATE	AMOUNTS
MAUMEE BAY HABITAT RESTORATION, OH	OH	\$350,000
NJIWW DREDGED HOLE 35 RESTORATION, NJ (SECTION 204)	NJ	\$1,200,000
BARATARIA BAY WATERWAY, MILE 6.0-0.0, PLAQUEMINES PARISH, LA	LA	\$4,750,000
COORDINATION	USA	\$390,000
	Total	\$6,690,000

SOURCE CAP SECTIONS	ESTIMATED AMOUNTS
Section 14	\$5,816,000
Section 103	\$7,581,000
Section 107	\$9,603,000
Section 208	\$0
Total Estimated Reprogramming	\$23,000,000

RECIPIENT CAP SECTIONS	ESTIMATED AMOUNTS
Section 111	\$10,390,000
Section 204	\$6,690,000
Section 205	\$0
Section 206	\$2,670,000
Section 1135	\$3,250,000
Total Estimated Reprogramming	\$23,000,000

APPROPRIATION TITLE: Construction, FY 2012

Flood Risk Management Projects

Flood Control (CAP Section 205)

President's Budget for FY 2011	\$6,635,000
Allocation Requested for FY 2012	\$0

GENERAL: Section 205 of the Flood Control Act of 1948 (PL 80-858), as amended, authorizes up to \$55,000,000 annually for construction of flood control projects where such construction is not already specifically authorized by Congress. Projects are designed to provide the same complete project and same degree of protection provided under regular authorization procedures. Each project selected must be economically justified and complete within itself. Federal cost participation is limited to \$7,000,000 per project at a single locality.

PROPOSED ACTIVITIES FOR FY 2012: The Budget proposes that funds be reprogrammed from CAP Sections 14, 103, 107, and 208 to Sections 111, 204, 205, 206, and 1135 to support ongoing work. The current estimate of the reprogramming for this section is:

<u>SECTION 205 – REPROGRAMMING RECIPIENTS</u>	<u>STATE</u>	<u>AMOUNTS</u>
None		\$0

SOURCE CAP SECTIONS	ESTIMATED AMOUNTS
Section 14	\$5,816,000
Section 103	\$7,581,000
Section 107	\$9,603,000
Section 208	\$0
Total Estimated Reprogramming	\$23,000,000

RECIPIENT CAP SECTIONS	ESTIMATED AMOUNTS
Section 111	\$10,390,000
Section 204	\$6,690,000
Section 205	\$0
Section 206	\$2,670,000
Section 1135	\$3,250,000
Total Estimated Reprogramming	\$23,000,000

Navigation Projects

Navigation Mitigation Projects (CAP Section 111)

SUMMARIZED FINANCIAL DATA:

President's Budget for FY 2011	\$8,300,000
Allocation Requested for FY 2012	\$0

AUTHORIZATION: Section 111 of the River and Harbor Act of 1968 (PL 90-483), as amended, authorizes the construction of projects for the prevention or mitigation of shore damages attributable to Federal navigation works.

JUSTIFICATION: The cost of installation is cost shared in the same manner as the costs for the project causing the shore damage. The cost of operation and maintenance is borne by the non-Federal sponsor. Projects first cost shall not exceed \$5,000,000 without specific authorization.

PROPOSED ACTIVITIES FOR FY 2012: The Budget proposes that funds be reprogrammed from CAP Sections 14, 103, 107, and 208 to Sections 111, 204, 205, 206, and 1135 to support ongoing work. The current estimate of the reprogramming for this section is:

SECTION 111 – REPROGRAMMING RECIPIENTS	STATE	AMOUNTS
CAMP ELLIS, SACO, MAINE	ME	\$10,000,000
OKLAHOMA BEACH, NY (SECTION 111)	NY	\$100,000
COORDINATION	USA	\$290,000
	Total	\$10,390,000

SOURCE CAP SECTIONS	ESTIMATED AMOUNTS
Section 14	\$5,816,000
Section 103	\$7,581,000
Section 107	\$9,603,000
Section 208	\$0
Total Estimated Reprogramming	\$23,000,000

RECIPIENT CAP SECTIONS	ESTIMATED AMOUNTS
Section 111	\$10,390,000
Section 204	\$6,690,000
Section 205	\$0
Section 206	\$2,670,000
Section 1135	\$3,250,000
Total Estimated Reprogramming	\$23,000,000

APPROPRIATION TITLE: Construction, FY 2012

Environmental Projects

Project Modifications for Improvement of the Environment (CAP Section 1135)

President's Budget for FY 2011	\$7,046,000
Allocation Requested for FY 2012	\$0

GENERAL: Section 1135 of the Water Resources Development Act of 1986 (PL 99-662), as amended authorizes review of Corps water resources projects to determine the need for structural or operational modifications for the purpose of improving the quality of the environment in the public interest; to determine if the operation of such projects has contributed to the degradation of the quality of the environment; and to carry out a program of such modifications that are feasible and consistent with authorized project purposes. Up to \$40,000,000 may be appropriated annually. The non-Federal share of the cost of any modifications will be 25 percent. Not more than \$5,000,000 in Federal funds may be expended on any single modification or measure pursuant to Section 1135.

PROPOSED ACTIVITIES FOR FY 2012: The Budget proposes that funds be reprogrammed from CAP Sections 14, 103, 107, and 208 to Sections 111, 204, 205, 206, and 1135 to support ongoing work. The current estimate of the reprogramming for this section is:

SECTION 1135 – REPROGRAMMING RECIPIENTS	STATE	AMOUNTS
SHORTY'S ISLAND, ID (SEC 1135)	ID	\$1,050,000
BRAIDED REACH, ID	ID	\$1,400,000
BENNINGTON LAKE DIVERSION DAM, WA	WA	\$400,000
COORDINATION	USA	\$400,000
	Total	\$3,250,000

SOURCE CAP SECTIONS	ESTIMATED AMOUNTS
Section 14	\$5,816,000
Section 103	\$7,581,000
Section 107	\$9,603,000
Section 208	\$0
Total Estimated Reprogramming	\$23,000,000

RECIPIENT CAP SECTIONS	ESTIMATED AMOUNTS
Section 111	\$10,390,000
Section 204	\$6,690,000
Section 205	\$0
Section 206	\$2,670,000
Section 1135	\$3,250,000
Total Estimated Reprogramming	\$23,000,000

APPROPRIATION TITLE: Construction – Fiscal Year 2012

Dam Safety and Seepage/Stability Correction Program

President's Budget FY 2011	\$49,100,000	Tentative Allocation FY 2012	\$37,155,000
Evaluation Studies	\$39,950,000	Evaluation Studies	\$27,655,000
Post-Evaluation Work	\$ 9,150,000	Post-Evaluation Work	\$ 9,500,000

GENERAL: The Dam Safety and Seepage/Stability Correction Program provides for studies and modification of completed Corps of Engineers dams. There are 692 dams under the Corps jurisdiction. While no Corps dams are in imminent danger of failure, some have been identified as having a higher risk of a dam safety incident than originally anticipated based on new data or the likelihood of extremely large floods and seismic events. The Corps has implemented a Portfolio Risk Analysis program and has completed screening 100% of the Corps dams. The evaluation studies funded under the Dam Safety and Seepage/Stability Correction Program are for dams identified with very high risks of a dam-safety incident (Dam Safety Action Classification I or II). Dam Safety Assurance modifications are made to provide for passage of the maximum probable flood (PMF) based on changes in the climate of the area. Other dam safety assurance modifications are designed to insure that the dam retains the reservoir during and after a major earthquake. Seepage problems at USACE dams are usually related to increase reservoir levels above the previous pool of record at a dam. Other seepage problems arise due to water seeping through the contact between the dam and bed rock. Static instability generally involves movement that starts at a slow rate and could result in massive displacement of large volumes of material if not corrected. Seepage/stability correction projects are classified as major rehabilitations for dam safety. Dam modification work is proceeding under existing authorities on projects where cost effective risk reduction measures have been identified in accordance with national priorities.

BUDGET REQUEST: The \$37,155,000 requested for Fiscal Year 2012 will be used (1) for high priority studies (\$27,655,000) and (2) to continue post-evaluation work (\$9,500,000) on high risk dam safety assurance, seepage control, and static instability correction projects.

Evaluation Studies \$27,655,000 is requested. The Corps Screening Portfolio Risk analysis has identified 98 Dam Safety Action Class I and II critical projects for studies during Fiscal Year 2012. These are the highest priority projects where studies have not been completed in prior years.

Evaluation Studies

Addicks Dam (Buffalo Bayou), TX	Keystone Dam, OK
Allegheny L&D 6, PA	Lagrange Lock & Dam, IL
Alum Creek Dam, OH	Lake Shelbyville Dam, IL
Arkabutla Dam, MS	Lewisville Lake, TX
Ball Mountain Dam, VT	Lopez Dam, LACDA, CA
Barker Dam (Buffalo Bayou), TX	Little Chute Lock & Dam, WI
Beach City Dam, OH	Magnolia Levee – Bolivar Dam, OH
Big Creek Diversion Dam, IA	Mansfield Hollow Dam, CT
Black Rock Lock, NY	Markland Locks & Dam, KY & OH
Blakely Mountain Dam, AR	Martis Creek Dam, CA & NV
Bonneville Lock & Dam, OR & WA	Mill Creek Dam, WA

Dam Safety and Seepage/Stability Correction Program (Continued)
Evaluation Studies (continued)

Brookville Lake Dam, IN	Mill Creek Diversion Dam, WA
Cape Fear River Lock & Dam 1, NC	Mississippi River Lock & Dam #1, MN
Cape Fear River Lock & Dam 2, NC	Mississippi River Lock & Dam #2, MN
Canyon Lake, TX	Mississippi River Lock & Dam #3, MN
Carbon Canyon Dam, CA	Mississippi River Lock & Dam #11, IA & IL
Cecil M Harden Lake Dam, IN	Mississippi River Lock & Dam #24, IL & MO
Cedars Lock & Dam, WI	Mississippi River Lock & Dam #25, IL & MO
Charleroi Lock & Dam (Mono Riv 04), PA	Montgomery Locks & Dam, PA
Cherry Creek Dam, CO	Moose Creek Dam/Chena Lakes Project, AK
Clarence Cannon Dam – Re-Regulation Dam, MO	New Cumberland Locks & Dam, WV
Cumberland Dikes – Lake Texoma, OK	Nolin Lake Dam, KY
Curwensville Dam, PA	O C Fisher Dam, TX
Delaware Dam, OH	Orwell Reservoir Dam, MN
Depere Gen Laws Lock & Dam, WI	Paint Creek Dam, OH
Dworshak Dam, ID	Pasco Levees – McNary L&D, WA
East Branch Dam, PA	Patoka Lake Dam, IN
East Lynn Dam, WV	Pine Creek Dam, OH
Edward MacDowell Dam, NH	Proctor Dam, TX
Green Peter - Foster Dam, OR	Rapide Croche Dam, WI
Foster – Joseph Sayers Dam, Howard Levee, PA	Richland Levees – McNary L&D, WA
Ft. Lyon Dike – John Martin Dam, CO	Robert S Kerr Lock & Dam, OK
FWR Structure Site No. 47, MS	Rough River Lake Dam, KY
Gathright Dam, VA	Russell B Long Lock & Dam
General Edgar Jadwin, PA	Santa Ana River, San Antonio Dam, CA
Glover Wilkins Spillway, MS	Santa Fe Dam, LACDA, CA
Green River Lake Dam, KY	Santa Rosa Dam, NM
Greenup Lock & Dam, KY & OH	Stillhouse-Hollow Dam, TX
Hammond Dam, PA	Tappan Dam, OH
Hartford Levee – John Redmond Dam, KS	Terminus Dam, CA
Hidden Dam, CA	Thomas J O'Brien Controlling Works Lock & Dam, IL
Howard A. Hansen Dam, WA	Tom Jenkins Dam, OH
Howard Levee – F J Sayers Dam, PA	Town Bluff Dam, TX
Isabella Dam, CA	Trinidad Dam, CO
J Percy Priest Dam, TN	Union Village Dam, VT
J Edward Roush Lake Dam, IN	Upper Appleton Lock & Dam, WI
John C. Stennis Dam, MS	Westville Lake Dam, MA

APPROPRIATION TITLE: Construction – Fiscal Year 2012

Dam Safety and Seepage/Stability Correction Program (Continued)

Evaluation Studies (continued)

John Day Lock & Dam, OR & WA
Kennewick Levees – McNary L&D, WA
Keystone Dam, Cleveland Levee, OK

Whittier Narrows Dam, LACDA, CA
Willamette Falls Lock, OR
Zoar Levee – Dover Dam, OH

(2) For Post-Evaluation Work \$9,500,000 is requested for Fiscal Year 2012. These funds will be used to continue post-evaluation work on high risk dam safety assurance, seepage control, and static instability correction projects, once their evaluation reports are approved.

APPROPRIATION TITLE: Construction – Fiscal Year 2012

Employees Compensation (Payments to the Department of Labor)

President's Request FY 2011	\$19,000,000	Budget Amount for FY 2012	\$15,000,000
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GENERAL: Public Law 94-273, approved April 21, 1976, 5 USC 8147b, provides that each agency shall include in its annual budget estimates a request for an appropriation equal to costs previously paid from the Employees Compensation Fund on account of injury or death of employees or persons under the agency's jurisdiction.

BUDGET REQUEST: The \$15,000,000 for Fiscal Year 2012, together with \$3,400,000 of unused prior year funds allocated for Employees Compensation, represents the total estimated cost of benefits and other payments made from the Employees Compensation Fund during the period July 1, 2009, through June 30, 2010, due to injury or death of persons under the jurisdiction of the Corps of Engineers civil functions and also includes \$1,200,000 for the investigation of fraudulent claims for workers' compensation benefits.

APPROPRIATION TITLE: Construction, FY 2012

Navigation Projects

Inland Waterways Users Board

SUMMARIZED FINANCIAL DATA:

President's Budget for FY 2011	335,000
Allocation Requested for FY 2012	895,000
Change in FY 2012 from FY 2011	560,000

AUTHORIZATION: The Inland Waterways Users Board was established by Section 302 of the Water Resources Development Act of 1986, (PL 99-662) and pursuant to the Board's charter, approved by the Secretary of the Army on March 3, 1987. The Board is an advisory committee subject to the requirements of the Federal Advisory Committee Act (PL 92-463, as amended).

JUSTIFICATION: The \$895,000 requested this Fiscal Year is to allow the Corps to fulfill its Congressionally authorized support role for the needs of, and activities associated with, the Inland Waterways Users Board (the Board).

- (1) Funds in the amount of \$70,000 are requested to meet the estimated expenses of the eleven-member Board for its travel, meeting, and other needs to meet the requirements of the charter. Board member travel expenses have increased from prior years due to inflation, primarily for airfares.
- (2) Funds in the amount of \$825,000 are requested for Corps of Engineers expenses related to its responsibilities as an advisory committee sponsor and to facilitate an essential reevaluation of the financial structure of the Inland Waterways Trust Fund to restore fiscal integrity necessary to fund ongoing and future inland waterway modernization and major rehabilitation. The Deputy Commanding General for Civil Works and Emergency Operations has been designated Executive Director to the Board, and he has designated staff members to provide continuing Board support. Corps expenses will include personnel costs for administrative Board meeting support, including staff travel, clerical, printing, and related materials. Additionally, increased resources are needed to support the ongoing reevaluation of the financial basis of the Inland Waterways Trust Fund, which falls under the advisory purview of the Board. The fund balance is depleted and is now only sustained by current revenue flows. The Office of Management and Budget (OMB) and the Office of the Assistant Secretary of the Army (Civil Works) (ASA(CW)) have directed that alternatives to the current Inland Waterways fuel tax be developed. Legislative and administrative changes to the fund will continue to be developed and begin to be implemented during FY 2012. Proposed alternatives will require intensive coordination with the Board and stakeholder groups.

ACTIVITIES IN FY 2011: The FY 2011 appropriations included \$335,000 for these activities. FY 2011 activities include Corps personnel costs to coordinate, attend, and provide analytical support for three scheduled meetings of the Board pursuant to their charter. Support also included Board meeting logistics, including staff travel, clerical, printing, and related materials. The need for Corps support efforts greatly expanded in FY 2010 and 2011 to initiate a reevaluation of the financial basis of the Inland Waterways Trust Fund through analyses of various alternatives under consideration by Corps senior leaders, ASA(CW), OMB and industry.

PROPOSED ACTIVITIES FOR FY 2012: Proposed activities include Corps personnel costs to coordinate, attend, and provide analytical support for three meetings of the Board pursuant to their charter. Increased funding is necessary to support extensive additional activities that will be required to conduct alternatives analyses, and to develop and support legislation and implementation of alternatives to the current Inland Waterways fuel tax, as directed by ASA(CW) and OMB. Proposed alternatives will require intensive coordination with the Board and inland navigation stakeholder groups.

APPROPRIATION TITLE: Construction – Fiscal Year 2012

Estuary Restoration Program (Title I of P.L. 106-457)

President's Budget FY 2011	\$5,000,000	Allocation FY 2012	\$2,000,000
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AUTHORIZATION AND PROGRAM DESCRIPTION: The Estuary Restoration Act of 2000, Title I of P.L. 106-457, as amended, authorizes the Secretary to carry out estuary habitat restoration projects recommended for implementation by the Estuary Habitat Restoration Council and meeting various criteria. Each project must address restoration needs identified in an estuary habitat restoration plan, be consistent with the estuary habitat restoration strategy developed under the Act, include a monitoring plan that is consistent with the standards for monitoring developed under the Act and include satisfactory assurance from the non-Federal interests proposing the project that the non-Federal interest will have the capability to carry out items of local cooperation, including maintenance. Except when innovative technology is involved the Federal share may not exceed 65 percent of the cost of the project. Non-Federal interests shall provide lands, easements, rights-of-way and relocations and are responsible for all costs associated with operating, maintaining, replacing, repairing, and rehabilitating the projects.

ACTIVITIES: Three projects have completed construction, Twelve projects, including one new project approved for funding in FY 2010, are in various stages of implementation. The Corps proposes to use a cooperative agreement to implement six of these projects which should expedite implementation. Examples include a removal of invasive species and re-vegetation with native species in Florida estuaries, restoring oysters off the Texas coast, restoring more natural flow to a tidal creek in Massachusetts and restoring a filled tidal area in California. The quality of the proposals received continues to improve. As funds are available new solicitations for projects are announced and the FY 2012 funds will be used to support new projects selected from the proposals received in response to a solicitation early in FY 2012. Healthy estuaries play an important role in the life cycles of many aquatic species with high commercial value from blue crabs to salmon. Healthy estuarine wetlands contribute to improved water quality and may aid in the reduction of flood risks. There is a growing awareness of the need to develop restoration projects responsive to sea level change and that will be considered in the selection of new projects to fund. Restoration of estuary restoration projects will contribute to efforts towards achieving more sustainable estuarine ecosystems.

BUDGET REQUEST: The \$2,000,000 requested for Fiscal Year 2012 is to continue the program of estuary habitat restoration, primarily funding new projects.

APPROPRIATION TITLE: Construction – Fiscal Year 2012

Periodic Review of BCRs

SUMMARIZED FINANCIAL DATA:

President's Budget for FY 2011	0
Allocation Requested for FY 2012	1,000,000
Change in FY 2012 from FY 2011	1,000,000

DESCRIPTION: FY 2012 funds will be used to reaffirm outdated project BCR's for some 30 continuing projects that are expected to be proposed for the FY 2013 Budget. Continuing projects are required to have BCR's approved within the last five Fiscal Years at the time of proposal for the budget. Projects proposed for new construction starts must have BCR's approved within the last three Fiscal Years from the time of proposal as a new start. These current BCRs are then used as one of the metrics to prioritize the annual budget. Some projects can be evaluated without a significant amount of new analysis based on the determination that the original assumptions are still valid. However some projects may have experienced significant changes such that new analysis will be necessary to update the BCR.

JUSTIFICATION: During the development of the FY 2012 budget, the certification process for BCRs used in the budget identified approximately 30 projects for which the date of the last approved report was more than 5 years old. In order to validate these BCRs to be used as one performance criteria for the development of the Budget, these BCRs needed to be updated. A three level update process has been developed to update these BCRs. A level one update will involve a qualitative evaluation of assumptions used in the original analysis. If this analysis determines that the original assumptions are still valid, an updated BCR will be calculated using updated cost discounted back to the price level of the benefits. If this analysis determines that changes have occurred that brings into question the original assumptions, an economic update of the benefits will be required. A level two update will involve a reevaluation of the assumptions involved with the calculation of the benefits. This reevaluation will update the benefits based on data acquired during the analysis and these updated benefits will be compared to the updated costs to provide the new project BCR. If a significant amount of time has elapsed since the last economic evaluation or significant changes have occurred to project assumptions a reevaluation will be required. This level three evaluation will require all new data to be acquired and new model runs executed in order to calculate current benefits of the project. Engineering will also need to evaluate their assumptions and determine if new engineering models will need to be run. This new benefit analysis will then be compared to the current cost estimate of the project to provide a current BCR. Current BCRs are required so that projects can be compared based on project performance when prioritizing the budget submittal. Funds will be allocated to these projects based on the determination of the type of update required. This is expected to be a onetime effort. Updates required after FY 2012 will be accomplished using project funds.

APPROPRIATION TITLE: Construction – Fiscal Year 2012

A partial list of projects potentially requiring a BCR reaffirmation follows. It is expected that several of these project BCR's will be reaffirmed in FY 2011 and/or FY 2012 with available project funds.

ALLATOONA POWERHOUSE, PA (REHAB)
BRAYS BAYOU, TX
CAROLINA BEACH AND VICINITY, NC
CHAIN OF ROCKS CANAL, MISSISSIPPI RIVER, IL (DEF CORR)
CHESTERFIELD, MO
DADE COUNTY, FL (R)
DUVAL COUNTY, FL (R)
FIRE ISLAND INLET TO MONTAUK POINT, NY
FORT RANDALL DAM, LAKE FRANCIS CASE, SD
GREAT EGG HARBOR INLET AND PECK BEACH, NJ (R)
GUADALUPE RIVER, CA
HUNTING BAYOU, HOUSTON, TX
INDIANA SHORELINE EROSION, IN
LITTLE CALUMET RIVER, IN
LONG BEACH ISLAND, NY (I)
MANATEE COUNTY, FL (R)
MCCOOK AND THORNTON RESERVOIRS, IL
MISS RIVER BTWN THE OHIO AND MO RIVERS (REG WORKS), MO & IL
NEW YORK & NEW JERSEY HARBOR, NY & NJ
PORTUGUES AND BUCANA RIVERS, PR
PRESQUE ISLE PENINSULA, PA (PERMANENT) (R)
RARITAN RIVER BASIN, GREEN BROOK SUB-BASIN, NJ
RIO GRANDE FLOODWAY, SAN ACACIA TO BOSQUE DEL APACHE, NM
RIO PUERTO NUEVO, PR
ROANOKE RIVER UPPER BASIN, HEADWATERS AREA, VA
SACRAMENTO RIVER BANK PROTECTION PROJECT, CA
SANTA ANA RIVER MAINSTEM, CA
SANTA PAULA CREEK, CA
SOUTH SACRAMENTO COUNTY STREAMS, CA
ST LOUIS FLOOD PROTECTION, MO Completion
ST. JOHN'S COUNTY, FL

REMAINING ITEMS

OPERATION AND MAINTENANCE

Appropriation Title: Operation and Maintenance – Fiscal Year 2012

1. Operation and Maintenance

IPET/HPDC Lessons Learned Implementation to Improve Operation and Maintenance

Total Estimated Federal Cost	Allocation Prior to FY 2011	President's Budget FY 2011	Tentative Allocation FY 2012	Additional to Complete After FY 2011
62,000,000	4,980,000	8,000,000	6,000,000	51,120,000

SCOPE:

Following Hurricane Katrina, USACE commissioned two major assessments to determine what went wrong in New Orleans and why. The Interagency Performance Evaluation Taskforce (IPET) looked at the technical issues and the Hurricane Protection Decision Chronology (HPDC) looked at the policy and decision-making process over the past several decades that led to the system in place in New Orleans prior to Katrina. Those two assessments identified numerous gaps, weaknesses and lessons learned that USACE is now addressing. The work is being accomplished with four national teams comprised of multiple product/project specific teams. Closing gaps and incorporating lessons learned are critical to improve the public safety and performance of USACE's built infrastructure. These efforts will benefit the entire USACE portfolio of projects, Operation and Maintenance activities are:

OM - Theme 1 - Comprehensive Systems Approach (3,000,000)

Emphasizes an integrated, comprehensive and systems based approach incorporating anticipatory management to remain adaptable and sustainable over the project life cycle, placing the highest priority on protection of public health and safety. Update existing and develop new tools to provide analyses and decision support on a system basis; provide methods and guidance to incorporate adaptive management into decision making to account for dynamic processes such as sea level rise and climate change; implement a nationwide datum and subsidence standard consolidate and expand policies, methods, and technologies to achieve long-term sustainability of USACE infrastructure..

OM - Theme 2 – Risk Informed Decision Making (2,400,000)

Emphasizes integrated risk management through implementation of risk and reliability concepts to operations and major maintenance. Update methods, models guidance to assess engineering and operational reliability of local protection systems; fully develop risk analyses concepts, including social and environmental impacts; update levee certification guidance; apply innovative modeling methods used in IPET to identify failure causes due to soil conditions for other regions with levees of concern; develop capability to model the risk and reliability effects of surge and overtopping including any dynamic effects.

OM – Theme 3 - Communication of Risk to the Public (400,000)

Emphasizes clear and candid communication of risk both internally and externally, supporting risk-informed decision making over the project life cycle. Improve ways to characterize and communicate public health and safety for our built infrastructure. Conduct detailed review and revision of existing engineering and operations guidance to include risk communications. Apply new framework for existing projects that incorporates public involvement in risk reduction strategies.

OM - Theme 4 – Professional and Technical Expertise (200,000)

Emphasizes professionalism and technical competence to provide responsible and competent public service professionalism with life safety as a fundamental driver. Operating and maintaining USACE's aging infrastructure requires unique skill sets that differ from those needed for the planning and engineering of new projects. The O&M portion of this theme will include investments that will better equip staff competencies in the key areas of dam and levee safety as well as normal project operations.

Appropriation Title: Operation and Maintenance – Fiscal Year 2012

JUSTIFICATION:

USACE must improve its ability to provide safe, reliable projects working together as a system with increased economic and environmental benefits through an integrated, comprehensive, sustainable, and systems-based approach that places the highest priority on protection of public health and safety. A systems and risk-based approach to capture the impacts of incremental changes that result from natural, dynamic processes and human activities throughout the lifecycle, combined with more comprehensive review of projects, will allow USACE to more fully address risks due to flooding and coastal storms in their decision-making. USACE will increase emphasis on aligning federal, state, and local projects, programs and authorities for risk management; on making decisions collaboratively; on improving communication about residual risk, and on explaining the public's roles and shared responsibility for risk reduction across all missions over the entire project life cycle.

FY 2011 Accomplishments:

This program did not receive any funding from Congress in FY 2011, limited carryover funds combined with very limited strategic funds from the Expense account kept the most critical work in motion but teams operated far below capacity and critically needed work was not accomplished. The program made significant strides in getting USACE projects across the nation on the correct vertical datum. A new tracking tool was deployed and training was provided across USACE to assist field personnel with getting their existing projects in compliance. The vertical datum issue was a key lesson learned from the Katrina experience. Managing risk must be a shared responsibility with the public, so USACE must do a better job of explaining the risk. Risk workshops were conducted at all USACE regional offices. Also, interim I-wall guidance was issued; this will allow better decision making on the right course of action for the many I-walls in place across USACE. This program was also a key contributor the USACE's response to Executive Order 13514 (greenhouse gases) and it remains the most productive and visible agency response to incorporating lessons learned from USACE's and the nation's worst-ever natural disaster..

FY 2012 Activities:

FY 2011 funding will continue building on work accomplished to respond to critical needs identified by IPET, HPDC, the National Academy of Science, the American Society of Civil Engineers' External Review Panel, and others in the wake of Hurricane Katrina. USACE will incorporate the new methods in programs and activities that enhance the operation, safety and sustainability of our built infrastructure based on those lessons learned. Specifically, FY 2012 funding will be used to continue updating of guidance for operations and maintenance; continue development of supporting technologies to improve the effectiveness of post-authorization evaluations and assessments of incremental change over time; enhance the use of adaptive management in project operation and maintenance through policies and development of a technical guide; address climate change impacts to water resources projects, with particular emphasis on developing the framework for how climate change and sea level change should be considered in making decisions for existing infrastructure investments; continue to implement the consistent nationwide project datum and associated subsidence standards and certification; develop policies and methods to infuse sustainability into practice; develop supporting methods and technologies to support the transformation of ICW from project element inspection to a risk-based system assessment; advance the understanding of risk and reliability modeling of surge and overtopping; continue to develop and deliver improved methods and guidance for better communication of risk to the public impacted by our infrastructure; and improve professional and technical competence in areas of particular importance to operations and maintenance.

Appropriation Title: Operation and Maintenance – Fiscal Year 2012

Aquatic Nuisance Species Research

SUMMARIZED FINANCIAL DATA:

President's Request for FY 2011	\$ 690,000
Allocation Requested for FY 2012	\$ 690,000
Increase of FY 2012 from FY 2011	\$ 0

AUTHORIZATION: The Nonindigenous Aquatic Nuisance Prevention and Control Act of 1990 (PL 101-646). The National Invasive Species Act of 1996 (PL 104-332) reauthorized and amended the Non-indigenous Aquatic Nuisance Prevention and Control Act.

JUSTIFICATION: Invasive species cost the public over \$137 billion annually. It is now estimated that over 100 nuisance species are introduced into U.S. waters annually – many of which adversely impact operations and maintenance on Corps' facilities - as well as threaten valued natural resources. Zebra mussel impacts alone cost the public over \$1 billion annually. Methods of prevention and more effective, inexpensive methods of control of invasive species must be developed to prevent impacts to public facilities and protect valuable natural resources.

Research efforts have been expanded under the Aquatic Nuisance Species Research Program (ANSRP) to address invasive aquatic species that impact the nations' waterways infrastructure and associated resources. Methods for prevention, control, and restoration of natural resources will be developed. Control strategies are being developed for: (a) navigation structures, (b) hydropower and other utilities, (c) vessels and dredges, and (d) water treatment, irrigation, and other water control structures.

Research studies include: 1) The evaluation of potential control/barrier methods for Asian carps moving up the Mississippi River to the Great Lakes, 2) new techniques for control of zebra and quagga mussels moving westward past the 100th meridian, 3) Improved control methods for harmful algal blooms through new chemicals and life cycle sensitivity analysis, 4) Corps personnel training in recognition and control methods of ANS on Corps lands/waters, 5) Web-based regional lists of aquatic invasive species on Corps projects, and 6) Methods to reduce invasive species impacts to threatened and endangered species and restore natural habitat.

PROPOSED ACTIVITIES FOR FY 2012:

1. Evaluate alternate barrier strategies (e.g. bubble curtains, turbulence, acoustics, etc.) for restricting invasive fish movement into navigable waterways.
2. Develop population viability models (demographic models) to evaluate survival rates, recruitment, movement, and rate of population growth of Asian carp species.
3. Assess ecological risk of Asian carp invasions.
4. Determine and evaluate mitigation strategies for effective management of burrowing suckermouth catfish populations.
5. Determine factors that influence the toxicity of the cyanobacteria responsible for Avian Vacuolar Myelinopathy (AVM) disease.
6. Evaluate new technologies for controlling invasive mussel veligers.
7. Evaluate environmentally benign surfaces to resist bioadhesion of invasive mussels on Corps infrastructure.

ACCOMPLISHMENTS IN FY 2011:

1. Developed improved guidance for operation of the Chicago Sanitary and Ship Canal (CSSC) electrical barrier to prevent movement of Asian carp species.
2. Determined swimming performance of juvenile bighead carp for use in predicting operating parameters for the CSSC electrical barrier.

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3. Developed innovative laboratory techniques and bioassays for analyzing Asian carp gut contents for determining food web impacts of these invasive fishes to aquatic ecosystems.
4. Provided Corps expertise at the Bi-national Asian Carp Risk Assessment Workshop.
5. Completed field surveys of Corps reservoirs for presence of AVM (Avian Vacuolar Myelinopathy) cyanobacteria.
6. Characterized environmental factors which trigger production of algal toxin(s) and the subsequent development of AVM disease in waterfowl and their avian predators (e.g., American bald eagle).
7. Completed apple snail feeding trials to determine the potential for AVM disease transfer to endangered Florida snail kite.
8. Completed surveys to assess impacts of armored catfish on shoreline erosion.
9. Developed a web-based Invasive Species information System (ISIS).
10. Completed and submitted annual reports on COE invasive species expenditures to OMB and the National Invasive Species Council.
11. Determined the thermal and water quality parameters affecting western distribution and spread of freshwater Dreissenids (quagga and zebra mussels).
12. Provided aquatic nuisance species technology transfer documents in the form of Technical Reports, Technical Notes, journal articles, web-based information systems, and workshops to COE Districts and Divisions.

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Asset Management Program

SUMMARIZED FINANCIAL DATA:

President’s Budget for FY 2011	\$ 4,750,000
Budget for FY 2012	\$ 4,750,000
Change in FY 2012 Over FY 2011	\$ 0

AUTHORIZATION: EO 13327, “Federal Real Property Asset Management,” Feb 2004; DOD (ASD (C3I)) memorandum, 10 Jul 95, selecting the FEM system as a DoD migration system for Computerized Maintenance Management System [CMMS].

JUSTIFICATION:

The goal of the EO 13327 Real Property initiative is to ensure that property inventories are maintained at the right size, cost, and condition to support Corps of Engineers missions and objectives

The Corps of Engineers is responsible for more than 239 billion dollars of water resources infrastructure assets that provide a diverse and critical service to the nation. As service life of this aging infrastructure often extends beyond the design life, it is important to develop an integrated national plan for assessing those assets and an investment strategy for operation, maintenance, and rehabilitation to improve reliability, minimize risk, and meet projected service needs. Critical to a successful, adaptive asset management strategy is the establishment of the asset’s condition and functional reliability along with the risks and consequences of poor performance or failure. Risk must be properly quantified and communicated to Congress and the public to ensure the safety of the citizens, the continuation of the nation’s economic viability, and a commitment to the environment as it relates to water resources.

The Corps of Engineers has deployed the Facilities and Equipment Maintenance (FEM) system (a DoD standard) as one of many computerized maintenance management tools; it provides on-line interactive information for managing the day to day maintenance activities and costs of assets, facilities, equipment, and parts and is an integral enabler to asset management. The Corps has also deployed a standard condition assessment methodology to better inform the prioritization of maintenance packages.

Funding Profile

	Actual FY 2010	FY 2011	FY12
Asset Management (AM)	2,750,000	4,750,000	4,750,000
Facilities and Equipment Maintenance (FEM)1	2,000,000		
1/ Funding incorporated into the Asset Management amount			

PROPOSED ACTIVITIES FOR FY12

Continue development and implementation of an operational condition assessment methodology for Corps of Engineers infrastructure, including but not limited to navigation, flood risk management, hydropower and recreation assets, coastal structures, data integration support, and other logistical services. Continue collecting data and development of methods to characterize the overall relationship between condition, reliability, risk impact and regional consequences in order to identify best management practices and benchmarks for prioritizing maintenance and capital improvement investments. Continue addressing operation and maintenance performance measures in the Facility and Equipment Maintenance (FEM) system. Develop business practices that will aid in right-sizing the real property inventory to meet organization mission. Perform baseline operational condition assessments for determining the condition of flood risk management structures.

ACCOMPLISHMENTS IN FY 2011:

Continued data QA/QC in the real property information database and system to meet FRPP requirements. Continued to reconcile and close data gaps and performance measures and data validation. Continued integration with necessary automated information systems. Continued development of baseline operational condition assessment and risk processes for FRM and Coastal navigation structures. Piloted/demo'd baseline processes at selected representative FRM and coastal projects. Implemented condition assessment and risk and consequence methodologies across portfolio of infrastructure assets for inland navigation which will feed FY13 budget work packages. Update economic consequence data for inland marine transportation system. Continued development and implementation of the asset management framework. Continued to meet OMB requirements. Continued integrating FEM into asset management processes.

SUMMARIZED FINANCIAL DATA:

Appropriation for FY 2010	\$6,792,000
Budget for FY 2011	\$6,792,000
Increase in FY 2012 from FY 2011	\$0

Performance Based Budgeting Support Program \$4,000,000

AUTHORIZATION: The Government Performance and Results Act of 1993 (GPRA) and under general authorities contained in various laws.

JUSTIFICATION: The President’s management agenda and GPRA requires that the Corps implement performance based budgeting for Civil Works Operations and Maintenance, The Performance Based Budgeting Support Program addresses this requirement by the collection, management and distribution of data; seeking new methods for linking performance to annual budget requests; and for analyzing the potential economic impacts on service to customers of varying budget levels.

- a. Civil Works Business Function Information: Provides critical data and information related to Civil Works project inventories, outputs and performance measures; and for the operational and strategic management of Corps’ projects, programs, budget development and studies that directly support the Navigation, Hydropower, Recreation, Environment (Stewardship, Compliance, Restoration), Water Supply and Flood Risk Management Business Line missions. This information supports the Corps O&M program and is the sole source for the Corps, other Federal agencies, partners, stakeholders, and public. These funds include supporting the collection, database management, integration, standardization, operation, enhancement, quality control, user assistance, training, compliance with security requirements and ACE-IT services. The IT activities are also reported under OMBIL-Plus in ITIPS and the annual OMB 300b submittal accounting for \$1,568,000 of the overall OMBIL-Plus costs. Lack of funding for this program would significantly reduce the Corps’ ability to produce efficient, effective, and timely performance measures for budgeting, management and the prioritization of capital investment decisions.
- b. Civil Works Performance Measurements: Work includes improvement and integration of business line performance measurements to be incorporated into the budget decision-making process; support for the Office of Management & Budget’s performance driven initiatives; and support for the future Corps budget preparation process. Efforts focus on the refinement of corporate performance principles; and program and project level performance measures that focus on anticipated performance and output at different levels of funding. Aligns and integrates with the O&M business processes - navigation, hydropower, flood risk management, recreation, water supply and environment. These measurements, at different organizational levels, provide the analytical basis to identify the incremental return on investment in Corps programs at various funding levels and to make adjustments in priorities both at the program and project levels concerning efficiency of facilities or services. Comparison of across business lines measurements among projects at all levels helps focus management attention on the priorities of programs and projects related to capital investments principles..
- c. Civil Works Business Analysis: This task analyzes data using statistical and other analytical techniques and tools to uncover relationships among budget, expenditures and performance within and between Corps business line processes. The relationships and statistics drawn from the data will provide evidence to support capital investment priorities and decisions increasing the Corps ability to delivery business line service in the most efficient and effective manner. This

task will also develop effective products to explain relationships found in the data and allow decision-makers to visualize cause and effect. This task links the data gathering, collection and distribution, and use of data in the decision-making process.

PROPOSED ACTIVITIES FOR FY 2012: FY 2012 funds will provide enhanced continuing support of Civil Works O&M integrated business line information systems; centrally distributed performance measures, outputs and system inventory information; and evaluation of new measures. FY 2012 funds will also support enhanced development of cross business output-result oriented performance measures of the incremental return on investment in Corps Civil Works program area including the investigation, acquisition and integration of decision-making software. The funding provides enhanced support for all business line but an increased focus for flood risk management, water supply, environmental restoration for the data entry modules and integration.

ACCOMPLISHMENTS IN PRIOR YEARS: Included were newly fielded centralized natural resource, water supply collection system and user's training in OMBIL Plus data entry and access. The One-stop access for much of Civil Works budget performance information was expanded for budget submittals in lieu of separate data calls. An integrated data set for all business lines was created with data for FY1999-2010 providing trend information for analysis. Performance data was merged with P2 for use in the navigation budget development process eliminating data calls and providing nationally standardized information. The inclusion of asset management and capital investment principals were considered.

Recreation Management Support Program \$1,650,000

AUTHORIZATION: This program is conducted under the general authority of PL 78-534, the Flood Control Act of 1944 (58 Stat. 887).

JUSTIFICATION: The recreation program serves almost 400 million recreation visitors and generates about \$40 million in revenue annually. Visitors spend over \$18 billion annually to engage in recreation at Corps projects; over 350,000 full and part time jobs are associated with this spending.

The RMSP supports the recreation program through the conduct of focused management studies to improve operational efficiencies and the provision of technical assistance, to include technology transfer and technology support and maintenance for recreation specific automated information systems. The RMSP supports strategic planning for and performance monitoring of the Corps recreation business program, subject to the Government Performance and Results Act (GPRA).

The RMSP has 3 major components, which together provide comprehensive support to the Corps Recreation Business Program:

1. **Focused Management Studies.** RMSP provides focused management studies and reports to acquire and analyze information about recreation trends, accessibility, emerging issues, user conflicts, visitor diversity, use fee impacts and similar elements affecting the Corps recreation program. Analyses are conducted to support the recreation area modernization program, implementing facility and service standards, and in similar product delivery improvement efforts. Information and technology transfer pursuant to these studies is funded by the RMSP. Ongoing trends analysis provides valuable data on which to base decisions about necessary short and long term adjustments to the program to meet public needs.
2. **Management/Technical Assistance.** RMSP provides technical assistance to the Recreation Community of Practice in the development of management tools, which quantify recreation program outputs and relate them to customer needs and budget allocations for the purpose of measuring performance. This includes gathering and analyzing information about customer satisfaction with the Corps recreation program. RMSP assures the field workforce is equipped with "state-of-the-art" skills and knowledge to deal with a rapidly changing public. RMSP provides technical support and maintenance of performance based budgeting tools, visitation monitoring and analysis systems, fee collection and reporting, economic analysis, facility inventory and condition assessment, and similar automated information programs. RMSP provides short-term assistance to projects in solving specific technical problems.

3. Support to Recreation Program Strategic Planning. Funding to support the activities of the Recreation Leadership Advisory Team (RLAT) is included in this program. The RLAT is composed of representatives from the division, district and project levels of the Corps natural resources management program. It provides input, advice and support to the Corps strategic planning for the recreation business program.

PROPOSED ACTIVITIES FOR FY 2012: Minimum/Recommended Program: Actions resulting from the implementation of the Recreation Strategic Plan will guide many of the support activities performed this FY. particularly in the areas of efficiency evaluation, communication and partnerships. The Recreation Budget Evaluation System (RecBEST) will be refined to increase the capability to monitor and report Recreation performance measures and evaluate and prioritize budget submissions in response to OMB guidance. The Recreation module of the Natural Resource Management Gateway will be further developed to address high priority needs. Demonstrations will be conducted to identify and communicate the benefits of the Corps recreation program and improve effectiveness in addressing the needs of ethnic minority visitors. Emphasis will be placed on improving recreation use monitoring procedures that will be incorporated into recreation performance measures. Customer satisfaction survey methods and benchmarking capabilities will be refined and fully integrated into program performance measures. Technical support will be provided to field staff to implement improved procedures. Support will be provided to standing NRM committees and task forces including: , Partnership Advisory Committee, Ranger CoP, Water Safety, Career Development etc. Support will be provided to Headquarters Recreation program staff regarding strategic planning, development of program evaluations, staffing evaluation and other high priority Headquarters initiatives. Provides resources for evaluation tasks associated with the implementation of the National Recreation Program Road Map.

ACCOMPLISHMENTS IN PRIOR YEARS:

Recent accomplishments include conducting an evaluation of NRM Staffing levels, support for the Recreation Strategic Planning team, development and implementation of a national survey of Park Rangers, refinement of the OMBIL Recreation module and development of platforms to market the CE recreation program on social media websites, (i.e. FaceBook and YouTube). Other past products include Recreation Budget Evaluation System (RecBEST), visitation estimation methodology and data collection and reporting tools, economic impact methodology and analysis tools, customer satisfaction survey and benchmarking tools implemented at all CE projects, studies on recreation preferences of ethnic groups including cross-cultural communication issues, and support for development of a strategic context as a foundation for transitioning to a performance based environment, to include performance based budgeting. The Natural Resources Management Gateway was developed as a knowledge management tool for the NRM community and is compatible with other Corps KM and Community of Practice initiatives. The Corps Lakes Gateway was developed and provides information to millions of visitors annually on recreation opportunities at Corps projects (in FY10 over 45 million page views). The Corps Lakes Gateway also delivers Corps recreation information to the interagency RecreationOneStop project in support the Administration's E-GOV initiative. Guidance and appropriate tools were developed to improve interpretive services associated with the CE recreation program that advance the public's understanding of the environment and the Corps Environmental Operating Principles. Support to Headquarters was provided to refine the recreation business program strategic plan, utilizing input from the RLAT and stakeholders. Goals and objectives were refined, and actions identified to achieve them. Innovative partnership approaches were developed and field guidance prepared to improve stakeholder participation. Stakeholder outreach was conducted to develop partnerships for strategic initiatives.

Stewardship Support Program \$750,000

AUTHORIZATION: This program is conducted under the authority of ER 1130-2-540, Chapter 7.

JUSTIFICATION: The Stewardship Support Program (SSP) was established in FY 02 to provide broad support to Environment-Stewardship function at operating projects by assisting in the identification of national program needs, the development of new national program activities, strategic program planning, and the recommendation of national stewardship program funding priorities. Support will be provided in refining the Environment–Stewardship business program strategic

plan and goals, and budget processes, to address the targeted outcomes of the overall Corps CW Strategic Plan, using input from the Stewardship Advisory Team, other associated Corps business programs and stakeholders. Goals and objectives have been refined, and actions will be identified to achieve them. Funding this program from a single source reflects the nationwide application and supports standardization in program direction and outputs.

The SSP supports the Environment–Stewardship program by addressing issues or initiatives that have a broad applicability to many USACE Civil Works projects. The three basic components of the SSP are:

(1) Focused Management Actions and Studies. These activities are to implement a course of action or practice within field office activities, a region, or nationwide. Examples of management actions might include developing/ assembling an array of management practices for establishing riparian habitat, or creating a forum to share common experiences, build teams, and disseminate information. Examples of management studies might include the riparian corridors research or conducting studies on management of threatened and endangered species.

(2) Policy Guidance and Management Support. Such activities relate to the development and/ or implementation of guidance. Examples of policy guidance included facilitating cooperative agreements with stewardship non-governmental organizations, or amending the annual Budget Engineer Circular to provide emphasis on conducting inventories of regionally or nationally significant resources.

(3) Information Exchange. These activities are designed to build, integrate, and share our knowledge base to support greater understanding of the environment and the impacts of program work.

PROPOSED ACTIVITIES FOR FY 2012:

The SSP will conduct focused management action studies and recommend guidance to address high priority program efficiency and effectiveness concerns, including support for the development of a “Roadmap” for the Environmental Stewardship Program and refinement of the OMBIL Environmental Stewardship module. . Efforts will continue in support of performance based budgeting including further development of performance measures, development of strategies to improve program outputs and outcomes, and refinement of E-S BEST and related guidance to monitor program performance. Provides national support for two areas of strategic and performance priority within the Environmental Stewardship program. Identifying threats and significance of natural resources across the nation will provide a better evaluation and achievement of national strategic goals. Under the additional funding new technologies and national data sets will be utilized to more objectively and accurately evaluate threats and significance. Funding will also assist in the completion of the level one natural resources inventory and assessing conditions of project lands. Progress in recent years on developing standards, published protocols and web-based data entry programs have resulted in improvements in advancing completion of the inventories. Increased technical support to the field will provide training and guidance to assist in completion of the level one inventories during 2011. This funding will result in completion of one of the PART measures and allow focus of 2013 funding to be targeted to other high priority needs.

The SSP will also continue support of the Environment-Stewardship Community of Practice (CoP) including further development of the NRM Gateway for information and technology exchange. These activities will provide benefits in increased program effectiveness through implementation of assessment recommendations. Improved program performance will be facilitated through increased CoP access to best practices and policy guidance, and effective development and execution of performance based budgets.

ACCOMPLISHMENTS IN PRIOR YEARS: The allocation of project operations and maintenance funds to conduct specified nationwide (multiple project) activities to improve the efficiency and cost effectiveness of the Environment-Stewardship business program has been employed, with subcommittee staff knowledge and concurrence, since the late 1990s for activities similar to those identified for FY 2012. Past products of the Stewardship Support Program include the initial set of Environment-Stewardship program performance measures, which are in accord with the Government Performance and Results Act and used to measure and monitor priority program outputs and outcomes; the Stewardship module of the Operations and Maintenance Business Information Link (OMBIL), which receives and stores selected data concerning the stewardship of project natural resources, and which provides for retrieval of that information by all levels of the Corps; the pilot version of the Environment-Stewardship Budget Evaluation System (E-S BEST) used to assist in developing budget scenarios and ranking budget proposals. Components of the Environment–Stewardship portion of the Natural Resources Management (NRM) Gateway, a knowledge management tool for the NRM community, have been completed and others are underway. Support to Headquarters was provided to develop and refine; the Environment-Stewardship business program strategic plan and 10-year development plan, the program management plan for the Environment-Stewardship Community of Practice, and the annual Environment-Stewardship program development guidance. Formulation of a methodology to evaluate the threats to, and significance of CE managed natural resources. This methodology is currently being implemented by NatureServe.

Optimization Tools for Navigation (OTN) Program \$392,000

AUTHORIZATION: Related efforts are necessary to provide practical quantitative & predictive tools and data for minimizing and optimizing the costs of dredging of Federal navigation projects, leveraging development & improvement of channel design criteria across the Corps, the U.S. Navy, & other government/academic institutions. These efforts are essential to providing data & analysis for efficient & effective management of critical national waterborne navigation infrastructure.

JUSTIFICATION: To maintain the Nation's Federal navigable waterways, nearly 270 million cubic yards of material are dredged in the U.S. annually. In addition, the national "2020" plan for deeper & wider channels to support emerging commercial cargo vessel designs brings great uncertainty on credible prediction of maintenance requirements. Changing political, engineering, environmental, & demographic factors will increasingly influence project costs. Additionally, constrained appropriations to support the O&M dredging program have resulted in full channel dimensions being available less than an average of 35% of the time at the 59 highest use U.S. harbors, with even lesser availability at lower use projects. This impacts the reliability and economic competitiveness of U.S. ports and raised stakeholder objections that the surplus in the Harbor Maintenance Trust Fund is not being appropriated for the purposes intended. OMB has requested the Corps develop metrics that would help demonstrate the return-on-investment to justify increased dredging funds. The National Navigation Operation & Management Evaluation Assessment System (NNOMPEAS) is being developed with the Waterborne Commerce Statistics Center (WCSC) to demonstrate whether such a metric can be provided across all harbors and waterways. This tool will use domestic & foreign trade data to determine & analyze the loaded drafts of vessels of all recorded vessel calls for individual harbors and channels & will provide for estimation of transportation cost benefits foregone with reduction or absence of maintenance and will offer the potential to optimize maintenance dredging requirements for individual channel reaches & across much of the overall USACE dredging program. The NNOMPEAS initiative is supported by the HQ Navigation Business Line Manager and by ASA(CW). A companion tool being developed under the OTN program is the Channel Analysis Design Evaluation Tool (CADET), which will allow sophisticated vessel hull modeling not previously available. IWR is conducting this modeling activity jointly with ERDC & the U.S. Naval Academy (USNA). CADET will render advanced technologies for methods of analysis & compilation of new physical & numerically-generated data sets descriptive of vessel movement & response within confined waterways. Technological change & emerging vessel hull configurations in the shipping industry require prudent foresight & ongoing efforts to adequately plan for future

maintenance dredging activities. Resulting datasets & analytical procedures will in turn be practically applied to more accurately determine channel dimension requirements associated with evolving or foreseeable vessel designs. This vessel hull modeling effort will also generate essential data on hull designs, vessel dynamics & channel configuration in order to optimize and minimize ongoing & future maintenance dredging requirements.

PROPOSED ACTIVITIES FOR FY 2010: Proposed FY 12 funds will be used to accelerate the nationwide deployment beyond the 59 high use ports of NNOMPEAS methodology and allow its use as a budgeting tool per the direction of HQ and OMB. These funds will also continue physical model hull construction & testing in collaboration with ERDC, NAVSEA-CARDERO, the USNA, & for the coordination & technical support for vessel motion research with completion of the analysis being undertaken regarding U.S. Naval vessel requirements.

ACCOMPLISHMENTS IN PRIOR YEARS: FY 09 and FY 10 funds were used to work with WCSC and the South Atlantic Division to develop NNOMPEAS linkages between vessel call and vessel characteristic data sets, develop discrete channel segments and compile dredging costs and quantities for these segments at selected proof-of-concept harbors, and conduct test runs for these harbors. FY 10 funds were used to complete the 59 high use ports and also supported continued work of ERDC, CARDERO, & IWR activities for improvements to CADET vessel hull modeling effort and initiation of physical testing of model hulls.

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Coastal Inlets Research Program

SUMMARIZED FINANCIAL DATA:

President's Budget for FY 2011	\$3,000,000
Allocation Requested for FY 2012	\$2,700,000
Change in FY 2012 from FY 2011	\$ -300,000

AUTHORIZATION: Authorization for the Corps of Engineers' Engineer Research and Development Center (ERDC) to conduct R&D is codified in 10 U.S.C. 2358: "The Secretary of Defense or the Secretary of a military department may engage in basic research, applied research, advanced research, and development projects that are necessary to the responsibilities of such Secretary's department in the field of research and development."

JUSTIFICATION: In FY 2008, the Corps spent approximately \$1 billion in maintenance dredging of 245 million cubic yards from Federal navigation channels. Adjusted for inflation, dredging costs have increased approximately \$4.9 million/year from FY 1963 through FY 2009 with increases in number, length, and depth of navigation channels (<http://www.iwr.usace.army.mil/ndc/dredge/ddhisMsum.pdf>). For the same period, also adjusted for inflation, dredging costs have increased from \$1.53 to \$3.30 per cubic yard and are likely to increase in the future because of increasing fuel prices. To be competitive, harbors and ports must deepen and widen navigation channels to accommodate larger vessels. Maintenance of more than 500 coastal inlets and harbor channels is a significant portion of the total dredging cost, because the ages of many jetties and breakwaters exceed 100 years. Coastal inlet navigation channels must be maintained in a complex environment of waves, tidal and wave-induced currents, sediment transport, and vessel-induced flow and wake. Modifications to coastal inlet channels and jetties can have a profound effect on the integrity of the navigation structures, adjacent beaches, and estuary. Demand for regional sediment management practices and mitigation for engineering activities includes innovative creation of nearshore berms with dredged sand intended as a source to nourish neighboring beaches. Renewable, cost-effective placement sites for dredging must also be designed such that sand moves onshore, the fine components are dispersed offshore, and re-deposition into the navigation channel is minimized. Such projects require three-dimensional characterization of hydrodynamics, sediment transport, and morphology change, as well as geomorphologic approaches. Thus, navigation project O&M, structure integrity and implications of ongoing and future dredging actions must be considered within a sediment-sharing inlet system. The Corps needs to advance knowledge and tools to better predict future channel shoaling, and to make transparent and uniform decisions on prioritization of funding. This applied research and development is necessary to provide quantitative and practical predictive tools and data to reduce the cost of dredging Federal navigation projects, maintain inlet jetties, identify potential unintended consequences, mitigate for engineering activities related to navigation channels, prioritize maintenance options within budget constraints, and support national security efforts to protect waterways and ports. The Coastal Inlets Research Program provides tools to engineers and decision makers for developing reliable solutions and practices to reduce the cost of maintenance and operation of Federal navigation projects.

PROPOSED ACTIVITIES FOR FY 2012:

- Integrate Channel Portfolio Tool (CPT) into the formal Corps Civil Works Operations and Maintenance (O&M) budget development process via development of an Engineering Circular with budget guidance for FY2013. The CPT provides a consistent, transparent, geo-referenced decision-support framework for determining channel performance and economic viability. Guidance is directed to Corps personnel at all levels of management concerning application of CPT towards dredging work package formulation, as well as a methodology for meeting system-level performance objectives for the Corps' Navigation infrastructure of maintained channels and waterways.

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- Work with Corps-HQ Asset Management initiative to adopt the CPT and the Coastal Structures Management, Analysis, and Ranking Tool (CSMART) as part of the corporate framework for coastal navigation asset management. Both tools provide decision-support for performance-based budgeting of Corps coastal navigation infrastructure in keeping with the overall stated mission of the Asset Management initiative.
- Release GenCade V. 1.0 for regional applications; published web-based Wiki Users Guide and Technical Reference. GenCade is a regional shoreline and inlet long-term morphology change model within the Surface-water Modeling System (SMS). Gencade was beta tested at Onslow Bay, NC, Matagorda Bay, TX, and Fire Island Inlet, NY.
- Develop utility for formulating calculated sediment budgets within the Sediment Budget Analysis System (SBAS) using output from Coastal Modeling System. Sediment budgets are a fundamental assessment created for existing and with-project conditions. This upgrade to SBAS will allow calculated budgets based on numerical modeling simulations, as well as traditional budgets based on historical data analysis.
- Release beta version of three-dimensional Coastal Modeling System (CMS-3D) including three-dimensional dispersion and transport of temperature, salinity, and multiple-sized sands and fines. CMS-3D was validated with channel infilling data from navigation projects at St. Marys Entrance Channel, FL/GA; and Houston-Galveston Ship Channel, TX. CMS-3D is documented in web-based Wiki-Technical Reference, Wiki-Users Guide including guidance for when 3D is required and protocols for seamless change between 2D and 3D, and in Wiki-Example Applications.
- Apply CIRP technologies for long-term morphology change and channel shoaling to reduce O&M costs and improve guidance for optimal dredged material placement. Develop testing criteria for when navigation jetty structures need to be rehabilitated to reduce O&M costs.
- Conduct regional workshops and webinars for Districts, academia, and consultants. Release updated web-based Wiki- Technical References and Wiki-User Guides for the CMS, GenCade, CPT, and CSMART.

ACCOMPLISHMENTS IN FY 2011: The CIRP successfully completed all project requirements and produced the following products:

- Developed and released Version 2.0 of the CPT, which includes historical Automatic Identification System (AIS) ship-tracking data through federal channels for showing the frequency with which Corps-maintained waterways are transited by commercial shipping vessels. Integrated three-dimensional channel definitions (3D Channel Framework) within the CPT platform for improved linkage with shoaling prediction models and survey management software. Developed capability in CPT v2.0 for District personnel to upload historical channel condition reports, as well as a query saver for documentation and easy transfer of CPT results through the Corps management hierarchy.
- Released Version 1.0 of CSMART on a web-based platform, with appropriate interface-sharing with CPT. Both decision-support applications are able to utilize similar viewing portals and criteria-specification menus, and CSMART also includes linkages to the Enterprise Coastal Inventory Database (ECID) as well as the Coastal Structures Condition Assessment (CoSCA) tools, thereby constituting a comprehensive asset management suite for coastal navigation infrastructure.
- Released CMS-2D upgrade for mixed sediment grain size calculations. Most coastal navigation channels shoal and migrate because of transport of mixed sand, silt, clay, and possibly fluid mud. This version of the CMS incorporates transport of mixed sand sizes ranging from fine sand/silt to gravel. Updated web-based Wiki-Technical Reference and Wiki-User's Guide.

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- Developed theory and tested CMS-3D. Three-dimensional wave, current, and sediment transport calculations are required for deep-draft navigation channels for which sediment transport can vary within the water column because of differences in salinity, density, sediment size, and forcing processes. Developed data sets for validation and tested CMS-3D; documented applications.
- Documented national and international experiences with nearshore berms. A nearshore berm is placement of dredged sediment with the purpose of providing a source of sand to feed the beach and reduce nearshore wave energy, while removing finer silt and clay that may be undesirable for direct beach placement. Developed morphologic change dataset for berm placement and evolution at Ft. Myers Inlet, FL and Panama City Inlet, FL. Improved CMS-2D to model nearshore berm migration as a function of sediment size. Documented findings in a draft journal article, web-based Wiki-based Technical Reference, and Wiki-based User's Guide.
- Released web-based Wiki guidance for Section 111 studies. This guidance gives an overview of how to conduct a Section 111 study using historical data and CIRP technologies, and develops indicators to assess when old Section 111 studies must be revisited to reduce federal liability. A Section 111 study is an assessment of federal responsibility for damage caused by navigation projects.
- Released web-based Wiki-based GenCade Users Guide for beta testing and conducted Webinar for GenCade applications. GenCade is a regional shoreline and inlet long-term morphology change model. Consultants applied GenCade to the East Coast of Florida for design of detached breakwater systems.
- In conjunction with District requests, applied CIRP technologies to Grays Harbor, WA; Noyo Harbor, CA; Ocean Beach, CA; Dana Point, CA; Barnegat Inlet, NJ; Fire Island Inlet, NY; St. Augustine, FL; Humboldt Bay, CA; Panama City, FL; East Pass, FL; and Oregon Inlet, NC, all Federal coastal inlets.
- Released CMS-2D application for real-time wave and current forecasting at Humboldt Entrance Channel, CA, to the National Weather Service. The real-time application uses offshore buoy data to forecast waves and currents at the entrance channel, which is then relayed to mariners.
- Updated web-based Wiki-Technical References and Wiki-User's Guides for CMS within the SMS, CMS-Wave, and CMS-Flow; Channel Shoaling Toolbox; Inlet Reservoir Model; and GenCade.
- Linked Channel Shoaling Tools to the CPT. Channel Shoaling Tools include analytical calculation methods as well as site-specific historical channel shoaling data to evaluate past and estimate future channel shoaling. Users can estimate O&M requirements as a function of deepening, widening, or lengthening a navigation channel. The link to CPT allows the Corps to evaluate how these modifications or a delay in O&M change shoaling rates and the resulting vessel transit in a particular channel.
- Conducted two tech-transfer workshops and three Webinars for Corps, consulting engineering companies, and academia including methodologies for long-term morphology change, channel shoaling estimations, CPT, CSMART, and GenCade. Recent peer-reviewed articles, technical documentation, webinar and workshop information are located at the CIRP website: <https://cirp.wes.army.mil> and product guidance is on the CIRP Wiki: http://cirp.usace.army.mil/wiki/Main_Page.

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Coastal and Ocean Data System (CODS) (formerly the Coastal Data Information Program (CDIP))

SUMMARIZED FINANCIAL DATA:

President's Budget for FY 2011	\$3,000,000
Allocation Requested for FY 2012	\$3,000,000
Change in FY 2012 from FY 2011	0

AUTHORITY: Authorization for the Corps of Engineers Engineer Research and Development Center (ERDC) to collect coastal field data is 33 USC 426a which originated with the River and Harbor Act of 1945, which originated in the River and Harbor Act of 1930. The latest Engineering Regulation governing the program is ER 1110-2-1406 dated 1990.

JUSTIFICATION: Ocean waves deliver energy to the coast and impact a wide array of Corps projects and operations. Real-time wave observations and an integrated network of previously observed and modeled wave data are imperative for operational guidance of USACE dredging, navigation, maintenance, and emergency operations. High quality wave information (real and/or modeled) are required for the design of beach and navigation projects, to implement Regional Sediment Management (RSM) strategies, to ground-truth numerical wave models and as boundary conditions for all USACE coastal modeling activities. Inaccurate and insufficient coastal and oceanographic data can result in operation and design problems for coastal navigation and storm damage reduction projects. Long-term and storm (metrological, wave, surge, current, and sediment transport) data are required to determine how climatic changes and extreme events will impact Corps' facilities, projects and mission operations.

Availability of high quality, long-term coastal wave observations varies widely nationwide with significant gaps in critical regions. For example, there were no deepwater directional wave measurements along the east coast of Florida during the 2004 hurricane season which could have been used to alert Corps and other emergency operation officials during the events, and for post-storm assessments. The same was true for Hurricane Katrina and the central Gulf Coast in 2005, a fact that hampered post-Katrina forensic efforts. The mid-Atlantic is similarly underserved, even though there are many authorized Corps projects that would benefit from high quality wave data. This national lack of available wave and storm data was highlighted as a critical issue by the Coastal Working Group of the Hydraulics, Hydrology and Coastal Community of Practice in a survey on data requirements in 2009.

The objective of the Coastal and Ocean Data System (CODS) is to develop and maintain a national, high-quality, long-term, integrated coastal wave and storm (both observations and model) data system. This will include storm events and beach morphology (where appropriate) and will also provide field useable applications for managing and using these data to evaluate damages, manage coastal activities, develop repair strategies, and generally support sustainable coastal and navigation projects under a variable climate and changing requirements.

Coastal and Ocean Data System activities include: 1) Wave Observations, 2) Wave Climates, 3) Comprehensive storm-event data sets and 4) Participation in the Interagency Integrated Ocean Observing System (IOOS).

Wave Observations: Observation efforts are conducted in partnership with the state of California and the Scripps Institution of Oceanography which maintains a network of shallow-water coastal gauges under their CDIP program (<http://cdip.ucsd.edu>). These observations are high resolution and of appropriate accuracy for use in Corps navigation and sediment transport computations. The data are automatically provided to national data servers of NOAA and are publically available. The popularity of the program is evident from the usage statistics, typically 200,000 hits per day (600,000 during storms) and over 4 gigabytes of daily data

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downloads. Usage has been increasing 20-30% per year. While these observations are concentrated on the west coast, recent additions under Corps funding have expanded the coverage to the Atlantic and Gulf coasts and to locations relative to major US ports. Observations are also coordinated with the National Data Buoy Center (NDBC) of NOAA which maintains deep-water meteorological buoys which include wave-measuring sensors. In FY09, the Interagency Ocean Observation Committee finalized the *National Operational Wave Observation Plan* developed by the USACE, in collaboration with the NOAA IOOS program office. This is a science-based expansion of the nation's wave observation program which identifies significant data gaps and defined measurement accuracy requirements. The accuracy specification was selected to satisfy the high-quality directional resolution required by Corps applications. Under the plan, national wave observations are co-managed by the Corps and NOAA. System expansion to include more gauging location will be developed through interagency collaboration and funding resources.

Wave Information Studies. The objective of the *Wave Information Studies* activity is to provide high-quality coastal wave hindcast model estimates, wave analyses products and decision tools nationwide. The focus is to integrate measurements with model results so that the Corps has access to all available wave information (real-time observations, model hindcasts, and long-term archives) to perform their mission. Wave estimates are hindcast using high quality wind fields and the latest wave modeling technology. To satisfy the Corps requirement for risk-based designs, at least 20-30 years of wave climatology data are required. Hindcast datasets provide hourly wave information for locations every few miles along the coast. Because of this coverage, these datasets are routinely used by the Corps, the coastal engineering community, and the public for coastal studies. The long-term hindcast wave data are accessible through a website which receives over 600 monthly requests for data downloads (<http://frf.usace.army.mil/wis/>). Available gauge observations are used to confirm and validate the hindcast/model data, for quantifying actual conditions, and for understanding long-term wave climatology. Under this activity, wave data users will be able to access either hindcast or observed wave data transparently and will be able to access powerful analysis products and tools for climate and extreme event planning and for decision making using either observations or model estimates, or both.

Storm Event Data Sets. Corps project designs require estimates of the extreme conditions which define and quantify the acceptable level of risk. Because project life cycles can be 50-100 years, it is desirable to extend the extreme event climatologies to be as long as possible, much longer than the maximum wave observation record, which is only ~35 years. Storm event data are extracted from the observation and wave hindcast data and combined with other related variables like storm track, wind fields, atmospheric pressure, and surge levels. Major storms which predate available wave data are individually hindcasted.

The Integrated Ocean Observing System Participation: CODS is a primary Corps contribution to the *Integrated Ocean Observing System* (IOOS) as authorized in the Integrated Coastal and Ocean Observation System Act of 2009 (PL No. 111-11). IOOS is an interagency activity with NOAA as the lead agency. Participating agencies pool, share and coordinate their ocean observations for the benefit of all. To facilitate the coordination, agencies are requested to detail staff to the IOOS program office. Corps' participation in IOOS workshops, regional associations, and meetings helps to insure that the IOOS is serving Corps requirements and that Corps districts and divisions are contributing to, and benefiting from IOOS real-time and archive coastal data for use in planning, operations, environmental assessment, climate change and emergency response.

PROPOSED ACTIVITIES FOR FY 2012:

Planned activities for FY12 will depend on the strategic plan for wave observations and data which is being developed in FY11. The list below, which is based on activities to date, is likely to change. Note too that since this is an operational program, many of the activities continue from FY11.

- Continued support of existing wave measurements including the directional wave measurements currently conducted by the Scripps Institution of Oceanography and expansion of the nation's wave gauging system, as appropriate for Corps mission and requirements.

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- Update the Wave Information Studies wave hindcasts for two basins to the present (2000-2010), creating a 30-year record. This is a much requested update by coastal Districts. Transition the wave hindcast database to an HDF5 archive for faster access using a common format.
- Coordinate interagency collaboration on directional wave measurements. This includes annually updating the inventory of operating wave sensors and comparing it to the national plan and coordination with the international wave measurement community under the governing body of Joint Oceanographic Commission on Oceanography and Marine Meteorology (JCOMM, <http://www.jcomm.info/wet>). JCOMM has adopted the Test & Evaluation goals of the National Operational Wave Observation Plan and is continuing to implement these goals.
- Continue to support the activities of IOOS by participating in the Interagency Ocean Observation Committee (IOOC). Promote the involvement of Corps District and Division offices in their local IOOS regional associations through meetings and workshops. Continue the 50% Corps detail to the NOAA IOOS program office that started in FY10 and maintain a web presence for Corps IOOS activities.

ACCOMPLISHMENTS IN FY 2011:

- Developed a Strategic Plan for Wave Information in the Corps, including observations, hindcasting, staffing and investments. Began first steps toward implementation. This is a critical activity to reassess and refocus ongoing activities based on changes in technology and field requirements.
- Supported the activities of IOOS by participating in the Interagency Ocean Observation Committee. Promoted the involvement of Corps District and Division offices in their local IOOS regional associations through 3 workshops. Continued the 50% Corps detail to the NOAA IOOS program office that started in FY10 which has been well received and effective.
- Continued interagency collaboration on directional wave measurements. Co-led a workshop conducted by Alliance for Coastal Technologies to define a testing protocol for use in the evaluation of wave sensors, a critical step in insuring that deployed sensors satisfy the accuracy requirements in the plan. Continued to work with the international wave measurement community under the governing body of JCOMM.
- Continued support of existing wave measurements including the directional wave measurements currently conducted by the Scripps Institution of Oceanography for the Corps.
- Continued effort to update the Wave Information Studies website to a new map based site allowing much improved access to wave hindcast data. Reevaluated the Pacific have hindcast products and added them to the website. Procured the wind fields required to extend the hindcasts from 1999 to 2010).

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	Total Estimated Federal Cost	Allocation FY 2010	President's Budget FY 2011	Tentative Allocation FY 2012
Response to Climate Change at Corps Projects	Annual Program	2,408,000	5,000,000	5,000,000

AUTHORIZATION: Various authorities including Section 731 of the Water Resources Development Act of 1986, Section 216 of the River and Harbor and Flood Control Act of 1970, and specific project and purpose authorizations.

SCOPE:
Climate change has the potential to affect almost all the missions of the U.S. Army Corps of Engineers (USACE). The objective of this effort is to partner with other Federal science and water management agencies, and other stakeholders, to develop practical, nationally consistent, and cost-effective approaches and policies to reduce potential vulnerabilities to the Nation's water infrastructure resulting from climate change and variability. The operations and water management control activities associated with the existing capital stock of USACE water projects provides the largest challenge given future climate change and variability. Nationally consistent, but regionally tailored water management adaptation strategies and policies are needed to ensure continued effective and efficient water operations. Such policies must balance project operations and water allocations within authorized project purposes, with changing water needs and climate driven changes to operating parameters, working in close coordination with a wide variety of intergovernmental stakeholders and partners. This effort will provide planning and engineering guidance to ensure future infrastructure is designed to be sustainable and robust to a range of potential changes. USACE is coordinating with other Federal and State agencies on adaptations to climate change for water resources and coastal management, including the U.S. Geological Survey (USGS), U.S. Bureau of Reclamation (Reclamation), National Oceanic and Atmospheric Administration (NOAA), and other Federal, state and local agencies. The activity will provide a critical mass of resources to support the development of consistent policies among Federal agencies toward climate change. The following are some of the ongoing and proposed activities:

- Workshops and pilot studies on methods and policies to address climate change for water management, coastal management, and environmental restoration.
- Development of a risk management framework for evaluating the effects of climate change uncertainties and to guide decisions during USACE project and system planning and lifecycle management.
- Evaluation of the impacts of climate change on ecosystems and the potential effects on USACE operations and ecosystem restoration projects.
- Extended analysis of oceanographic factors influencing coastal risks, including analysis of changes in winds, waves and water levels in partnership with NOAA, USGS, and universities; develop strategies for adapting to future coastal inundation events in collaboration with Federal agencies and stakeholder networks.
- Development of methods and policies to deal with hydrologic frequency analysis under changing conditions.
- Support regional climate change adaptation efforts that include collaboration among Federal agencies, states, tribes, local governments and other stakeholders.

JUSTIFICATION:
There is increasing concern among the public and the scientific community regarding climate change. In order to be responsive to these concerns, USACE is committed to working closely with other Federal agencies, utilizing risk-based planning and a proactive adaptive management approach to infrastructure life-cycle management as a framework for USACE adaptation to climate change. Climate change may affect almost all USACE missions: flood risk management, inland navigation, ecosystem restoration, coastal protection, hydropower, recreation, and water supply. USACE views these responsibilities from a life-cycle standpoint, which starts with planning processes, engineering and ecosystem management designs, and continues with development and implementation of project and

system operating plans - all of which need to adapt to changing conditions. USACE must remain a leader in developing and applying adaptive, life-cycle approaches and policies to address potential climate change impacts to ensure civil works infrastructure can respond to the Nation's needs, now and in the future.

FY 2010 Accomplishments:

- Continued joint activities with the U.S. Bureau of Reclamation (USBR), the U.S. Geological Society (USGS), the National Oceanic and Atmospheric Administration (NOAA) and other Federal agencies on climate change and water management.
- Supported USACE HQ on climate change policy and interagency climate change initiatives, including the Federal Interagency Climate Change Adaptation Task Force. Worked closely with the Council on Environmental Quality (CEQ) and other Federal agencies to support the activities of the Task Force and its Working Groups.
- Completed a report with Reclamation that identifies capability gaps in applying climate information in water management decision making ("Addressing Climate Change in Long-Term Water Resources Planning and Management User Needs for Improving Tools and Information").
- Initiated a vulnerability assessment of the existing portfolio of USACE Civil Works systems and projects including river basins and coastal regions.
- Initiated work on an Engineer Technical Letter that will provide "Procedures to Evaluate Sea Level Change Impacts and Response."
- Initiated a joint pilot study with Reclamation to evaluate impacts of climate change on sedimentation rates and reservoir capacity.
- Provided support to the National Integrated Drought Information System (NIDIS), particularly the NIDIS pilot study in the Southeastern United States.

FY 2011 Accomplishments and Activities:

- Developed a risk management framework for evaluating the effects of climate change uncertainties in the USACE Civil Works program and to guide decisions during project and system planning and lifecycle management. Began application of the framework to selected USACE missions, including flood risk management and ecosystem restoration.
- Wrote a draft report that evaluates the impacts of climate change on ecosystems and their potential implications for USACE ecosystem restoration projects ("Climate Change Implications for Planning Ecosystem Restoration Projects"). Initiated coordination with the Department of Interior Climate Science Centers and Landscape Conservation Cooperatives to provide science for ecosystem restoration.
- Completed regional climate impact assessments for the Western States, Hawaii, and Alaska. Conduct pilot studies on 1) climate change and water management and 2) sea level rise.
- In collaboration with Reclamation and USGS, initiated development of methods and policies to deal with hydrologic frequency analysis under changing conditions.
- In collaboration with Reclamation and NOAA, wrote a draft report on "Addressing Climate Change in Short-Term Water Resources Operations and Management: User Needs for Improving Tools and Information."

FY 2012 Activities:

The following activities are planned for FY 2012:

- Provide practical guidance and policies for planners and engineers to deal with hydrologic frequency analysis and water resources management under changing conditions.
- Continued vulnerability assessment of existing portfolio of USACE Civil Works systems and projects; assess vulnerability of ecosystems impacted by USACE projects and systems.
- Initiate and support regional climate change adaptation efforts, such as pilot studies, vulnerability assessments, and regional climate change impact analyses, which include collaboration among other Federal agencies, states, tribes, local governments, and other stakeholders.
- Extended analysis of oceanographic factors influencing coastal risks starting with the Pacific Ocean Basin in FY2012; develop strategies for adapting to future coastal inundation events in collaboration with Federal agencies and stakeholder networks, starting in FY12 with the Pacific Basin.
- In support of CEQ's Interagency Climate Change Adaptation Task Force, develop partnerships and benchmarks that support climate change adaptation including Integrated Water Resources Management at the river basin scale, Adaptive Management, Flood Risk Management and Drought Management.

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Cultural Resources (NAGPRA/Curation)

SUMMARIZED FINANCIAL DATA:

President's Budget for FY 2011	\$5,500,000
Allocation Requested for FY 2012	\$4,500,000
Increase/(Decrease) in FY 2012 from FY 2011	(\$1,000,000)

AUTHORIZATION: The Native American Graves Protection and Repatriation Act (NAGPRA) enacted on 16 November 1990 contains data gathering, reporting, consultation, repatriation, and permitting provisions that have near-term and long-term implications for Civil Works programs and projects.

JUSTIFICATION: The Native American Graves Protection and Repatriation Act (NAGPRA) addresses the recovery, treatment, and repatriation of Native American and Native Hawaiian cultural items by Federal agencies and museums. As defined by the Act, cultural items are human remains, associated funerary objects, unassociated funerary objects, sacred objects, and objects of cultural patrimony. In FY 1994, the Corps began the process of inventorying human remains and associated funerary objects and completing summaries as mandated by the legislation. In addition, the Corps is responsible for curation of cultural resource materials collected from its water resources development projects. A Mandatory Center of Expertise (MCX), located at the St. Louis District, provides overall management of the Corps NAGPRA programs and serves as an information source and a centralized base for curation compliance and contracting. The MCX will facilitate the assurance of consistent nationwide program implementation and operation. The Corps is responsible for the curation of at least 46,255 cubic feet of artifacts collected from its water resources development projects and at least 3,511 linear feet of associated records. Curation of these materials, the largest volume of all federal agencies responsible for this activity, is required by a number of public laws with implementing guidance in 36 CFR Part 79. Corps collections represent over 80 percent of the total DoD collections. These extensive collections are located in hundreds of curation facilities across the nation. The costs are to accomplish NAGPRA work and to fund MCX curation support to the districts. The MCX, in providing NAGPRA inventories, will assist in establishing the extent of Corps holdings. Associated with efforts to complete NAGPRA and because of the fragile nature of many of the artifact and record collections, the MCX is seeking to accelerate the process of effectively managing the Corps curation efforts. Funding this item will ensure full USACE compliance with NAGPRA legislation and expedite the stabilization, proper storage, and curation support to all Districts.

PROPOSED ACTIVITIES FOR FY 2012: The MCX and Corps Commands will continue the process of inventorying Native American and Native Hawaiian human remains and associated funerary objects and complete summaries of unassociated funerary objects, sacred objects, and objects of cultural patrimony as mandated by the legislation. Information will be made available to interested individuals and groups through notices in the Federal Register. Through MCX provided funding, districts will continue to be engaged in formal consultation with tribes and organizations for the legislated purpose of repatriating cultural objects for which there are legitimate claims. The MCX will continue to fulfill its chartered activities in support of other military services and DoD, lead in the implementation of an agency-wide, long-term plan for the curation of USACE archeological collections (heritage assets). The MCX will also continue to work closely with USACE commands on the implementation of final guidelines and procedures for field collection of archeological materials and the long-term treatment of those collections. In this regard, the MCX will act as a source of expertise for processing and rehabilitation of USACE collections. Finally, the MCX will provide leadership in the development of a training curriculum on the treatment of heritage assets and working in consultation with all stakeholders, take initial steps to make this training available to USACE and other appropriate DoD managers and decision makers. As Corps compliance with NAGPRA Sections 5–7 approaches completion, the MCX will place staffing and other resources in a position to accelerate the rehabilitation and long-term management of archeological artifacts collections and associated records that are assessed to be at the greatest risk of deterioration or damage. MCX-CMAC will

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implement the initial phases of the curation task plan, which involves addressing the rehabilitation needs of USACE's most critical archeological collections.

ACCOMPLISHMENTS IN PRIOR YEARS: A Mandatory Center of Expertise (MCX), located at the St. Louis District, was established to provide overall management of the Corps NAGPRA programs and has served as an information source, a centralized base for curation compliance and contracting. The MCX has facilitated the assurance of consistent nationwide program implementation and operation. The MCX, in providing NAGPRA inventories, has assisted in establishing the extent of Corps holdings. Associated with efforts to complete NAGPRA, the MCX began the process of effectively managing the Corps curation efforts. A phased task plan for curation has been developed and is being implemented on at-risk collections. In addition, the MCX supports and leads the Veteran's Curation Project, whereby disabled veterans received training in proper identification and curation of artifacts, to give them additional qualifications for employment after military service.

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Dredge McFARLAND Ready Reserve

SUMMARIZED FINANCIAL DATA:

President's Budget for FY 2011	\$10,000,000
Allocation Requested for FY 2012	\$12,000,000

AUTHORIZATION: Section 2047(a) of the Water Resources Development Act (WRDA) of 2007, Federal Hopper Dredges, which amends Section 563, Hopper Dredge McFARLAND, of WRDA 1996, contains a provision requiring the Corps Hopper Dredge McFARLAND to be placed in a Ready Reserve status not earlier than 1 October 2009, and not later than 31 Dec 2009, and to use the vessel solely for urgent and emergency purposes in accordance with existing emergency response protocols.

JUSTIFICATION: Section 2047(a) requires that no individual project funds may be used to fund the dredge in its ready reserve status unless the dredge is specifically used in conjunction with a project. Prior to Fiscal Year (FY) 2010, and through the first quarter of FY 2010, the costs to operate the Hopper Dredge McFARLAND were charged to projects funded from the Operation and Maintenance appropriation, and were eligible for reimbursement from the Harbor Maintenance Trust Fund. The Hopper Dredge MCFARLAND was placed in a Ready Reserve status in December 2009 as required by Section 2047 of WRDA 2007.

PROPOSED ACTIVITIES FOR FY 2012: The Hopper Dredge McFARLAND will be required to perform emergency dredging work, but will not be assigned any scheduled hopper dredging work other than dredging exercises in the Delaware River and Bay. The Hopper Dredge McFARLAND will remain at the dock, with sufficient crew to respond within 72 hours to any unforeseen requirement. The dredge will be maintained in a fully operational state and perform approximately 70 days of routine dredging operations to test equipment and keep the crew trained and prepared. The dredge will be placed in an active status in order to perform work in those instances when private industry fails to submit a responsive or responsible bid for advertised dredging, or where industry has failed to perform under an existing contract.

ACCOMPLISHMENTS IN PRIOR YEARS: The Hopper Dredge McFARLAND was in an “active” status and performed approximately 140 days of work along the East and Gulf Coasts moving upwards of 6 million cubic yards of dredged material annually through FY 2009. The Dredge McFARLAND was funded annually through FY 2009 using project funds on which the vessel worked. In FY 2010 while in Ready Reserve, the McFARLAND completed 70 days of dredging in conjunction with scheduled training exercises and on two occasions was deployed to perform urgent dredging on the Mississippi River.

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Dredge WHEELER Ready Reserve

SUMMARIZED FINANCIAL DATA:

President's Budget for FY 2011	\$11,000,000
Allocation Requested for FY 2012	\$12,000,000

AUTHORIZATION: Section 237 of the Water Resources Development Act of 1996 (WRDA 1996) contained a provision requiring the Corps Hopper Dredge WHEELER to be placed in a ready reserve status.

JUSTIFICATION: Section 237 requires that no individual project funds may be used to fund the dredge in its ready reserve status unless the dredge is specifically used in conjunction with a project. Prior to Fiscal Year (FY) 1998, the costs to operate the Hopper Dredge WHEELER were charged to projects funded from the Operation and Maintenance appropriation, and were eligible for reimbursement from the Harbor Maintenance Trust Fund. In FY 1998, the Hopper Dredge WHEELER was placed in a ready reserve status as required by Section 237 of WRDA 1996.

PROPOSED ACTIVITIES FOR FY 2012: The Hopper Dredge WHEELER will remain in ready reserve status, which requires it to be able to perform emergency dredging work with no scheduled hopper dredging work assigned. The dredge will be placed in an active status in order to perform work in those instances when private industry fails to submit a responsive or responsible bid for advertised dredging, or where industry has failed to perform under an existing contract. A shipyard overhaul is in progress, with a scheduled completion of the second quarter of FY 2011.

ACCOMPLISHMENTS IN PRIOR YEARS: The Hopper Dredge WHEELER was kept at the dock, with sufficient crew to respond within 72 hours to any unforeseen requirement and to work for approximately six continuous weeks. The dredge was maintained in a fully operational state and periodically performed routine dredging operations to test equipment and keep the crew trained and prepared. During FY10, the Hopper Dredge WHEELER completed 156 days of dredging through a combination of training exercises and multiple deployments to perform urgent dredging on the Mississippi River. In almost every year since being placed in ready reserve status in 1998, the Hopper Dredge WHEELER was called upon to perform urgent dredging to assist industry dredges in restoring navigation channels and waterways.

Dredging Data and Lock Performance Monitoring System

SUMMARIZED FINANCIAL DATA:

President's Budget for FY 2011	\$1,150,000
Allocation Requested for FY 2012	\$1,150,000
Increase of FY 2012 over FY 2011	0

AUTHORIZATION: These efforts are necessary to provide dredging and lock data for efficient management of Congressionally authorized navigation projects, to meet the performance requirements of the Presidents Management Agenda (PMA), to supply data for programs that are rated by the Program Assessment Rating Tool (PART) as well as to respond to specific public laws, including PL 96-269 (Minimum Dredge Fleet), PL 100-656 (Small Business Set-Aside), for meeting the Government Paperwork Elimination Act (GPEA) and Clinger-Cohen/IT Management Reform Act.

JUSTIFICATION:

a. Dredging Data and Lock Performance Monitoring System: The dredging and lock data collection and processing programs provide information for the Corps operational and strategic management decisions; for performance indicators of the navigation projects and programs; for the budget formulation process; and input for improvement studies in direct support to the Navigation Business Line mission. Information includes Corps performed and contracted dredging (location, quantity, cost etc.); all lock activities (barges and tons of commodities, chamber unavailability, processing times, delays etc.), and physical descriptions of all the Corps owned/operated locks. The funds support the database management, operation, enhancement, quality control, user assistance, training, compliance with security requirements and ACE-IT services. Both systems are the sole source of dredging and lock data/information for the Corps, Federal government and industry. These databases are transactional systems within the Corps centralized Operations and Maintenance corporate information system. They are reported under OMBIL-Plus in ITIPS and the OMB 300b submittal accounting for \$566,372 of the overall OMBIL-Plus costs for FY 2012.

b. Future National Dredging and Port Requirements. Technological change in the shipping industry is a continual process requiring ongoing analytical efforts to estimate the nation's future maintenance dredging needs. Update of current and future vessel characteristics, channel dimensions, commodity origins-destinations, vessel cost parameters, and other shipping data are needed to support the Corps maintenance dredging program. Tasks include tracking world trade and vessel fleet forecasts; analyses of current and projected trade patterns; assessing capability of planned and underway channel improvements to meet current and future demand, and the collection and associated analysis of dredging information and performance data in support of CW navigation program decisions and budget priorities.

PROPOSED ACTIVITIES FOR FY 2012: Continue to support the Corps Navigation responsibilities and be responsive to changing data needs by maintaining the Lock and Dredging information systems and data warehouse; providing essential upgrades, security and user support; developing additional data warehouse reports to support emerging data requirements for the performance based budget; working closely with the LOMA team

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to develop and deploy new capabilities for the navigation information portal for Corps and industry; and work with the Inland Marine Transportation System (IMTS) to monitor performance as implementation progresses. Coordinate and share data with other navigation information databases such as Dredging Quality Management (DQM), Asset Management and RMS to reduce data redundancy and provide more robust information. Continue tracking forecasts for the world vessel fleet, commodities and trade; expand voyage ports-of-call information for containerships; and continue analyses of marine transportation system current and future channel and infrastructure requirements for coastal harbors and inland waterways. Provide dredging and lock analytical, technical, and data support for Corps HQ, division and district offices.

ACCOMPLISHMENTS IN PRIOR YEARS: Provided lock and dredging data and information critical for navigation performance measures, budget preparation and prioritization, the assessment of dredge bidding competition, national and regional trends in dredging costs and quantity, the annual small business reports for SADBU, and lock availability and performance. Integrated two separate lock data input schemes into a single data input process. Performed operations, maintenance, system upgrades, security and user support for dredging and lock data systems. Initiated and deployed a program to automatically collect real-time lock data of timing events to significantly improve data quality while providing the lock operator improved situational awareness, more flexibility in his ability to manage workload and more time to perform the primary function of safely locking vessels. Conducted in-depth review of Dredging Information System and implemented changes in response to the GAO study of benefits and effects of the Corps dredge fleet. Modified the Dredging Information System to meet a HQ requirement to track ARRA funded dredging projects. An overview of the status of U.S. harbor and inland waterway improvement projects was updated, including funding and project schedules. World trade forecasts were updated and world fleet database was obtained. Technical and analytical assistance provided on channel and navigation infrastructure needs to HQ and Corps offices.

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Dredging Operations Environmental Research (DOER) Program

SUMMARIZED FINANCIAL DATA:

President's Budget for FY 2011	\$7,000,000
Allocation Requested for FY 2012	\$6,300,000
Change in FY 2012 from FY 2011	-\$700,000

AUTHORIZATION: The Water Resources Development Acts from 1986 and following contain numerous provisions addressing contaminated sediments in navigation channels, dredged material management, and beneficial uses that mandate a continuing need for innovative and enhanced technology.

JUSTIFICATION: The Dredging Operations Environmental Research (DOER) program is the only research program in the Federal government that addresses the science, engineering and technology needs related to dredging and managing between 200 and 300 million cubic yards of sediment that must be removed from navigation channels, ports, and harbors in the United States every year. The risks and opportunities related to 1) contaminated sediments in navigation channels and harbors, 2) optimizing dredged material management, and 3) beneficial uses of dredged sediment to restore habitat, ecosystems, and coastal recreational services mandate a continuing need for developing and applying innovative practice and technology. Contaminant detection limits are now so low that sub-trace levels of toxic substances are identified. High profile contaminants continue to plague numerous Federal and permitted dredging projects. Traditional upland disposal areas have reached or are rapidly approaching capacity with few opportunities for new facilities. Aquatic placement of dredged material, which can provide both economic and environmental benefits, must be performed in a sustainable manner that addresses and manages the risks associated with contaminant exposures, the presence of threatened and endangered species, and other uses of the waterbody. Innovative management practices are required to ensure that environmental standards can be achieved for dredging operations in a way that minimizes costs while maximizing sustained environmental benefits from using dredged material to accomplish habitat and ecosystem restoration and produce recreational benefits. Existing knowledge gaps in relevant physical, chemical, biological, and engineering processes lead to inefficient operations, higher management costs, and constrained management and beneficial use options. Performance standards and guidance for existing and improved practices are critical needs. Risk-based assessment and management practices are needed to ensure both the economic and environmental viability of navigation dredging operations. Beneficial use/reuse of dredged material is a priority and environmental resource protection is a mandate; however, costs are increasing due to the constraints noted above. Continued economic viability and security of the Nation will depend upon our ability to remove, manage and beneficially reuse dredged material in a cost-effective and environmentally responsible manner. Continued engineering and environmental innovation will be essential to managing costs and risks.

The DOER Program is an integral and highly beneficial component of the Corps' navigation dredging and environmental protection missions. Dredging and dredged material management must be accomplished within a climate of increased dredging workload, fewer placement sites, increased environmental constraints, and decreasing fiscal and manpower resources. Balancing environmental protection, restoration opportunities and critical economic needs, while maintaining and enhancing navigation infrastructure, presents significant technical challenges. The DOER program has validated innovative technologies for managing high profile contaminants and developed risk-based assessments that will significantly reduce testing costs at virtually all harbors. Assessment and management practices developed by DOER are needed to sustain both the economic and environmental benefits produced by the USACE navigation dredging program.

Major focus areas of DOER include: (1) sediment and dredging processes, (2) environmental resource management, (3) dredged material management, and (4) risk management.

PROPOSED ACTIVITIES FOR FY 2012:

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- 1. Sediment and Dredging Processes:** The SDP Focus Area will 1) continue development of sediment budget methods for regions that include navigation channels in order to place dredge resuspension and transport within the context of all sediment sources in channels, leading to improved risk assessment and management for dredged material, 2) continue laboratory and field evaluation of new technologies for measuring dredged material processes, including cap stability, fine-scale dredged material sedimentation, wave interaction with dredged material, 3) develop process-based understanding to optimize beneficial use, including shallow water placement and open lake placement, 4) expanded development of a high resolution non-nuclear density probe to improve the Corps' capability to survey navigation and environmental (contaminated sediment) dredging projects to optimize project management, 5) evaluate and verify diesel fuel additives and alternative fuels to reduce fossil fuel consumption and greenhouse gas emissions, and establish a Corps paradigm for future fuel conversions (e.g. second generation biodiesels as they come online), 6) provide science and engineering to support Corps use of nautical depth in channels with fluid mud bottoms for safe, reliable navigation and efficient dredging project management. Specific FY12 products include:
 - Publish guidance document on “Resuspension Budgets for Regions with Navigation Channels and Dredging Operations”
 - Publish results of laboratory studies characterizing pipeline placement dynamics
 - Develop and publish new methods for quantifying flocculation in dredged material plumes in the far field
 - Publish methods for quantifying resuspension from dredged material placement mounds in wave-current environments
 - Publish methods to quantify near-bed dredge releases into the water column
 - Publish results of completed diesel fuel additive and biodiesel performance evaluations for reducing fossil fuel use and emissions
 - Publish results of channel fluid mud characterization with state-of-art hydro survey system and respective ship maneuverability model tests

- 2. Environmental Resource Management:** The ERM Focus Area will 1) initiate new investigations into management practices to protect endangered species during the construction and maintenance of navigation projects, with an emphasis on hydraulic entrainment and exposures to suspended and re-deposited sediment, 2) apply new far-field dredging process models in association with actual projects to demonstrate their utility in assessing risk factors for environmental resources, 3) obtain field data to verify the modeling tools, 4) complete research filling knowledge gaps related to status and recovery of Interior Least Tern, 5) evaluate new tools and technologies for protection of target species associated with restrictions placed on dredging projects, 6) continue assessments of underwater noise produced by various dredge types in relation to impacts on sensitive aquatic species, with an emphasis on placing dredging-induced noise into perspective with ambient sound levels in ports, harbors, and waterways, and 7) evaluate broader categories of beneficial use applications for habitat creation and restoration. Specific FY12 products include:
 - A new evidence-based strategy to resolve of both Threatened and Endangered Species and environmental windows issues
 - Publish results of field studies characterizing habitat use of Piping Plover at coastal engineering project sites with recommendations for protective measures
 - Publish findings related to improved technologies for detection of sturgeon and risk factors for sturgeon in relation to dredging operations
 - Publish results documenting fishery resource use of dredged material placement sites and associated beneficial uses of dredged material
 - Publish findings of investigations of effects of dredging on Pacific coast protected species
 - Publish results of new simulation tools for predicting exposures of fish eggs and larvae to sediment suspended by dredging operations
 - Publish results evaluating environmental risks associated with underwater noise produced by dredging operations
 - Document opportunities for new aquatic beneficial use alternatives for dredged material
 - Publish results evaluating new technologies for remote detection of mobile aquatic organisms in the vicinity of active dredging operations
 - Complete initiatives, including case studies, that illustrate embedding “Working with Nature” concepts into the planning and conduct of O&M navigation projects

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- 3. Dredged Material Management:** The DMM Focus Area will: 1) develop tools for operations managers to perform screening-level analyses to expedite operational design, 2) develop a numerical analysis tool capability to systematically evaluate numerous dredged material placement options to identify cost effective and environmentally beneficial options, 3) provide a consistent, user-friendly modeling system framework to increase efficiency in model use and application, 4) improve and develop models used for simulating dredged material placement from hoppers and barges and continuous discharges from pipeline in order to expand capability to optimize placement operations and increase beneficial use of dredged material, 5) develop tools to support placement of dredged material in nearshore and wetland conditions for the purpose of building land or enhancing habitat, 6) develop science to inform evaluations of impacts and benefits resulting from open water disposal of dredged material, 7) develop, verify, and demonstrate new mixed sediment (sand/silt/clay) transport algorithms for complex nearshore and shallow-water environments, 8) provide automated methods to maximize dredging production and reduce inspector costs. Specific FY12 products include:
- Publish results of Particle Tracking Model to perform environmental assessments of dredged material
 - Complete new two-phase flow models for barge placement of dredged material
 - Publish results of new open water dredged material placement models for continuous material flow
 - Publish study results demonstrating nearshore beneficial use projects for building land or enhancing habitat
 - Publish results of an assessment of impacts and evaluating open water placement in the Great Lakes
 - Develop algorithms in a new model for mixed sediment transport and publish user manual
 - Develop GIS and decision support tools for dredged material placement option evaluation software
 - Publish method and software for use as an alternative dredge contract payment basis to optimize dredge production
 - Publish resuspended sediment budget methods for navigation channels, ship movement, and dredging
- 4. Risk Management:** The RM Focus Area will 1) develop quantitative methods and tools to support analysis of the environmental, engineering and economic risks associated with navigation dredging and dredged material management, 2) define and expand methods for using cost efficient methods for improving chemical characterizations of dredged material using passive samplers, 3) publish demonstrations of decision modeling to facilitate quantitative, comparison-based decision making to optimize dredged material management, beneficial use, and risk management, 4) document innovative treatment methods that can be applied to dredged material to reduce costs associated with managing contaminated sediments, 5) publish design guidance on the use of innovative capping as a lower cost alternative to upland placement of contaminated dredged material, 6) publish expanded modeling capability to address far-field contaminant transport resulting from dredging operations, 7) provide defensible, quantitative support for risk-informed decision making that reduces controversy, conflict, and schedule delays for projects. Specific FY12 products include:
- Guidance on passive sampling technologies using organism surrogates to measure uptake of chlorinated compounds
 - Publish decision models to guide use of dredged material to accomplish habitat and ecosystem restoration
 - Publish application of high-fidelity contaminant fate and transport model to improve the accuracy of risk assessments
 - Refine model for evaluating contaminant bioaccumulation and risks for aquatic species
 - Publish descriptions of innovative biotechnology methods for contaminant analyses
 - New, reduced-cost sediment bioaccumulation test methods
 - Publish findings linking contaminant mixtures in tissues with toxicity to support risk management decisions
 - Design specifications for reactive caps and barriers for managing contaminated dredged material

ACCOMPLISHMENTS IN FY 2011:

The DOER Program successfully completed all of the project requirements and completed the following products:

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1. Sediment and Dredging Processes: Continued development of process-based understanding of dredging and dredged sediment processes needed to evaluate risks relevant to dredging operations. Published results of laboratory studies on continuous discharge (pipeline placement) and clamshell resuspension/residuals. Performed and published laboratory and field studies on dredge effluent aggregation, flocculation, settling, and deposition in far field plumes. Initiated development of methods for sediment budgets in association with dredging operations. Evaluated emerging technologies for fine-scale sedimentation measurements for material released during the dredging process. Developed a high resolution non-nuclear density probe to improve the Corps' capability to survey navigation and environmental (contaminated sediment) dredging projects. Converted four Corps' diesel-powered vessels to run on biodiesel to evaluate user operability aspects (engine adaptability, biodiesel availability, etc) and emission reduction performance and published results. Characterized channel fluid mud by surveying with state-of-practice hydrographic system in conjunction with laboratory tests conducted on sediment samples.

2. Environmental Resource Management: Expanded evaluations of efficient protection measures for Threatened and Endangered Species to minimize costs and time delays associated with achieving regulatory compliance. Evaluated new frameworks for setting environmental windows for sea turtle protection. Completed field investigations (in collaboration with the Norfolk and San Francisco Districts) of risk factors for sturgeon species during maintenance dredging operations. Published results of studies related to habitat management and protection of bird species. Demonstrated new technologies for detection of protected manatees in the vicinity of dredging projects to optimize project performance. Published findings of environmental benefits of open-water dredged material disposal options for providing fish habitat enhancement.

3. Dredged Material Management: Provided an integrated web-based system to access, visualize, analyze, and archive national and regional dredging data and information. Developed model to assess the impact of contaminated bottom sediments on surface waters and the effectiveness of capping contaminated sediments. Published results of an assessment of nearshore and wetland beneficial use projects for building land or enhancing habitat. Published report on restrictions to open lake placement in the Great Lakes and opportunities for reducing impacts. Published results documenting a new conceptual sediment transport model for mixed sediment transport. Developed improved dredged material placement option evaluation software. Developed dredging data trends analysis tools to analyze and identify risk factors for sea turtle takes, calculate entire U.S. hopper dredge fleet utilization factors, and calculate a hopper dredge economic load analysis tool to optimize dredge production. Published results of study identifying applicability, feasibility, and strategies for optimizing agitation dredging. Developed hopper dredge bin measurement method and analysis software to conduct two case studies as alternative contract payment basis to optimize dredge production.

4. Risk Management : Defined and published methods for using passive sampling technologies to measure bioavailability and uptake of chlorinated compounds in less time and at lower cost. Developed and published decision models to guide dredged material management options and beneficial uses. Expanded development of high-fidelity contaminant fate and transport model to improve the accuracy of risk assessments. Refined models for evaluating contaminant bioaccumulation and risk to relevant aquatic and Threatened and Endangered Species. Developed innovative biotechnology methods for conducting contaminant analyses. Published methods for reduced-cost sediment toxicity and bioaccumulation test methods. Published findings linking contaminant mixtures in tissues with toxicity to support risk management decisions. Developed design specifications for reactive caps and barriers as a low cost and environmentally acceptable option for managing contaminated dredged material

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Dredging Operations Technical Support (DOTS) Program

SUMMARIZED FINANCIAL DATA:

President's Budget for FY 2011	\$2,000,000
Allocation Requested for FY 2012	\$2,820,000
Change in FY 2011 from FY 2011	\$ 820,000

AUTHORIZATION: Authorization for the Corps of Engineers Engineer Research and Development Center (ERDC) to conduct R&D is codified in 10 U.S.C. 2358 ("The Secretary of Defense or the Secretary of a military department may engage in basic research, applied research, advanced research, and development projects that are necessary to the responsibilities of such Secretary's department in the filed of research and development.")

JUSTIFICATION: Maintenance of the nation's navigation infrastructure requires compliance with numerous complex environmental statutes and Presidential Executive Orders. The Dredging Operations Technical Support (DOTS) Program fosters a "one-door-to-the-Corps" clearinghouse for access to comprehensive information on technology related to navigation O&M functions, including technology demonstrations and training essential to all stakeholders involved in Federal and permitted navigation projects. DOTS is structured as a centralized source for technology transfer that maximizes cost effectiveness and facilitates expeditious and consistent implementation of national policies and laws based on complex technical requirements. The DOTS Program fosters application of state-of-the-art technologies and ongoing research results for high priority problems identified by field offices. Emerging environmental concerns often cause uncertainty and unanticipated difficulties in the administration of the Corps' navigation dredging program. The DOTS program's technology transfer function provides access to an extensive, up-to-date, consistent technology base whereby timely, proactive responses to technical issues can be made as they emerge. This approach promotes networking and solutions to common problems confronting the navigation dredging community. DOTS supports knowledge-based exchange of information throughout the interagency coordination process. Short-term work efforts to address generic Corps-wide technical problems encountered during maintenance of navigable waterways and infrastructure are major features of the DOTS Program. Technology transfer and demonstration of new techniques with potentially high returns on investment for management of Corps navigation maintenance projects are critical DOTS functions. By disseminating technically sound knowledge to field offices constrained by staff reductions and limited resources, the DOTS Program will continue to perform a critical technology transfer role in support of all O&M navigation projects. DOTS fosters productive, collaborative relationships with other federal and state agencies with missions relevant to navigation, particularly the US Environmental Protection Agency, and academic institutions, including the National Academy of Sciences.

PROPOSED ACTIVITIES FOR FY 2012:

- Expanded support for technical responses to field offices encountering problematic navigation issues. Whereas DOTS has historically concentrated on dredging and dredged material placement, the program's resources have been increasingly requested by personnel engaged in many other navigation-relevant activities (e.g., safe inland navigation lock operations, coastal inlet sedimentation issues, navigation structure performance, etc.). Increasing demand for rapid technical advice continues to be constrained by available funding.
- Critical support of ongoing efforts to resolve expensive, controversial conflicts between navigation O&M activities and protection of Threatened and Endangered Species through effective interagency coordination and collaboration with credible, independent third parties. One example is sponsoring the American Bird Conservancy to mediate and determine most effective recovery strategies for the endangered Interior Least Tern. Separately, ongoing engagement with multiple agencies seeking improved management practices for protection of endangered sea turtles is yielding progress toward more flexible environmental windows and potentially substantial cost savings across multiple NAD, SAD, MVD, and SWD Districts. These efforts, which have high probabilities of long-term substantive cost savings to the O&M budget require expanded short-term investments. Likewise, emerging issues related to

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protection of species proposed for federal listing (e.g., Atlantic sturgeon) can best be addressed through proactive exchange of knowledge pertaining to dredging and other navigation O&M processes in order that informed decisions be integrated into mandated protection measures upon listing.

- DOTS continues to support standardized reporting to the US Fish and Wildlife Service of Endangered Species Act compliance costs affecting O&M navigation projects as mandated by Congress. Prior to implementation of the DOTS-sponsored system, costs were estimated using arbitrary methods.
- Continued coordination with the Marine Board of the National Academy of Sciences with regard to navigation-relevant issues.
- Expanded support of mandated reporting to other Federal and international agencies with regard to dredged material placement in oceanic waters and costs of compliance for navigation projects with the Endangered Species Act. DOTS has developed standardized, faster, accessible, and accurate web-based tools for satisfying these requirements. Ongoing efforts will refine these tools for expedited use by field office users.
- Expanded investment in training of Corps and regulatory agency staff in dredging and other navigation mission processes. Existing training materials that have become outdated will be revised. New opportunities for regional training exercises will be sought. Training of newly recruited Corps and regulatory agency personnel has significant payback in the form of conflict avoidance and project execution delays stemming from unfamiliarity with basic dredging processes and misperceptions. Education of personnel engaged in navigation project planning, implementation, operation, and maintenance has been identified as a critical limitation as demographics in the regulatory agencies change through pulses of retirement and recruitment.
- Continued expansion of web-based tools and access to existing knowledge pertaining to the broad navigation mission. This activity will be given a major emphasis in order to keep pace with rapid advances in information sharing technologies and growing dependence on internet resources.
- Continued optimization of the National dredging program requires improved tools, methodologies, and practices to formulate the most efficient and nationally coordinated program. This new effort (\$800k) creates a dredging center to bring researchers, Districts, and industry together and creates new capabilities, tools, and methodologies to support national planning and implementation.

ACCOMPLISHMENTS IN PRIOR YEARS:

- Emphasis was placed on effective transfer of technology developed by the Corps and others engaged in maintenance and management of navigation structures and navigable waterways. Typical technology transfer topics include: management of Confined Disposal Facilities; management of contaminated dredged material; application of innovative risk-based technologies to assess contaminated dredged material; maintenance of coastal inlets and adjacent shorelines; shoreline stabilization and river training methodologies; assessment and management protocols for beneficial uses of dredged material; assessment of water quality issues based on historical compliance monitoring data; proactive analyses of dredge entrainment data for take of species associated with emerging concerns (e.g., green and Atlantic sturgeon); channel realignments; protection of threatened or endangered species; equipment selection; operational measures for protection of Threatened and Endangered Species; rational application of environmental windows and alternative best management practices; lock and dam maintenance needs; channel and harbor maintenance activities; ship simulation applications; and numerical modeling methods for resolution of engineering and environmental issues.
- One example of timely responses facilitated by the DOTS Program involved a multi-District, multi-laboratory response following the Deep Horizon Gulf Oil Spill. As movement of oil approached navigation channels it was realized that ongoing dredging activities could be shut down and the occurrence of oil in dredged material could have major consequences for handling of that material, including disposition as suitable material for beneficial use. Guidance did not exist on appropriate tests and contingencies in the event that oil was present. Guidance developed by the DOTS-sponsored team will provide valuable lessons learned for future spill events.
- A trend for increasing need for technical responses, evidenced by consistent growth in requests submitted by field offices on an annual basis, coincides with expansion of the DOTS mission to cover all navigation-related issues in addition to dredging and dredged material disposal.

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- Personnel turnover due to retirement and attrition within the Corps and other regulatory agencies has created a growing demand for training in diverse technological areas. DOTS-sponsored training of Corps staff, personnel with regulatory authority over Corps navigation maintenance activities, and other stakeholders will convey the latest findings on environmental and engineering techniques associated with maintaining navigable waterways. Training topics include dredging and dredged material disposal; coastal and inland channel maintenance needs; water quality and related aquatic environmental issues; new and emerging techniques for accurate determination of compliance with environmental protection statutes regarding management of dredged material and other features of navigation projects; development and preparation of manuals jointly with the EPA that implement the inland and ocean disposal programs; and short-term work efforts to address generic Corps-wide technical dredging and dredged material management problems related to navigation projects.
- DOTS will continue to fill a long-standing void with respect to outreach, providing a broad spectrum of educational materials related to the Corps' navigation mission. Relying on internet resources, this activity has rapidly become an extremely effective means of conveying comprehensive, accurate information to a broad audience, including students, educators, and the general public as well as professionals.

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Earthquake Hazards Reduction Program

SUMMARIZED FINANCIAL DATA:

President's Budget for FY 2012	270,000
Allocation Requested for FY 2012	270,000
Change in FY 2012 from FY 2011	0

AUTHORIZATION: This program is being conducted under the authority of PL 101-614, November 1990, National Earthquake Hazards Reduction Program Re-authorization Act and individual project authorizations for maintaining safety of personnel and emergency response capability.

JUSTIFICATION: The purpose of this program is to respond to the requirements of PL 101-614, National Earthquake Hazards Reduction Program (NEHRP) and Executive Order (EO) 12941, Seismic Safety of Existing Federal Buildings. The EO directs all Federal departments and agencies to develop an inventory of their owned and leased buildings and an estimate of the cost of mitigating unacceptable seismic risks in their buildings. The objective of PL 101-614 is to establish and initiate for buildings and lifelines a systematic approach to reducing loss of life, injuries, and economic costs resulting from earthquakes in the United States. Lifelines are defined as public works and utility systems.

PROPOSED ACTIVITIES FOR FY 2012: Continue development of mitigation program options to meet the executive order requirements and the legal opinion concerns, refine the develop technical seismic building evaluation criteria, refine the develop programmatic seismic criteria, refine the develop guidance or the seismic evaluation and risk mitigation of lifeline facilities, and development of building and powerhouse mitigation plan options, improve information transfer by use of videoconference calls and development of a seismic web site, and develop reports on selected study items. USACE has a legal opinion that indicates that once we have identified seismically vulnerable structures we are legally responsible to develop a plan to mitigate these vulnerabilities. The requested funds will be used to improve seismic information and requirement transfer, adjust the agency specific mitigation plan (if necessary), provide the tools for implementation of the program that would lead to supportable, defensible mitigation decisions, provide assistance to districts in the development of mitigation concepts and designs, provide support to HQUSACE in oversight and management of the mitigation program, provide technical support to HQUSACE, maintain technical seismic expertise, identify potential cost savings areas for study, develop guidance for additional lifeline systems not previously covered in commercially available standards or existing USACE guidance, develop guidance for operations personnel, develop a mitigation plan for the USACE lifelines, update and maintain database. The development and updating of guidance for the seismic evaluation and risk mitigation of lifeline facilities will continue as well.

ACCOMPLISHMENTS IN PRIOR YEARS: Over 12,000 owned buildings and powerhouses were inventoried and data collected, seismic screenings of over 700 buildings in all seismic regions, seismic evaluations were performed on over 200 buildings and powerhouses in various geographic regions primarily in high and moderate seismic regions, development of reports for FEMA to be forwarded to Congress on both buildings and powerhouses, development of seismic evaluation guidance for buildings and lifelines: building evaluation criteria, powerhouse evaluation criteria, lifeline criteria for intake towers, navigation locks, and powerhouses, two seismic evaluation seminars for district personnel, technical support to the districts in accomplishing the evaluations, over 30 rehabilitation case studies including seismic mitigation cost estimates (rehabilitation, replacement, or demolition) for buildings, over 25 rehabilitation cost estimate studies for structural or nonstructural powerhouse deficiencies, inventory of USACE owned buildings including powerhouse superstructures, inventory of USACE leased buildings with estimated populations and recommendations for leasing procedures, development of mitigation program options to meet the executive order requirements and the legal opinion concerns, develop technical seismic building evaluation criteria, develop programmatic seismic criteria, develop guidance for the seismic evaluation and risk mitigation of lifeline facilities, develop associated costs studies to include asbestos and lead based paint costs

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associated with rehabilitation, adapt the building and powerhouse inventory database to an Oracle system compatible with the Operations and Maintenance Business Information Link (OMBIL) program and revise building report to reflect the new criteria.

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Facility Protection - CISP

SUMMARIZED FINANCIAL DATA:

President's Budget for FY 2011	\$ 6,500,000
Allocation Requested for FY 2012	\$ 6,500,000
Change in FY 2012 from FY 2011	(\$0)

AUTHORIZATION: The Energy and Water Development Appropriations Act, 2002 (PL 107-66), Consolidated Appropriations Resolution 2003 (PL 108-7), Energy and Water Development Appropriations Act 2004 (PL 108-137), Consolidated Appropriations Resolution 2005 (PL 108-447), Energy and Water Development Appropriations Act 2006 (PL 109-103), and the President's Budget proposes similar authorization for FY 2007.

JUSTIFICATION: The Facility Protection – CISP supports the implementation of the U.S. Army Corps of Engineers (USACE) Critical Infrastructure Protection & Resilience (CIPR) Program, whose goal is to achieve a more secure and more resilient civil works critical infrastructure by enhancing its protection in order to prevent, deter, or mitigate the effects of manmade incidents and improve preparedness, response, and rapid recovery in the event of an attack, natural disaster, and other emergencies. The CIPR program supports National policy drivers under the National Infrastructure Protection Plan and the National Response Framework, and it is directly aligned with the Dams Sector-Specific Plan. The objectives of the CIPR program include assessing and prioritizing Corps civil works critical infrastructure by implementing a portfolio-wide risk assessment framework. The CIPR program focus is not necessarily facility specific, as it addresses portfolio-wide resilience-enhancing efforts. This holistic, integrated framework is facilitated through the implementation of system-wide and asset-specific integrated actions for enhanced protection and resilience at USACE critical infrastructure facilities. The goals of the CIPR program are to develop, implement and sustain an integrated risk-based assessment & management framework for Corps civil works critical infrastructure; to assess and prioritize Corps civil works critical infrastructure by developing and implementing a portfolio-wide risk assessment approach; and, to improve the risk profile of Corps civil works critical infrastructure. These goals will be attained by developing solutions, methodologies, and tools to address key vulnerabilities to manmade incidents, implementing effective programs to minimize consequences, improving the response and recovery capabilities using an all-hazards approach, and prioritizing life-cycle investments.

PROPOSED ACTIVITIES FOR FY 2012:

- Conduct 2012 implementation of Consequence-Based Top Screening (CTS) methodology for systematic screening and consistent prioritization of high-consequence (critical) dams and navigation locks.
- Implement regional resilience efforts supporting the development of integrated regional strategies to improve disaster preparedness and recovery of critical infrastructure and surrounding region.
- Develop consequence analysis studies and system-based interdependency assessments at Corps critical dams projects.
- Develop advanced modeling and simulation studies for critical infrastructure.
- Develop and implement a security conditional risk assessment methodology (Common Risk Model for Dams) for portfolio prioritization of Corps critical infrastructure and risk mitigation to manmade threats.

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ACCOMPLISHMENTS IN FY 2011:

- Developed a benchmark pilot for implementing a conditional risk assessment methodology (Common Risk Model for Dams) at a selected number of Corps critical projects.
- Conducted the 2010 Dams Sector Exercise Series – Green River Valley (DSES-10) supporting the development of an integrated regional strategy to improve disaster preparedness and resilience in collaboration with Green River Valley public/private stakeholders.
- Implemented a Consequence-Based Top Screening (CTS) methodology for dams at USACE critical projects. The CTS supports identification of those facilities that could reach the most severe consequences at the national level (critical impacts to the Nation's public health and safety, economic, and/or national security), while it also and prioritization efforts at the portfolio level.
- Developed targeted summaries (Comprehensive Facility Reports) of key information on selected dams and locks of regional or national significance to facilitate quick regional impact assessment reporting for all hazards conditions.
- Collaborated in pilot efforts aimed evaluating simplified blast damage estimation tools as part of overall risk assessment process at a selected number of dams in collaboration with other Dams Sector partners.
- Continued improvement of predictive damage assessment tools of water-backed embankment dams from explosive loading using data from full-scale and reduce-scale experiments.
- Conducted small- and large-scale experiments of blast mitigation alternatives on embankment dams to evaluate their response under crest- and water-side attack scenarios.
- Continued interagency collaboration with the DHS Dams Sector-Specific Agency and other Dams Sector stakeholders.
- Supported additional requirements associated with surge in security measures at USACE critical projects due to increased threat levels.
- Coordinated with DHS the implementation of the Enhanced Critical Infrastructure Protection program at USACE projects.

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FERC Hydropower Coordination

SUMMARIZED FINANCIAL DATA:

President's Budget for FY 2011	\$ 3,000,000
Budget for FY 2012	\$ 3,000,000
Change in FY 2012 from FY 2011	\$ 0

BACKGROUND: The Corps Engineering Regulation 1110-2-1454 states in part, "When a non-Federal hydropower plant is licensed by the Federal Energy Regulatory Commission (FERC) for construction at a Corps project, the licensee will be required to reimburse the Corps directly for all reasonable costs associated with the Corps review and approval of the final design, construction, plans, specifications, and inspection of the construction." As a consequence of this guidance, the Corps has been collecting and expending funds for many years for these activities from FERC licensees who have built, owned and operated hydropower facilities at Corps projects. However, in June 2006, the Office of Counsel, HQUSACE, advised that the Federal Power Act, as amended, does not provide the necessary authority for the Corps to expend funds received directly from FERC licensees. The Office of Counsel went on to say that the Corps must instead, deposit the funds in the Treasury's Miscellaneous Receipts account and must rely on annual appropriations to carry out its responsibilities under the Federal Power Act.

JUSTIFICATION: The Office of Counsel, HQUSACE, determination in June 2006, that the Corps did not have the legal authority to expend funds received directly from FERC licensees, has resulted in the Corps relying on the annual budget process and annual Congressional appropriations for the funds necessary to carry out its responsibilities under the Federal Power Act.

PROPOSED ACTIVITY FOR FY 2012: FY2012 funding will continue coordination activities with FERC permit holders and licensees in Corps districts. These coordination activities will provide support to FERC permit holders and licensees to ensure that all Corps statutory requirements are met and that there will be no infringement upon the Corps' authorized purposes by the proposed non-Federal development.

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Fish & Wildlife Operating Fish Hatchery Reimbursement (New)

SUMMARIZED FINANCIAL DATA:

President's Budget for FY 2011	\$3,800,000
Allocation Requested for FY 2012	\$3,800,000
Change of FY 2012 from FY 2011	\$0

AUTHORIZATION: This program is a line item added by House Report 111-278, dated September 30, 2009.

JUSTIFICATION: The U.S. Fish and Wildlife Service (USFWS) was authorized by Congress in 2008 to seek reimbursement from the Corps of Engineers for O&M costs incurred by National Fish Hatchery System for "de facto" mitigation of certain Corps dam projects which typically predated the National Environmental Policy Act. This resulted in a specific line item authorization in the Corps FY10 budget (see above).

PROPOSED ACTIVITIES FOR FY 2012:

The 2012 funding will be utilized to reimburse USFWS for National Fish Hatchery (NFH) O&M related to "de facto" mitigation of Corps dams identified in a MOU (date to be determined).

ACCOMPLISHMENTS IN PRIOR YEARS:

In FY10 an initial amount of \$4,467,000 was added to the Stewardship budget as a new Remaining Item.

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Great Lakes Tributary Model

SUMMARIZED FINANCIAL DATA:

President's Budget for FY 2011	1,200,000
Budget Request for FY 2012	1,080,000
Increase of FY 2011 from FY 2011	-192,000

AUTHORIZATION: Section 516(e), Water Resources Development Act (WRDA) of 1996, as amended by Section 334, WRDA of 2000 and Section 5013, WRDA of 2007.

JUSTIFICATION: Under this authority, the Corps is developing sediment transport models for tributaries to the Great Lakes that discharge to Federal navigation channels or Areas of Concern (AOCs). These models and related tools are being developed to assist state and local resource agencies evaluating alternatives for soil conservation and nonpoint source pollution prevention in the tributary watersheds. The ultimate goal is to provide tools that support state and local measures to reduce the loading of sediments and pollutants to navigation channels and AOCs, and thereby reduce the costs for navigation maintenance and sediment remediation. This program supports the objectives of the Administration's Great Lakes Restoration Initiative as well as the Strategy developed by the Great Lakes Regional Collaboration under Executive Order 13340 and the recommendations of the Interagency Ocean Policy Task Force.

PROPOSED ACTIVITIES FOR FY 2012: FY 2012 funds will be used to continue or complete development of models at the following tributaries (Calumet River, IL; Keshequa Creek, NY; Tiffin River, OH; Knife River, MN; Clear Creek, NY; Knowlton/Coffee/Miller Creeks, MN; River Raisin, MI; Fox River, WI) and continue development of Internet-based modeling tools that may be utilized by local agencies and stakeholders for sub-watershed evaluations. Districts will provide technical support and training to state and local partners that are using models developed under this program to reduce loadings of sediments and contaminants to Great Lakes tributaries, thereby reducing future dredging requirements at Federal navigation channels and promoting the restoration of beneficial uses at Great Lakes Areas of Concern.

ACCOMPLISHMENTS IN PRIOR YEARS: Models and related watershed planning tools have been completed for over 20 tributaries (Grand Calumet River, IN; Trail Creek, IN; Burns Waterway, IN; Battle Creek, MI; Saginaw River, MI; St. Joseph River, MI; Clinton River, MI; Grand River, MI; Nemadji River, MN/WI; Buffalo River, NY; Cayuga Creek, NY; Eighteenmile Creek, NY; Genesee River, NY; Niagara River, NY; Cattaraugus Creek, NY; Grand River, OH; Upper Auglaize River, OH; Black River, OH; Cuyahoga River, OH; Mill and Cascade Creeks, PA; Menomonee River, WI). Models are being utilized by state and local governments to support decision making on: agricultural and forestry practices; development of Total Maximum Daily Loads (TMDLs) for nonpoint source pollution control; prioritization of conservation practices; management of urban development, and; design of stream restoration projects. This program has enhanced the capabilities of state and local governments to manage programs that reduce the loading of sediments and levels of contaminants in tributaries to the Great Lakes.

Global Change Sustainability (Continuing)

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost of Continuing Program	\$10,000,000
Appropriation for FY 2011	10,000,000
Budget Request for FY 2012	10,000,000

AUTHORIZATION: Various authorities including Section 216 of the River and Harbor and Flood Control Act of 1970, Section 731 of the Water Resources Development Act of 1986, and specific project and purpose authorizations.

JUSTIFICATION: USACE has a requirement to successfully perform its missions, operations, programs, and projects in spite of an increasingly dynamic environment. Dynamic global changes such as changes in demographics, land use and land cover, socioeconomic and political conditions, and subsidence can adversely impact USACE missions, programs, projects and operations. Our project operations must adapt to changing conditions in a sustainable manner that emphasizes life safety and safeguards the Federal investment in water resources infrastructure. Providing sustainable and effective delivery of water resources services across the Civil Works mission areas while meeting the sustainability and greenhouse gas reduction requirements of Executive Order 13514 requires USACE to adopt and implement a comprehensive strategy.

The Global Change Sustainability (GCS) program enhances the sustainability and resilience of our built infrastructure and the natural environment by providing a proactive, nationally consistent, and regionally sensitive framework and program of actions that will reduce the impacts and costs of global change effects. It is safer and more cost-effective to assess, plan, and prioritize now for adaptation to global change effects within an integrated water resources management context, rather than simply reacting on an ad hoc basis to future impacts as they emerge. Planning and managing our portfolio of water resources projects to be sustainable, while accounting for uncertainty, requires a dynamic systems approach that incorporates new knowledge. The GCS helps to assess the interactions across the impacts of global changes in various sectors and regions, identify sources of uncertainty, and evaluate the potential impacts to the broad spectrum of existing water resources and marine transportation systems and ecosystems. In addition, sustaining the increased level of intergovernmental collaboration on global change science, adaptation engineering, and policy is a key aspect of the program. USACE is committed to working closely with other Federal agencies to develop and implement risk-based planning and proactive adaptation and mitigation management approaches based on the best available and actionable science that recognize the dynamic and complex nature of the challenges posed by global change.

PROPOSED FY 2012 ACTIVITIES:

- Continue updating drought contingency plans at USACE reservoirs to take into account current future projections according to strategic and priority needs.
- Continue review of USACE projects with respect to sea-level change in all phases of their life cycles and build on database systems to support reporting and access to results.
- Begin development of policies and methods supporting consistent management strategies for dealing with global changes in coastal zones.
- Continue updating reservoir sedimentation studies according to strategic and priority needs.
- Analyze the vulnerability of ecosystems and ecosystem processes, ecosystem services, habitats, and biological diversity to global change effects and develop strategies and methods to increase resilience and sustainability.
- Develop and initiate a strategy and policy to foster efficient and informative sharing inside USACE and to other agencies of the technical information needed to effectively address resiliency of the built infrastructure and the sustainability of the natural environment.
- Continue to pilot and demonstrate practical revisions to water control manuals, project operations, and ecosystem and natural resources management that will enhance the resilience of projects to climate change and other global change effects.

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- Evaluate potential adaptation alternatives within the collaborative framework to reorient our perspectives to take advantage of flexibility where it exists, and begin to implement the innovative strategy to improve our existing capacity in priority areas.
- Continue Sustainable Rivers Program demonstration projects to employ concepts of ecological services and ecosystem requirements, using the results to refine and augment current evaluation methods and environmental values/benefits.
- Continue to improve automation and visualization of project-level greenhouse gas emissions inventory methods to support reporting requirements, and integrate conservation, mitigation, and adaptation in the context of USACE projects.
- Evaluate carbon sequestration potential of USACE projects and systems according to methods developed, and develop and implement method to assess potential for use of renewable and sustainable energy sources.
- Continue to involve USACE staff at all levels and all regions in developing methods and policies to build knowledge and capacity on emerging global change sustainability guidance and approaches for sustainable water resources.

ACCOMPLISHMENTS IN PRIOR YEARS:

- Developed a strategy to update drought contingency plans at USACE reservoirs, provided methods, and prioritized required updates.
- Building on the Comprehensive Evaluation of Project Datums, developed, prioritized and implemented a strategy for a comprehensive review of USACE projects with respect to sea-level change in all phases of their life cycles, beginning with the highest-priority projects.
- Collaborated with Federal, state, and local agencies to develop consistent management approaches to deal with changes in coastal zones.
- Based on the results of the reservoir sedimentation adaptation pilot study, developed a strategy to update reservoir sedimentation information, prioritized needs, and began updating reservoir sedimentation studies according to that priority.
- Developed a framework to analyze the vulnerability of ecosystems and ecosystem processes, ecosystem services, habitats, and biological diversity to global change effects using analysis of plausible future scenarios of change.
- Supported development of the Council on Environmental Quality (CEQ) National Strategy for Climate Change Adaptation to develop, refine, and implement nationally consistent approaches for adapting to global change effects based on an integrated water resource management (IWRM) framework.
- Piloted and demonstrated practical revisions to water control manuals, project operations, and ecosystem and natural resources management that will enhance the resilience of projects to climate change and other global change effects.
- Working with other agencies and stakeholders, identified opportunities for collaborative efforts to build resilience to global changes effects and develop an innovative strategy to improve our existing capacity in priority areas.
- Developed program to conduct Sustainable Rivers Program demonstration projects to employ concepts of ecological services and ecosystem requirements and prioritized pilots in partnership with The Nature Conservancy (TNC) and other stakeholders, and including USACE-TNC collaboration assessments.
- Automated agency-level greenhouse gas emissions inventory methods to support reporting requirements, and integrate conservation, mitigation, and adaptation in the context of USACE projects.
- Developed a strategy to evaluate carbon sequestration potential of USACE projects and systems that is aligned and coordinated with national efforts.
- Provided training and capacity building across USACE on emerging adaptation and mitigation guidance and approaches for sustainable water resources.

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Inland Waterway Navigation Charts

SUMMARIZED FINANCIAL DATA:

President's Budget for FY 2011	\$3,800,000
Allocation Requested for FY 2012	\$3,420,000
Increase in FY 2012 from FY 2011	\$ -380,000

AUTHORIZATION: PL 85-480, approved 2 July 1958, authorizes the Commander, US Army Corps of Engineers (Corps) to publish information pamphlets, maps, brochures, and other material on river and harbor, flood control, and other civil works activities, including related public park and recreation facilities that may be of value to the general public.

JUSTIFICATION: This effort provides Corps' Electronic Navigational Chart (ENC) data for all inland waterways and other federal navigation channels maintained by the Corps to be used by commercial Electronic Chart Systems (ECS), which, when combined with the existing Differential Global Positioning System (DGPS), will improve the safety and efficiency of marine navigation in both inland and coastal waterways of the United States. On inland waterways, the Corps will collect more accurate survey and mapping data than is currently on its paper charts, and produce Inland Electronic Navigation Charts (IENCs) in accordance with navigation users and ECS vendors. When combined in the commercial ECS, the technology will greatly improve the safety and efficiency of navigation. This will allow safe navigation through bridge openings during fog and other bad weather conditions as well as during heavy traffic situations, and provide an accurate display for other systems such as radar and Automatic Identification Systems. The Corps will use the S-57 international data format, the electronic data transfer standard prepared by the International Hydrographic Organization committee. The S-57 format is consistent with electronic chart products produced by the National Oceanic and Atmospheric Administration (NOAA), and the chart products produced by the two agencies will be coordinated for compatibility in adjoining areas. The Corps will also coordinate with the U.S. Coast Guard for aids to navigation information and collaboration on rules for chart carriage by waterway users. In coastal and Great Lakes areas, the Corps will produce standardized channel condition chart products that will provide consistent and reliable information to NOAA for chart updates, in accordance with Water Resources Development Act of 2000, Section 558. Similar channel chart products will be provided to navigation users, and these coastal and Great Lakes channel condition chart products will also follow the S-57 format. Such ENC development and publication activities are in accordance with National Transportation Safety Board recommendations to the Corps, and subsequent commitments made by the Chief of Engineers.

PROPOSED ACTIVITIES FOR FY 2012: Update features for all existing IENCs. Convert existing IENCs from S-57 to the Inland ENC standard (over 7,400 miles). Continue cooperative charting program with U.S. Power Squadron; completion of channel framework and channel condition reports procedure for NOAA charts, investigate addition of new features and technology.

ACCOMPLISHMENTS IN FY 2010/2011: Updated features for the Allegheny, Arkansas, Atchafalaya, Black Warrior-Tombigbee, Cumberland, Green, Illinois, Kanawha, Mississippi, Missouri, Mobile, Monongahela, Ohio, Red and Tennessee Rivers – over 6,200 miles. Completed development and conversion to international IENC standard of chart coverage for the: Missouri – 147 miles; Ouachita – 351 miles; Kaskaskia – 36 miles. Continued chart production will include Alabama – 304 miles and White 300 miles and will be produced to the Inland ENC standard. Completed channel framework of coastal and Great Lakes areas; established standard for paper charts; continued data reporting and compilation process with U.S. Power Squadron, showcased chart development and production at several national and international meetings.

PROGRAM NAME: INSPECTION OF COMPLETED FEDERAL FLOOD CONTROL PROJECTS

AUTHORIZATION: Section 221 of the Flood Control Act of 1970, as amended (84 Stat. 1831, 42 U.S.C. 1962d-5b), requires that a written agreement be executed between the Secretary of the Army and the non-federal sponsor to identify the "items of local cooperation" for US Army Corps of Engineers (Corps) projects, including operation and maintenance requirements. It also authorizes the Corps to "undertake performance of those items of cooperation necessary to the functioning of the project for its purposes, if the Corps has first notified the non-federal interest of its failure to perform the terms of its agreement and has given such interest a reasonable time after such notification to so perform." To determine whether the non-federal sponsor is performing as it has agreed, the Corps undertakes inspections of completed projects. Engineer Regulation 500-1-1, Emergency Employment of Army and Other Resources, Civil Emergency Management Program, Chapter 5, Rehabilitation and Inspection Program in conjunction with related policy guidance memoranda for the Corps Levee Safety Program establishes the policy for the inspection of federal flood risk management projects which have non-federal sponsors responsible for operation, maintenance, repair, replacement, and rehabilitation as specified in formal agreements based on Section 221 of the Flood Control Act of 1970 or other legislation.

LOCATION AND DESCRIPTION: The Corps civil works program includes approximately 11,750 miles of federally authorized levees and floodwall systems, 383 reservoirs, and more than 90 storm damage reduction projects along 240 miles of the nation's 2,700 miles of shoreline. Upon completion, and with the exception of reservoirs, most of the infrastructure built under this program is transferred to the sponsoring cities, towns, and special use districts to operate and maintain the projects. Many of these structures are adjacent to highly urbanized areas, and all of them require continued maintenance (either by the federal government or non-federal interests) after construction in order to ensure the project will function as intended to prevent loss of life and catastrophic damages; as well as preserve the value of the federal investment.

BUDGET AMOUNT FOR FY2011: \$ 1.78 (millions)

BUDGET FOR FY2012: \$ 26,780 (millions)

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

Since reservoirs are typically inspected under each individual state's dam safety program, the priority of the ICW program in recent years has been levees because of public safety aspects. In 2006, the Corps created its Levee Safety Program with the mission to assess the integrity and viability of levees and recommend courses of action to make sure that levee systems do not present unacceptable risks to the public, property and environment. The Inspection of Completed Works Program is now guided by the Levee Safety Program. With this in mind, the basic objectives of the Corps Levee Safety Program are (1) to develop balanced and informed assessments of this nation's levees; (2) to evaluate, prioritize and justify levee safety decisions, and (3) to make recommendations to improve public safety associated with levee systems. One of the main activities includes inspections of federally authorized projects operated and maintained by a non-federal sponsor. The purpose of the inspections is to determine if the levee system will perform as expected; identify deficiencies or areas which need monitoring or immediate repair; identify any changes over time; and collect information in order to be able to make informed decisions about future actions. Other activities include updating information in the National Levee Database; screening levees to rank them in order of risk; conducting pre-storm inspections of federally authorized hurricane shore protection systems; conducting pre-inspection preparation and post inspection reporting and notification requirements; coordinating Levee Safety Program efforts with public sponsors or stakeholders; and reviewing sponsor proposed alterations, such as Section 408 proposals.

Coordination between USACE and other federal, state, and local agencies is essential for proper accomplishment of this program. In addition to satisfying Corps requirements, the improved inspection results will be made available on the National Levee Database and will be of great value to local, state, and other federal agencies tasked with the development and implementation of state and local Levee Safety Programs.

ACCOMPLISHMENTS IN PRIOR YEARS: Implementation of improved, standardized national inspection criteria and standards for inspection ratings of both federal and non-federal flood damage reduction projects have been established to ensure nationally consistent evaluation and assessment of operations and maintenance activities performed by local project sponsors. Development of a more robust technical inspection process and risk assessment methodology will provide improved assessment of levee performance, deficiencies and improvements necessary to insure that levee systems will perform as intended. Conducted intensified notification and coordination with project sponsors for all federal projects that have received an unacceptable rating during the last inspection to insure that sponsors address and correct deficiencies. Updated vegetation management policies for levees.

PROPOSED ACTIVITIES FOR FY2012: Prior to FY 2009, the Corps only conducted routine inspections on an annual basis to ensure that the levee was properly operated and maintained by the sponsor. Starting in FY 2009, in addition to the routine inspections, the Corps began conducting periodic inspections with \$90 million allocated from the American Recovery and Reinvestment Act of 2009. The periodic inspections are conducted at five year intervals, and are more detailed, comprehensive evaluations of the condition and safety of the levee systems. In addition, the Corps is applying a screening tool, which takes into account a number of factors, including inspection information and performance history, so that the levees can be ranked based on relative risk. With the \$90 million from the Recovery Act, the Corps will complete periodic inspections on 822 out of 1495 federally authorized levee systems by the end of FY 2012. The FY 2012 budget includes \$25 million to complete periodic inspections on an additional 125 federally authorized levees and to continue levee screenings.

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Monitoring Completed Navigation Projects (MCNP)

SUMMARIZED FINANCIAL DATA:

President's Budget for FY 2011	\$ 1,800,000
Allocation Requested for FY 2012	\$ 3,920,000
Change in FY 2012 over FY 2011	\$ 2,120,000

AUTHORIZATION: Authorization for the Corps of Engineers Engineer Research and Development Center (ERDC) to conduct R&D is codified in 10 U.S.C. 2358 ("The Secretary of Defense or the Secretary of a military department may engage in basic research, applied research, advanced research, and development projects that are necessary to the responsibilities of such Secretary's department in the filed of research and development.")

JUSTIFICATION: These monitoring efforts, governed by **Engineer Regulation 1110-2-8151**, are essential for providing data for efficient and effective management of critically important Federal shallow- and deep-draft navigation projects for both national economic and military sealift security reasons. The Corps operates and maintains more than 800 navigation projects encompassing more than 25,000 miles of waterways. The Corps requires a national program to identify the best navigation project practices, and to use them to improve all other navigation projects' performance. Optimizing Civil Works project's performance requires that they be monitored upon completion, evaluated against preconstruction and present needs, and lessons learned translated into proactive management guidance for Corps Districts. Information gained from the MCNP program, including changes in sediment transport, water levels, currents, waves, flushing, river flows, structure deterioration, and other coastal and river hydraulic phenomena with associated environmental impacts, will be used to verify design expectations, determine benefits, and identify operational and maintenance efficiencies. Information collected will significantly improve projects' performance, and optimize opportunities for environmental enhancement. Information of a national basis documents successful designs, disseminates lessons learned on projects with problems, and provides upgraded field guidance for solutions that will reduce life-cycle costs on a national scale.

FY12 program increases are to include development of a real time monitoring capability of the navigation system through river information services (\$1M), to improve inland navigation reliability and address the Administration High Priority Performance Goal for USACE Navigation, which calls for decreasing unscheduled navigation lock closures on the inland waterway. Additionally, the increase provides for research and development specific to navigation structures (\$1.2M). To link the knowledge gained through navigation project monitoring with emerging technology, materials, and monitoring tools to reduce unscheduled repairs and increase system efficiency and reliability. No other programs in the USACE or Federal sector address these critical requirements.

Both shallow- and deep-draft navigation projects located in ports, harbors, rivers, reservoirs, lakes, estuaries, and in the coastal zone are included in this program. Projects that provide maximum cost savings are identified, and those that best address high-priority life-cycle O&M project cost savings are selected for monitoring and evaluation. Monitoring plans are developed jointly by Corps districts and the Engineer Research and Development Center.

Coordination between the Corps and other Federal, state, and local agencies is essential for proper accomplishment of this program. In addition to satisfying Corps' requirements, the data are made available through publications and electronic technology transfer, and will be of great value to local, State, and other Federal agencies with navigation management policies. Results are communicated immediately to other member agencies of the Marine Transportation System (MTS).

PROPOSED ACTIVITIES FOR FY 2012: All monitored projects were nominated by Corps Division and District offices for inclusion in this MCNP program.

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- **Great Lakes Armor Stone Deterioration: Burns Harbor, IN; Cleveland Harbor, OH; and Keweenaw Waterway, MI:** Will conduct two rounds of field inspections/monitoring of scaled-size test Index Stones at the three sites. Will continue processing, analyzing, and integrating field data from all sites into the Degradation and Heterogeneity Model (DHM), considering review comments from Districts. Will continue lab-scale testing for abrasion, freeze-thaw, and wet-dry for two more representative Index Stones (Indiana Limestone, and Cleveland Sandstone). Lab data will be correlated and integrated with empirical field data into DHM. Will continue to investigate innovative technologies (seismic and magnetic resonance imaging) for development of field sensors for selection of armor stone at the quarry.
- **Periodic Inspections:** Detailed monitoring of Crescent City, CA and St. Paul, AK breakwaters will be conducted utilizing the Hand-Held Inspection Tool (HHIT) and aircraft lidar. Previously monitored coastal structures will be re-examined to determine long term performance of jetties and breakwaters to their environments. Comparisons will be made to data collected since the inception of the MCNP program. Repairs and/or changes to the structures will be acquired from District personnel and incorporated into an updated “Coastal Structures Case Histories” technical report, and uploaded into Enterprise Coastal Inventory Database (ECID) for national availability. Historical information for the Periodic Inspections GIS database will continuously to be populated.
- **Montgomery Point Lock and Dam, AR:** Will analyze continuous measurement data of forces on navigation dam flap gate hinges. Will complete analysis of leakage data around and between the flap gates, and will complete analysis of total load data on flap gates. Will complete analysis of vessel tracking video and ADCP velocity data for hazardous current conditions. Will complete analysis of sediment deposition patterns upstream of dam, and scour hole growth downstream of lock to prevent undermining. Will prepare and publish final Technical Report regarding this unique flap gate navigation dam design.
- **Galveston Ship Channel, TX:** This final year of field measurements will test whether vessel speed and increased traffic since the navigation channel was deepened and widened have been significant in channel shoaling, and will determine how vessel turbulence mobilizes and transports fluid mud into the channel. Vessel-induced waves and currents will be incorporated into the numerical models. Effects of reducing vessel speed in certain areas of the channel, and/or during times when fluid mud forms in the estuary, will be explored. Comprehensive channel shoaling guidance for USACE-wide application will be updated to include these contributions in the Beta version of the Channel Shoaling Toolbox. Toolbox will be tested at other sites and evaluated by District.
- **Marmet Locks and Dam, WV:** Will continue to monitor barges approaching upper and lower lock entrances with time lapse video, and barges within the lock during emptying and filling for mooring line surge forces. Upper and lower lock approach channels will be surveyed and compared to previous surveys for hazardous entrance channel shoaling. Inspection of the Stoney Gate Valves will be performed and compared to previous inspections for cavitation. Installation of all data acquisition equipment will be completed. Tests as outlined in the Comprehensive Prototype Lock Evaluation Plan will be conducted.
- **Gulfport Ship Channel, MS:** The USACE ship-maneuvering simulator will assess controllability of ships in channel under specific conditions. Use of simulator will require appropriate mathematical models. Simulator will be calibrated by tow-tank results. Fluid mud rheological tests will establish baseline conditions for selecting mediums to conduct captive maneuvering tests on one or more design of ship hulls. Ghent University, Antwerp, Belgium, will provide support to plan, execute, and analyze tow-test results and ship models for integration into ship simulator. Data will be used to define nautical depth/bottom according to PIANC international definition. This will establish the paradigm for implementing a USACE nautical depth policy and navigable depth definition.
- **Navigation Dam Trunion Rods:** Non-destructive testing Instrumentation will be developed for data acquisition in monitoring the tension of trunion anchorage rods to determine that the tension does not exceed tensile properties of the rods. A prototype-size test specimen of a concrete and trunion rod assembly will

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be constructed at the USACE Concrete Laboratory for ascertaining base conditions of response to impressed electronic signals. Appropriate testing devices will be developed. Comparisons will then be made with analogous signal returns from structures in the field to determine degree of degradation, and replacement necessity.

- **Inland Navigation System:** The combined navigation projects on the inland waterway comprise a navigation system that will significantly benefit through improved efficiency, reliability and reduced time of unscheduled lock closures by monitoring the navigation system in real time to improve operations. River information services are common in Europe and proven to produce benefits to the users and operators of the navigation system. This effort will begin development of information services providing real time information about lock conditions, hydrodynamic and meteorological conditions, ice and debris, notice to mariners, and real time chart updates all targeted with providing the mariner with up to date information to decrease allisions, resulting damages and unscheduled lock closures.
- **Navigation Structures:** Through this program much has been learned and this effort will expand tech transfer through the Regional Navigation Design Team and improve the application, testing, and development of design guidance on emerging technologies, materials, and structure testing tools and equipment. No other program is available to test and adapt these new and potentially cost saving opportunities. To link the knowledge gained through navigation project monitoring with emerging technology, materials, and monitoring tools to reduce unscheduled repairs and increase system efficiency and reliability. No other programs in the USACE or Federal sector address these critical requirements.

ACCOMPLISHMENTS IN FY 2011: Two Technical Reports (TR) were published and disseminated to Corps Field Operating Activities, containing improved, updated, and enhanced design guidance. Seven technical papers were presented at respective directly-related peer conferences.

- **Kaumalapau Harbor, HI:** Published comprehensive final Technical Report including new findings related to 35-ton CORE-LOC settlement, armor movement, and breakage during settlement, with strength of units and environmental forcing events. These findings provide improved design guidance for new, and rehabilitation of damaged, structures using 1-layer CORE-LOC concrete armor units at other high wave energy locations. Study completed.
- **J. T. Meyers Locks and Dam, KY:** Published final Technical Report regarding innovative repair techniques to lock wall concrete and armor systems while providing minimal disruption to navigation operations. High-strength quick-setting concrete and anchor-embedded steel plates provided a permanent fix. These repair techniques will significantly enhance design guidance for rehabilitation of existing navigation lock wall damage nationwide. Study completed.
- **Great Lakes Armor Stone Deterioration Study at Burns Harbor, IN; Cleveland Harbor, OH; and Keweenaw Waterway, MI:** Conducted two rounds of field monitoring of deterioration of scaled-size test Index Stones at Cleveland and Keweenaw. Continued processing, analyzing, and integration of field data from all three sites into the Degradation and Heterogeneity Model (DHM). Continued lab-scale testing of abrasion, freeze-thaw, and wet-dry for two representative Index Stones (Wausau Granite, and Waterloo Quartzite). Initial lab results are being integrated with the empirical field data for DHM. Modeling software was evaluated by Buffalo, Chicago, and Detroit Districts. Continued to investigate innovative technology (seismic and magnetic resonance imaging) for development of field sensors to select armor stone at the quarry.
- **Periodic Inspections:** Completed development of Periodic Inspections (PI) GIS database designed to incorporate past PI data into a consolidated and concise format. Summary information was uploaded to the Enterprise Coastal Inventory Database (ECID). Field research was conducted at Honolulu District (POH) structures incorporating a new collection method technology, the HHIT (Hand-Held Inspection Tool). Comprehensive walking surveys and structural

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damage specific to a tsunami event were mapped using the HHIT. The HHIT is an expedient and accurate means of data collection and database incorporation. Structure lidar imagery and data were incorporated into GIS, replacing previous-used photogrammetric methods. Baseline lidar data were established for West Coast, Great Lakes, and some POH structures.

- **Montgomery Point Lock and Dam, AR:** This study is exceedingly important because similar unique flap gate designs are under consideration for Upper Mississippi and Ohio River lock modifications. Acquired continuous measurements of forces on navigation dam flap gate hinges. Analyzed leakage data around and between the flap gates, and continued analyzing total load data on flap gates. Analyzed vessel tracking video and ADCP velocity data for hazardous current conditions at the lock approaches. Analyzed sediment deposition patterns upstream of dam, and scour hole development downstream of lock which potentially could undermine the structure.
- **Galveston Ship Channel, TX:** Comprehensive measurements of waves, currents, sediment transport, salinity, and river flow were collected over a 4- month period in Houston-Galveston Ship Channel and Galveston Bay to evaluate processes causing increased channel shoaling after deepening and widening, and to develop mitigation alternatives to reduce the channel infilling rates. Guidance for estimating channel shoaling following deepening and widening was updated based on the measurements, numerical model calculations, and analyses of historic dredging and bathymetric change data. An Alpha version of a Channel Shoaling Toolbox was developed. Feasibility of positioning beneficial use areas to reduce shoaling in Galveston Bay was evaluated.
- **Marmet Locks and Dam, WV:** Continued to acquire and analyze through-the-sill intake and discharge flows to determine potential for drawing a tow towards upper miter gate while filling and emptying. Continued to monitor radial transitions in the culvert tunnels to ascertain concrete erosion rates under high current velocities. Forces on, and vibrations of, unique Stoney Gate valves continued to be monitored under various intake and discharge flow rates to evaluate suitability for installation at other locks on the Upper Mississippi and Ohio Rivers. Impact data from barge tows on new upper guide wall design were analyzed to determine durability and sustainability due to repeated impact loads on the wall. A Comprehensive Prototype Lock Evaluation Plan was developed.
- **Gulfport Ship Channel, MS:** New study, initiated in FY11. Surveying to determine bottom of navigation channels where fluid mud or fluff exists has always been challenging nationwide due to variability of survey results. Current practice uses dual-frequency echo sounders recording at 41 and 200 kHz. The 41 kHz results are provided to users, but accuracy depends on variability of interpretation. The 200 kHz soundings give more repeatable results but indicate a higher bottom depths thus requiring deeper dredging. Began standards development for determining extent of fluid mud in navigation channels using high-frequency surveys, and determination of density/steerage relationship linked to EU standards. This will establish a navigable depth definition for channels.
- **Navigation Dam Trunion Rods:** New study, initiated in FY11. Investigated a serious emerging problem at navigation dams around the nation, focusing on John T. Myers Locks and Dam on the Ohio River. Here, each tainter gate pivots from two trunions. There are 65 dam trunion anchorage rods per trunion. The rods are 1.25-in. diam, and 62 ft long. Each rod is pre-stressed to 100 ksi at original construction. Five of the J. T. Myers rods have broken. Evaluation of non-destructive testing techniques were initiated to ascertain present condition of remaining rods here and nationwide, and to develop repair techniques prior to breakage. Capability for making quantitative measurements of existing condition of trunion rods was evaluated, and determined to be feasible.

APPROPRIATION TITLE: Operation and Maintenance, General -- Fiscal Year 2012

PROGRAM NAME: NATIONAL (LEVEE) FLOOD INVENTORY

AUTHORIZATION: Section 221 of the Flood Control Act of 1970, as amended (84 Stat. 1831, 42 U.S.C. 1962d-5b) and other legislation. In addition, on November 8, 2007, the Water Resources Development Act (WRDA) of 2007 was enacted into law. Title IX of this WRDA, cited as the National Levee Safety Act of 2007 (the Act), involves development of recommendations for a national levee safety program, in addition to, inventory and inspection of levees. This legislation complements the existing authorities and appropriations the Corps of Engineers uses to implement the other aspects of the agency Levee Safety Program.

LOCATION AND DESCRIPTION: Immediately following Hurricane Katrina, the Corps launched a major effort to create a National Levee Database (NLD) and develop a methodology for performing technical risk assessments of existing levee infrastructure. This information is necessary to ensure flood/storm damage reduction projects perform well during flood and storm events and to improve state and local accountability for maintaining and repairing flood and storm risk reduction projects. The purpose of the risk assessments are to identify the possible failure modes associated with loss of life and economic risk of the individual project components for the purpose of facilitating prioritization of remedial actions and identifying residual risk.

BUDGET AMOUNT FOR FY2011: \$ 15,000,000

BUDGET FOR FY2012: \$ 21,000,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2012:

It is realized that levees are abundant and integral to economic development in many communities, including many highly urbanized areas, in the United States. Yet, the total number and location and condition of all the levees in the US are currently unknown and the public often have only a limited understanding of levees and the risks associated with them. USACE has specific authorities to inspect and assess only levees within one of its authorities which total about 14,600 miles nationwide. However, there have been estimates that there could actually be up to an additional 100,000 miles of levees nationwide. In 2005, levee failures caused the loss of 1,800 lives and economic damages that are estimated to be over \$200 billion dollars.

ACCOMPLISHMENTS IN PRIOR YEARS: In May 2006, the Corps began the process of building a living, dynamic database, called the National Levee Database (NLD), to house information relative to the status and safety of the nation's levee systems. The database includes all necessary attributes of levees/floodwalls relevant to design, construction, operations, maintenance, repair and inspections. The NLD also includes information from FEMA on levees within the National Flood Insurance Program and flood risk information from the FEMA HAZUS database. To date, 14,600 miles of levees within the Corps Levee Safety Program have been identified. The overall intent is to continually update the NLD with new information across all aspects of levee safety as this information is gathered and developed. In addition to the database, the Corps has developed an automated Levee Inspection System tool as part of the NLD. It is a Geographic Information Systems (GIS) / Global Positioning System (GPS) based inspection tool that incorporates the levee inspection checklist and links directly with the NLD.

The National Committee on Levee Safety (NCLS), established by Title IX of WRDA 2007, prepared a report for Congress with recommendations on a National Levee Safety Program entitled "A Report to Congress from the National Committee on Levee Safety – January 15, 2009". The report contains 20 recommendations for a National Levee Safety Program, which embraces three main concepts: (1) the need for leadership via a new National Levee Safety Commission; (2) the building of strong levee safety programs in and within all states; and (3) a foundation of well-aligned federal agency programs. The Committee reconvened in October 2009 and is working to further define the strategic implementation plan including supplementing supporting data on costs and benefits of a National Levee Safety Program, defining governance and strategic implementation, and researching federal alignment opportunities. In addition, the Committee conducted seven regional stakeholder meetings to further solicit feedback on the recommendations.

APPROPRIATION TITLE: Operation and Maintenance, General -- Fiscal Year 2012

PROPOSED ACTIVITIES FOR FY2012: In coordination with related current Corps Levee Safety Program activities, the NCLS will begin to 1) further define requirements for national levee standards that include engineering policies, procedures, standards, and criteria for a range of levee types and related facilities and features; 2) leverage efforts initiated by the Corps in the area of Tolerable Risk Guidelines, including fostering international partnerships, to outline how this concept could be applied to levees and levee safety decisions; 3) build upon the Corps' Levee Safety Action Classification process to develop a process to quickly identify and prioritize leveed areas with limited information. Additionally, proposed FY2012 activities include expanding the NLD to other federal agencies and all states. Efforts will include coordination with all states in the nation and other federal agencies to collect available information on levees not currently within the Corps program. This will include implementing an initial survey with all the states, in addition to, developing and providing technical materials, training, and assistance to facilitate the use of the NLD. Close coordination and collaboration of policies with FEMA on the database and their new RiskMAP program will also continue.

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National (Multiple Project) Natural Resources Management Activities

SUMMARIZED FINANCIAL DATA:

President's Budget for FY 2011	\$4,230,000
Allocation Requested for FY 2012	\$4,230,000
Increase in FY 2012 from FY 2011	\$0

AUTHORIZATION: This program is conducted under the general authority of PL 78-534, the Flood Control Act of 1944 (58 Stat. 887).

JUSTIFICATION: On December 10, 1996, House and Senate appropriations subcommittee staff determined it was appropriate to allocate a portion of Civil Works projects appropriated funds to conduct certain, specified operations and maintenance activities that benefit all or a majority of operating Civil Works projects. This determination was formalized in appropriations language in FY 2002. Funding these multiple project activities as single entities, rather than on a project-by-project basis, is efficient and cost effective, reducing administration costs and providing for efficient management and oversight. An example of such an activity is the procurement of park ranger uniforms through a contract administered by the National Park Service. Providing a nationwide funding source for centralized procurement of these items used by all operating projects having a natural resources management program precludes the need for funds to be transferred by each project or district to a single procurement agent, a savings of from 60 to 300 transactions a year.

PROPOSED ACTIVITIES FOR FY 2011:

Nationwide (multiple-project) activities that will be accomplished in FY 2012 with these funds include the following activities:

1. Environmental Management System (EMS) Implementation. The EMS has been implemented at 42 designated projects. Funding this as a nationwide activity will allow USACE auditors to review and validate EMS implementation completion at required facilities without transferring funds from each project to a central source. The development of case studies and outreach materials for lessons learned provide initiative and support for other facilities/projects wishing to implement EMS in FY12 and future years.
2. Natural Resources Management Career Development/Training Support and Material Development. Funds are used to address training and career development issues for the Natural Resources Management Community. The needs of all 2,000 NRM field staff in the Corps are served through the development of numerous products, including a number of exportable training courses to meet established training requirements. Funding this as a nationwide activity is appropriate because all NRM field staff benefit equally from the work accomplished.
3. Park Ranger/Manager Uniforms. The Corps purchases uniforms for field personnel through an inter-agency contract administered by the National Park Service. Funding this as an inter-agency effort and as a nationwide activity reduces the administrative costs by eliminating the requirement to transfer funds from each individual project to the NPS. Significant economies of scale have been achieved through this arrangement since 1984. Costs include the authorized employee allowance funds (including an HQ-approved increase in replacement allowance), NPS contract administration costs, buy out of discontinued items, program management/committee support, and the purchase of required emblems.

National (Multiple Project) Natural Resources Management Activities

4. Printing and Publishing - Printing of forms, brochures, and similar materials used by all Corps projects achieves economies of scale and reductions in total administrative and procurement costs. Materials include Annual Day Use Passes and Brochures. Printed materials are stored at the Corps Publications Depot for distribution to all projects upon request.
5. Sign Standards Manual and Software Update and MCX Operation. A Mandatory Center of Expertise provides technical support and assistance to all projects in the operation of the Corps Sign Standards Program, through the maintenance of the Sign Standards Program Manual and software and providing technical assistance to field users. These efforts allow the Corps to maintain a consistent image that we present to the visiting public. Funding this as a nationwide activity assures competent and timely assistance to users, which increases the consistency, effectiveness and efficiency of the sign program.
6. Volunteer Clearinghouse Operation. The Volunteer Clearinghouse is operated under contract with Goodwill Industries to support volunteer efforts at all Corps projects. Funding this as a nationwide activity achieves economies of scale through the use of a single contract and reduces administrative costs by eliminating the need to transfer funds from all projects to the single contracting element.
7. Water Safety Products. The Corps Water Safety National Operating Center produces and distributes water safety products and programs to all Corps projects. Products educate and inform visitors of the dangers associated with water-oriented recreation. Significant economies of scale have been realized through the centralized administration of this program that assures current and critical topics are covered, using effective media targeted to high-risk groups. Drownings and associated lawsuits have been reduced significantly since the implementation of this program in the mid 1980's. Current command emphasis is requiring an even further reduction of fatalities during the next two years.
8. Other Nationwide NRM Activities. The following additional NRM Activities are recommended for funding to achieve cost efficiencies at the national level. Challenge Partnership Seed Funds; Critical Incident Stress Management (CISM) Program; Natural Resources Management Awards; Operations CoP Gateway; Partnership Advisory Committee; Property Protection Program; RecBEST Coach, Assist and Train Team; Career Assignment Program for Operations Project Managers; Visitor Center Initiative/Corps Story; and Bilingual Support Team.

ACCOMPLISHMENTS IN PRIOR YEARS: The allocation of project operations and maintenance funds to conduct specified nationwide (multiple-project) activities to improve the efficiency and cost effectiveness of the Corps NRM program has been employed, with subcommittee staff knowledge and concurrence, since the early 1990s for activities similar to those identified for FY 2012.

National Coastal Mapping Program

SUMMARIZED FINANCIAL DATA:

President's Budget for FY 2011	\$ 7,000,000
Allocation Requested for FY 2012	\$ 6,300,000
Increase of FY 2012 over FY 2011	\$ -700,000

AUTHORIZATION: These efforts are essential to providing data for efficient and effective management of critically important National water resources. Regional Sediment Management (RSM) activities are authorized by Section 516 of WRDA 96.

JUSTIFICATION: The National Coastal Mapping Program is the only Federal coastal mapping program that produces regional, operational data along the coast on a recurring basis. Regional Sediment Management requires regional measuring and monitoring to provide engineering, environmental, and economic data and information for decision makers and managers. There are approximately 7,500 miles of sandy coastline in the continental US and no other program in the Corps (or other Federal agencies) provides consistent, recurring, regional data to measure and monitor physical, environmental, and economic conditions, and their changes over time. It is the quantification of regional conditions and changes that will lead to improved management practices of entire regions and projects within those regions. Without these data, the Corps cannot fulfill its goal of a systems approach to coastal management, including navigation and coastal flood damage reduction projects.

The National Coastal Mapping Program continues development of next-generation technology to measure and monitor coastal zone engineering, environmental, and economic conditions on a regional scale. Certain aspects of existing sensor design and operational methodology have been found to impose fundamental limitations on the production of high resolution information and arise from the basic issue that existing lidar sensors are designed to excel in the measurement of a single variable, depth, in the deepest possible water. CZMIL is an effort to advance the state-of-the-art in the three major areas of algorithms, software, and hardware. The CZMIL project is intended to provide a sustained focus and collaboration among academia, industry, and federal government to review and refine existing capabilities for the measurement of additional regional coastal information, and to design and build a new generation of hardware and software wherein known limitations are addressed, and a wider range of engineering, environmental, and economic information is produced over a broader range of operating environments. While the measurement of depth under operational conditions is still of primary importance, improvements in data quality, target resolution, bottom classification, sediment transport detection, coastal change detection, and land use are desired and will be addressed.

PROPOSED ACTIVITIES FOR FY 2012: The program will continue collection of a second set of elevation and imagery data for the Great Lakes shorelines. Comparison of these new data with those collected between 2006 and 2008 will begin to provide information and knowledge on change and rates of change, sediment transport and erosion of sandy coasts, changes on and around navigation structures, change in wetlands or sea grass, and change in land use and coastal development and resiliency. Quantification of change is the information needed most for management of navigation projects and can only be determined from repetitive mapping. The CZMIL effort under the National Coastal Mapping Program will continue a year-long sensor characterization in which the capabilities of the new sensor are enumerated in a variety of environmental conditions; refine waveform summation algorithms for the deep-water channel; address weight and power consumption of the airborne chiller; implement a constrained spectral optimization algorithm, new lidar-only classifier developed under an ONR program, and NOAA VDATUM into the CZMIL Data Processing System; advance the scanner design; test new photoreceivers; and improve components of the real-time hardware and software. Exploitation of CZMIL data to assess functional performance of navigation projects, vulnerability of coastal projects to storms and sea-level change, critical habitats, and invasive species will continue.

ACCOMPLISHMENTS IN PRIOR YEARS: **From 2004 to 2008**, the National Coastal Mapping Program mapped the sandy shorelines of the Gulf Coast, East Coast, and Great Lakes. The program collects topographic lidar data at 1-m post-spacing from the waterline landward 500 m and bathymetric lidar data at 4-m post-spacing from the waterline to 1000 m offshore. The same area is covered concurrently with very high-spatial and -spectral resolution imagery. From these basic data sets, several derived information products are generated: digital elevation models of the coastal zone, orthometric imagery, bare earth DEMs, shoreline position, laser reflectance images of the seafloor and adjacent beaches, land cover classifications, and metadata. 4,000 linear shoreline miles were collected as part of normal program activities to support regional sediment management. 2,000 additional linear shoreline miles were collected in support of post-hurricane mapping activities along the Gulf and East Coasts. The Corps coordinated with other Federal agencies (Navy, NASA, USGS, and NOAA) to eliminate duplication and leverage programs to maximize survey coverage. This coordination was very successful and has resulted in very close and continuing coordination since 2004. Approximately \$200 million was spent reconstructing shore protection projects based on results determined from these national coastal mapping data after the 2004 hurricane season in Jacksonville and Mobile Districts. After Hurricane Katrina, these capabilities were used to assess the impact of the National Disaster, to baseline conditions for both physical and wetland recovery, and were used in analyses for the Corps of Engineers IPET study. State, local, industry and academic organizations are using these data for many coastal management applications, projects and programs.

In 2009 and 2010, a combination of program funds, hurricane supplemental funds, and ARRA funds enabled simultaneous National Coastal Mapping operations on the West Coast, Gulf Coast, and East Coast using all three commercially available airborne lidar bathymetric sensors. Beginning in Texas, upon reaching Mississippi we succeeded in the first survey of the US coast and began mapping the coast for the second time. **In 2011**, the program returned to the Great Lakes to collect a second set of elevation and imagery data for the lakeshores. The first coverage provides the first-ever inventory of Federal Navigation projects and coastal shore protection projects. The second survey of each coast will begin to provide information and knowledge on change and rates of change, sediment transport and erosion of sandy coasts, change in wetlands or sea grass, and change in land use and coastal development and resiliency. Quantification of change can only be determined from repetitive mapping, which is the information needed most for management of navigation projects. In addition to the standard products, new products aimed at quantifying change since the first survey of the program, like elevation difference surfaces, will be provided to the districts. The one-year survey effort afforded by the combination of funds will also provide a unique synoptic view of the nation's coasts and coastal infrastructure against which to measure the impacts of expected changes in sea-level in the coming years.

National Coastal Mapping Program data are distributed to the Corps Districts in which they are collected, to several States, academia, and industry, and to USGS and NOAA where they remain available for download through Federal data archives. As of December 2010, there had been 8,565 individual downloads of over 375 billion data points from the National Coastal Mapping public distribution website. The data were used to assess regional and project hurricane impacts and provided necessary data for planning, engineering, construction and operations.

From 2005 to 2009, the CZMIL effort under the National Coastal Mapping Program generated conceptual and detailed designs for next-generation integrated hardware and software system for airborne coastal data collection and product generation, and additions and improvements to current processing pipeline. A cutting-edge spectral decomposition algorithm allows creation of seafloor images and water column constituents like chlorophyll, dissolved organic matter, and suspended sediments from the hyperspectral imagery without the costly (in time and accuracy) pre-processing steps of atmospheric and water surface correction. The shallow water algorithm and RGB image mosaicing program developed under CZMIL were put into operation to streamline manual processing and orthomosaic generation for the National Coastal Mapping Program. **In 2010 and 2011**, the CZMIL Data Processing System Version 1 for survey planning and management, real-time data collection, and software for post-processing to standard data products was delivered. Airborne testing and characterization of the Data Acquisition System began enumerating the capabilities of the new sensor in a variety of environmental conditions: varying water types, seafloor types, and water surface conditions. The University of Southern Mississippi characterized its performance and the quality of resulting data products. This information will speed acceptance of the technology by the surveying and mapping community, and inform the design of robust standard operating procedures for future CZMIL field deployments. New algorithm development focused on evaluating condition of coastal infrastructure and discriminating critical habitat from the collected datasets, development and application of regional sediment budgets for enhanced navigation project management, 3D visualization and analysis of high-density, highly-dimensional datasets, to infer depth information in turbid waters, and on tools for the exploitation of data by the navigation community.

APPROPRIATION TITLE: Operations and Maintenance – Fiscal Year 2012

National Dam Safety Program – Portfolio Risk Assessment

SUMMARIZED FINANCIAL DATA:

President’s Budget for FY 2011	\$17,450,000
Allocation Requested for FY 2012	\$15,000,000
Change of FY 2012 from FY 2011	\$ -2,450,000

AUTHORIZATION: Dam safety legislation PL 92-367 and PL 99-662, and the National Dam Safety Program Act (Section 215 of PL 104-303), the Dam Safety and Security Act of 2002 (Public Law 107 - 310) and the Dam Safety Act of 2006 (Public Law 109-460).

JUSTIFICATION: The Federal Guidelines for Dam Safety provides a framework for safe construction, operation, and maintenance of Corps dams. Dams in the United States must be constructed, operated, and maintained in accordance with sound engineering practices to prevent failure and avoid potential loss of life and destruction of property. This National Dam Safety Program (NDSP) account consists of two parts: (1) the operation of the NDSP including participation with other agencies; and (2) implementation of a risk analysis program for all Corps dams, including recurring mapping and interim risk reduction work. Corps has 692 Dams that are located at 557 projects. The number of dams includes appurtenant structures (Saddle Dams, Levees, Dikes) that have different downstream consequences from the main dam.

(1) The NDSP was established to enhance national dam safety. These funds support the activities under the NDSP, in the interests of the Corps and the citizens of the Nation. The National Dam Safety Program Act strengthens the NDSP, whose purpose is to reduce risks to life and property from dam failure in the United States. The Act also codified the Interagency Committee of Dam Safety (ICODS) to coordinate the Federal actions under the NDSP. The Chief, Engineering and Construction, Directorate of Civil Works (USACE, Dam Safety Officer), or his representative, represents the Department of Defense as a member of ICODES. The Corps also provides a representative to the National Dam Safety Review Board for the Secretary of Defense. The National Dam Safety Program Act expanded the scope of previous dam safety legislation and the requirements for ICODES participation with various states to improve dam safety in the United States. Through ICODES, the NDSP provides support in development of federal guidelines for dam safety, promotion of public awareness programs, publications, training materials, workshops, and post dam failure forensic team participation. The Act also provides for archival research that is supported by Federal dam owning agencies through ICODES and the National Performance of Dams Program. The Dam Safety Act of 2006 extended the National Dam Safety Program Act appropriation authorization for five years.

(2) While no Corps dams are in imminent danger of failure, many of them have a high dam-safety risk due to the likelihood of extremely large floods, seismic events, seepage and piping problems, and other damages and/or deterioration problems. The need to prioritize budget activities requires that the Corps uses risk assessment as a central part of the decision-making process to direct funding to those dam safety issues presenting the greatest risk and to those rehabilitation actions that result in the greatest risk reduction for their cost. For each dam in the portfolio, the risk assessment provides estimates of the probability of failure and consequences by each initiating event. In addition, risk reduction measures are formulated and their cost and effectiveness estimated. The results arrayed by risk level and risk reduction cost effectiveness provide a risk ranking for the portfolio of dams. The portfolio risk assessment (PRA) process has demonstrated its value starting in Fiscal Year 2005 by identifying a number of dams with high risks. The initial screening of all Corps projects was completed in Fiscal Year

APPROPRIATION TITLE: Operations and Maintenance – Fiscal Year 2012

National Dam Safety Program – Portfolio Risk Assessment (Continued)

2010. The requested Fiscal Year 2012 funding will be used to perform detailed risk analysis on the highest risk dams in the portfolio and identify appropriate studies and corrective actions necessary to meet the Corps dam safety responsibilities.

PROPOSED ACTIVITIES FOR FY 2012:

(1) The NDSP account provides effective coordination of dam safety activities across the various regions of the Corps and provides for Corps participation at national dam safety events. The account also provides for District participation on the National Dam Safety Management Team, which advises the Corps Dam Safety Officer on safety of dams policy. The NDSP supports Corps membership and participation in various national and international dams organizations including the Association of State Dam Safety Officials (ASDSO), the US Society on Dams (USSD) and the Dam Safety Interest Group (DSIG). The USSD along with its international counterpart, the International Committee on Large Dams (ICOLD) supports technical knowledge concerning the benefits, engineering, design, and construction of dams. The DSIG is an international group of dam owners involved in research and development of dam engineering. Participation with the DSIG allows the Corps to leverage Civil Works research and development funds.

(2) During Fiscal Year 2012, the Risk Management Center will direct and manage the Corps-wide PRA efforts. The policies and methods for conducting higher level risk analysis are now in place, and more detailed analysis will be completed on the highest risk dams in the portfolio as previously identified by the screening level PRA's. The districts are responsible for collecting appropriate project data, assisting in the analysis of data gaps, using expert judgment to estimate for missing parameters, coordinating meetings, correspondence, and site visits, if required, updating essential plan, studies, or reports, and participating in training on risk analysis and probability methods. The national cadres, under the direction of the Risk Management Center, will conduct risk analysis on the highest priority projects, evaluate, confirm, or update interim risk reduction measures, and identify project specific follow-on actions. The results of the detailed PRA's will be used at the national level to formulate study plans for inclusion in the regular budget cycles, identify appropriate corrective actions, and determine the urgency of such actions. Common risk methodologies for dam and levees will be developed. A Dam Safety Investment Plan (DSIP) is currently under development, with the ultimate goal of determining short and long term construction strategies for modification and repair of all high risk dams in the portfolio. This investment plan will be used to demonstrate how these strategic investments reduce the overall risk of our national portfolio in the most efficient and cost effective manner. This investment Plan will also provide short and long term budget forecasting requirements for requesting both WEDGE funds and Construction General (CG) funding as part of the normal budgeting cycle. The database of information from the PRA will be linked to the existing Dam Safety Program Management Tools (DSPMT) and the Operations & Maintenance Budget Information Link (OMBIL) to maximize the use of the information developed. Additional emphasis will be placed on the completion of inundation mapping at all DSAC I and II dams.

ACCOMPLISHMENTS IN PRIOR YEARS:

(1) The NDSP account provided Corps presentations at the United States Society of Dams (USSD) conference and the Association of State Dam Safety Officials (ASDSO) during FYs 2009 and 2010. The NDSP account provided field participation in preparing responses to the recommendations of the Corps Peer Review of the Dam Safety Program. Additional funds provide for continued development of the Dam

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Safety Program Management Tools (DSPMT) and the Dam Safety Program Performance Measures (DSPPM). Both programs are being developed along with the Interagency Committee on Dam Safety (ICODS) to improve both Federal and State safety of dams programs.

(2) Portfolio Risk Assessment portion of this account has provided initial work in the development of overall procedures for the continuing analysis of the portfolio of dams. During FY 2005 through FY 2010, this work included the formulation of risk management policies and guidelines, development of reliable methodologies and calculation tools used for the determination of risk estimates, selection and training of regional PRA cadres and the screening of all the Corps dams in our national portfolio. The results of this work are already being used in prioritizing the remediation of dams.

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National Emergency Preparedness Program (NEPP)

SUMMARIZED FINANCIAL DATA:

President's Budget for FY 2011	6,750,000
Allocation Requested for FY 2012	6,750,000
Change in FY 2012 from FY 2011	0

AUTHORIZATION: Executive Orders 10480 and 12656, which cite several acts including The Stafford Act.

JUSTIFICATION: The budget request will enable the Corps to be prepared to accomplish its continuity of operations and continuity of government responsibilities during national/regional crises. This entails support of civil government through coordinated execution of federal agency plans and the planning/conducting of limited exercises to test readiness to provide such support. Executive Orders 10480 and 12656 and the Department of Homeland Security (DHS), Federal Emergency Management Agency (FEMA) under the Robert T. Stafford Disaster Relief and Emergency Assistance Act, 42 USC 5121 et seq. are the basis of the National Response Framework. The cited executive directives assign significant responsibilities for such preparation (planning, training, research and testing) to the Corps. This includes responsibility for development of comprehensive national level preparedness plans and guidance for response to all regional/national emergencies, whether caused by natural phenomena or acts of man, plans for response(s) to acts of terrorism, and the local preparedness necessary to support Corps continuity of operations. The Corps provides engineering and construction support to state and local governments in response to catastrophic natural/technological disasters. Rapid response to disasters of a regional/national magnitude requires that extensive pre-emergency planning and preparedness activities be conducted to assure the availability of a work force capable of shifting from routine missions to crisis operations and the organizational command and control structure(s) necessary to provide a coordinated and comprehensive response in the critical early stages of a catastrophic disaster.

This program provides the activities necessary to prepare for response to catastrophic natural and technological disasters requiring major Federal support of state and local governments overwhelmed by a disaster event. The preparation requires the development of plans, training of employees, conducting training exercises, including support to FEMA exercises and coordination within DOD and with other Federal agencies and state and local governments. Unlike the Corps Civil Works programs related to individual project planning, development and operations and maintenance, NEPP requires the development of an integrated command planning and response capability. Corps divisions have a key role in the planning, coordination and operational control of multi-district response(s) and the integrated preparedness effort required for accomplishing this response. Preparation also includes the Headquarters sponsored Corps-wide programs necessary to provide the capabilities and operational command and control required by Corps field commands in order to accomplish their NEPP responsibilities, both routinely and in specific emergency response situations. NEPP also provides USACE with the ability to engage and coordinate readiness with other agencies at the National level on programs of Federal primacy or interests.

NEPP is complementary to the Flood Control and Coastal Emergencies (FCCE) appropriation. Although both programs are related to emergency situations, there is a distinct separation of responsibilities. The NEPP provides for the planning, training, and testing activities necessary to develop the capability to meet essential requirements associated with local continuity of operations and response(s) to scenario specific national/regional crises. FCCE, on the other hand, provides preparedness and response related to emergency flood fighting, post-flood repair and restoration of flood and shore protection works damaged or destroyed by floods, hurricanes or wave action and Corps preparedness associated with National Response Plan/Framework mission requirements.

PROPOSED ACTIVITIES FOR FY 2012: The FY 2012 program will provide for continuing the implementation of the National Emergency Preparedness Program. The FY 2012 program will continue the process of catastrophic disaster planning and exercising to enable the Corps to rapidly respond to a broad spectrum of emergencies, with emphasis on natural disaster and terrorists' events that have regional and national implications, such as the Homeland Security Council's National Planning Scenarios. An effort will be made to satisfy increasing demands on the program to support multi-agency (Federal, state, and local government) requests to exercise plans focusing on regional catastrophic natural and man made disasters. Increasingly, Federal, state and local agencies are looking to the Corps in this area. Lessons learned from events such as Senior Leader Seminars, the National Capitol Region workshops, Hurricane Katrina, and the evolving New Madrid earthquake scenario, clearly indicate that the current system does not adequately provide for a response to catastrophic disasters that is timely enough or comprehensive. The Corps has initiated a program that uses the deliberate planning process to develop scenario specific catastrophic disaster plans. This will result in more detailed planning and should provide for a more comprehensive response to national/regional catastrophic disasters to include terrorist attacks. More extensive coordination with Federal, state and local entities will be incorporated into plan development. In this regard, following FEMA's program focus, USACE will continue to play a key role in national security planning such as supporting Homeland Security strategic planning efforts, development of the National Capitol Region Response Plan, catastrophic hurricane and earthquake responses, and other man-made contingencies with national implications. Completing/Updating plans and regional readiness workshops for the National Level Exercise is critical in FY 2012, and is planned by DHS. A key focus is National Level Exercise 2011 (NLE-11), which is based on a New Madrid Seismic Zone catastrophic earthquake (National Planning Scenario 9, Natural Disaster – Major Earthquake), is the testing and validation of the Operations Plan (OPLAN) 2010-70 USACE Response to a Catastrophic Earthquake in the New Madrid Seismic Zone (NMSZ). As a primary support to DHS/FEMA, the Corps has major responsibilities including restoring navigation to the Mississippi and Ohio River systems, providing temporary power solutions, water/wastewater infrastructure restoration and leading debris removal operations. The purpose of NLE-11, which consist of a series of building block exercises, workshops, seminars, functional and tabletop exercises is to evaluate catastrophic event preparedness with a focus on stabilizing the impacted zone within 72 hours in line with DHS/FEMA's Whole of Community concept as well as develop New Madrid recovery solutions in the context of the National Disaster Recovery Framework, especially the Infrastructure Systems Recovery Support Function in which the Corps has a leading role. Additional efforts will focus on continuing to strengthen COOP readiness and conducting exercises, aligned with the highest national priorities, within the scope of available funding during FY 2012, improved catastrophic disaster response planning and emergency management technical assistance program for technology support, development and transfer of knowledge.

ACCOMPLISHMENTS IN PRIOR YEARS: The Corps continued to emphasize a program that uses the deliberate planning process to develop scenario specific catastrophic disaster plans. Extensive coordination with Federal, state and local entities has been incorporated into plan development. In this regard, following FEMA's program focus, USACE has continued to play a key role in national security planning such as supporting Homeland Security strategic planning efforts, development of the National Capitol Region Response Plan and other plans such as the New Madrid Earthquake, the New Orleans Hurricane, the Los Angeles Earthquake and other contingencies with national implications, such as the fifteen national planning scenarios developed by the Homeland Security Council. Additional efforts focus on continuing to strengthen COOP readiness. Exercises, involving federal, state and local officials, have contributed to a more timely and effective execution of Corps responsibilities during disasters that have national impacts. Urban Search and Rescue (US&R) Training was conducted to recertify cadre members to advanced Structures Specialists, to provide US&R-level weapons of mass destruction training to meet FEMA requirements, to prepare and conduct a new recruit Structures Specialist training course and to purchase associated equipment for the support teams. Seminars, workshops, and exercises, such as mentioned above, have strengthened partnerships and promoted mutual understanding of the roles, responsibilities and interests of USACE, FEMA, other Federal agencies, and State and local governments involved in natural disasters and terrorists' responses. They have provided an excellent opportunity to examine contingency plans, capabilities, and communications at federal, state and local levels. Also, region-

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specific issues have been identified and addressed at exercises. National level interagency coordination continued through participation in exercises.

SUMMARIZED FINANCIAL DATA:

President’s Budget for FY 2011	571,000
Allocation Requested for FY 2012	571,000
Decrease of FY 2012 from FY 2011	0

AUTHORIZATION: Specific project authorizations, Section 216 of the River and Harbor and Flood Control Act of 1970.

JUSTIFICATION: The National Portfolio Assessment for Reallocations was a two year appraisal, initiated in FY 2008, to develop a portfolio of existing Corps of Engineer multipurpose projects to be used as a screening tool to identify the best candidates for opportunities for operational changes and/or reallocation opportunities. During the development of the survey for this assessment, the Corps was considering two other national surveys, one on the water management aspects of Corps reservoir projects and another on sedimentation management concerns. Recognizing that gains could be made from both monetary and district responsive aspects, these three efforts were combined into one. This two year survey and assessment has is now nearing completion on:

- (1) The development of a portfolio of Corps projects that identified the best candidates for opportunities for operational changes and/or reallocation opportunities to ensure existing Corps reservoirs contribute to enhance economic and ecosystem values as water demands evolve and a better understanding of global warming issues is gained.,
- (2) A paper on alternative funding arrangements for water supply reallocation studies,
- (3) A database to examine the status of Corps water management from local, regional, and national perspectives,
- (4) An engineering and scientific foundation for a national adaptive management program,
- (5) A baseline data set for investigating the evolution of operational water management policies,
- (6) An assessment of sediment infilling, its impacts to operating purposes and management practices, and
- (7) A database for sediment data collection efforts.

The Corps of Engineers had previously launched a Sustainable Rivers Project in 2002. The purposes of this effort are to assess ecosystem needs downstream of Corps projects and to evaluate water management opportunities for potential operational changes and/or reallocations to enhance ecosystem values while maintaining or improving primary project purposes (e.g. flood risk reduction, water supply, and hydropower). In addition to the development of new modeling tools to support these assessments, this effort resulted in the initiation of pilot projects in eight river basins. These pilot projects seek to define ecological needs, model potential operational changes, and implement and monitor ecological outcomes resulting from the changes to the project’s operation. These site-based efforts complement the national portfolio assessment by evaluating water management aspects of reservoir projects and demonstrating an adaptive management approach that can be used to ensure Corps projects maintain their existing purposes while contributing to and/or enhancing economic and ecosystem values as water demands evolve.

A report entitled “A Strategy for Federal Science and Technology to support Availability and Quality in the United States” was published by the Executive Office of the President of the United States in September 2007. This report was a product of the

Subcommittee on Water Availability and Quality of the National Science and Technology Council's Committee on Environment and Natural Resources. This committee was charged with: (1) identifying science and technology needs to address the growing issues related to fresh water supplies, (2) developing a coordinated, multi-year plan to improve research to understand the process that control water availability and quality, and (3) enhancing the collection and availability of the data needed to ensure an adequate water supply for the Nation's future. As a result of the information obtained from the completed two year survey and from the initial success of the Sustainable Rivers Project pilot sites, it is clear that it would be desirable to continue the assessment and pilot demonstration efforts to address the national needs as identified in 2007 report from the Executive Office of the President of the United States.

This assessment of data program also is supported by Public Law 111-11, the Omnibus Land Management Act of 2009. Section 9508 of the law is titled, "National Water Availability and Use Assessment Program." While the direct responsibility for this is with the Dept. Of Interior, consultation with the Corps is provided for. The purposes of this section 9508 are to provide a detailed assessment of:

- The current available of water resources in the U.S.
- Significant trends affecting water availability, including each documented or projected impact due to climate change
- The withdrawal and use of surface water and ground water by various sectors
- Significant trends relating to each water use sector including significant changes in water use due to the development of new energy supplies
- Significant water use conflicts or shortages that have occurred or are occurring
- Each factor that has caused or is causing a conflict or shortage

PROPOSED ACTIVITIES FOR FY 2012: INITIAL FUNDING. Funding in the amount of \$571,000 will continue the two-increment effort initiated in fiscal year 2010.

1) **Assessment of Data.** Funding in the amount of \$286,000 will be used to continue the efforts initiated in fiscal year 2010 by developing in more detail the development of a national program on water management through a report on the Corps Reservoir Management Function. Such efforts will include:

- Incorporate information from the Portfolio, Water Management and Sediment surveys
- Incorporate information from drought contingency plans
- Incorporate data from climate change studies
- Incorporate data from the Draft Water Quality Data Management Implementation Plan (WQDMIP) and the Reservoir-Sedimentation Database (RESSED)
- Develop a project by project projection of water availability and sustainability over the next 10, 20 and 50 year periods
- Roll the developed data up into basin and regional projections
- Develop a program to keep the data current

2) **Sustainable Rivers.** Funding in the amount of \$285,000 will be used to advance an ongoing effort to improve practices for evaluating evolving water demands and will be used to continue the efforts initiated in fiscal year 2010 to:

- Support the definition of environmental flow needs
- Model application
- Implementation of operational changes to meet environmental flow needs
- Monitoring and initiation of a process to revise water control plans at selected Sustainable Rivers Project pilot sites.

Experiences at existing sites will be used to inform other efforts to modify project operations and refine the practices for evaluating evolving water demands.

PROPOSED ACTIVITIES FOR FY 2012: RECOMMENDED.

- 1) **Assessment of Data.** No change from the Initial Funding Level
- 2) **Sustainable Rivers.** No change from the Initial Funding Level

ACTIVITIES IN FY 2011: The fiscal year 2011 funding of \$571,000 was a two-increment effort.

- 1) **Assessment of Data.** Funding in the amount of \$300,000 was used to continue to analyze the data collected in the Portfolio, Water Management and Sediment surveys performed in fiscal years 2008 and 2009 and complete the follow on reports. Efforts were also initiated to develop a Corps Reservoir Management report and provide additional data on sedimentation, water quality and climate change activities at Corps reservoir projects
- 2) **Sustainable Rivers.** Funding in the amount of \$271,000 was used to continue the efforts of modeling select Corps Sustainable Rivers Project pilot sites with the objective of identifying the need to implement operational changes to meet environmental flow needs.

APPROPRIATION TITLE: Operation and Maintenance – Fiscal Year 2012

Program Development Technical Support

SUMMARIZED FINANCIAL DATA:

Appropriation for FY 2011	\$300,000
Allocation Requested for FY 2012	\$300,000
Change in FY 2012 from FY 2011	\$ 0

AUTHORIZATION: A new automated information system, P2, has replaced ABS for budget development processes. The transition to P2 from ABS has aligned all Civil Works budget requests within one automated information system. Previously, the Automated Budget System (ABS) supported gathering, analyzing and submitting project funding requests to respond to all authorized missions within the Corps of Engineers Operation and Maintenance program.

JUSTIFICATION: The new AIS, P2 provides the program development capability previously provided by ABS. The transition to P2 from ABS for program development began in FY 2007 and continued through FY 2011. Work under this activity in current and future years continues to ensure that all relevant business processes and monitoring needs are incorporated into P2, data requirements continue to be refined, and analytical capabilities are expand to meet the needs of the budgeting process without creating an undue administrative burden. Changes are being incorporated to support the budget development needs and to continually refine the system to meet evolving objectives. The deployment of P2 and updated versions has shifted program efforts towards development of methods and procedures for setting program priorities and providing technical support for all civil works activities and analysis across the civil works program.

PROPOSED ACTIVITIES FOR FY 2012: Continue to assist civil works program development for budget submissions and identify needed changes and recommend new analytical program development tools and procedures to support civil works program development.

ACCOMPLISHMENTS IN PRIOR YEARS: Maintained and updated the software systems, provided new tools to generate reports, provided training and support to managers. Enhanced program development tools for civil works within P2 environment.

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Protection of Navigation (Four Items)
Protection, Clearing, and Straightening of Channels
Removal of Sunken Vessels
Waterborne Commerce Statistics
Harbor Maintenance Fee Data Collection

SUMMARIZED FINANCIAL DATA:

President's Budget for FY 2011	\$6,146,000
President's Budget for FY 2011	\$6,146,000
Change in FY 2010 from FY 2011	\$ 0

AUTHORIZATION:

Protection, Clearing, and Straightening of Channels - Section 3 of the 1945 River and Harbor Act (as amended by Section 915 (g) of the 1986 Water Resources Development Act) provides continuing authority for limited emergency clearing of navigation channels not specifically authorized by Congress.

Removal of Sunken Vessels - Removal of sunken vessels, or other similar obstructions, is governed by Sections 15, 19, and 20 of the River and Harbor Act of 1899, as amended.

Waterborne Commerce Statistics - The Corps of Engineers (Corps) serves as the Federal Central Collection Agency, and is the sole U.S. Government source for U.S. domestic waterborne commerce and vessel statistics in conformance with the River and Harbor Act of 1922 as amended. The Office of Management and Budget (OMB) pursuant to Title 44 U.S.C. 3509 and 3510 transferred primary responsibility for U.S. foreign waterborne transportation statistics mission from the Bureau of the Census to the Corps in 1998.

Harbor Maintenance Fee Data Collection - PL 103-182.

JUSTIFICATION: The budget estimate provides for carrying out the following work:

- a. Protection, Clearing, and Straightening of Channels - Work is undertaken as emergency measures to clear or remove unreasonable obstructions to navigation in navigable portions of rivers, harbors and other waterways of the U.S., or tributaries thereof, in order to provide existing traffic with immediate and significant benefit. The amount requested is an estimate based on historical experience. If actual requirements are more than estimated, funds will be reprogrammed to meet demonstrated needs.
- b. Removal of Sunken Vessels - Primary responsibility for removal belongs to the owner, operator, or lessee. If the obstruction is a hazard to navigation and removal is not undertaken promptly and diligently, the Corps may obtain a court judgment requiring removal, or remove the wreck and seek reimbursement for the full cost of removal and disposal. Determinations of hazards to navigation and Federal marking and removal actions are coordinated with the United States Coast Guard in accordance with a memorandum of understanding between the two agencies dated

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16 October 1985. Removal procedures are outlined in 33 CFR 245. If removal requirements are more than estimated, funds will be reprogrammed to meet actual needs.

c. Waterborne Commerce Statistics - The data provide essential information for navigation project investment analyses and annual funding prioritization for operation and maintenance of existing projects; as project output information for computation of performance measures; for input into the U.S. National Accounts; and for regulatory, emergency management decisions, and homeland defense. Activities supporting this national statistics mission include: (1) collecting and reporting (includes enforcement role) of water transportation statistical data; (2) automated systems development and operation (transactional systems within Operation and Maintenance corporate information system), processing, compiling, and publishing statistical data and information on waterborne commerce and vessels moving on the internal U.S. waterways, the Great Lakes, and through all U.S. ocean channels and ports; and (3) compiling and publishing the official U.S. documentation of U.S. vessels engaged in commerce, their principal trades and zones of operation.

d. Harbor Maintenance Fee Data Collection - Up to \$5 million is authorized to be used annually for the administration of the Harbor Maintenance Trust Fund. Most of these funds are used by U.S. Customs and Border Protection (CBP). The Corps performs analysis of Harbor Maintenance Trust Fund (HMTF) revenues and transfers to validate the adequacy of the HMTF in light of the uncertainty over the legal and international challenges to the Harbor Maintenance Fee (HMF), to document the operation of the trust fund, and to prepare and distribute the *Annual Report to Congress on the Status of the Harbor Maintenance Trust Fund*. Analysis of waterborne commerce shipments and vessel movement data is also needed to respond to legal questions to the HMF; to analyze alternative funding options; and to assess the economic and competitiveness impacts of other potential funding sources. The Corps is also required to collect data on foreign and domestic shippers subject to the fee. Therefore, the Corps requires a portion of the administrative funding to continue its ongoing HMTF support efforts. The General Accountability Office (GAO) issued its final report (GAO-08-321), which recommend that the CBP and the Corps improve their coordination and procedures in order to increase HMF collections by auditing domestic shippers failing to pay or under paying the HMF mandated by law. Preliminary estimates show that improved collections could increase annual receipts by approximately \$500 million. The additional funding requested for FY 2011 will be used to comply with the GAO recommendation by improving the quality and completeness of the domestic shipper information collected by the Corps and improving Corps computer models and programs and data sharing between CBP and the Corps.

<u>FUNDING PROFILE</u>	<u>Appropriation FY 2011</u>	<u>Allocation Requested for FY 2012</u>
(a) Protection, Clearing, and Straightening of Channels	\$ 50,000	\$ 50,000
(b) Removal of Sunken Vessels	\$ 500,000	\$ 500,000
(c) Waterborne Commerce Statistics	\$4,771,000	\$4,771,000
(d) Harbor Maintenance Fee Data Collection	\$ 825,000	\$ 825,000
TOTAL	\$6,146,000	\$6,146,000

PROPOSED WCS / HMF ACTIVITIES IN FY 2012: Perform operations, maintenance and necessary enhancements of nation's waterborne commerce, vessel and shipper data and statistics programs. Implementation, and with continued modification of Corps automated systems, to accept new real-time domestic electronic data to improve accuracy of domestic and foreign transportation statistics. Increase project detail data requirement for budget submissions and economic justification. Expansion of water transportation data connection with landside movements.

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Collaborate with CBP to improve CBP-Corps data communication systems to target delinquent domestic shippers for audit to increase HMF collections. Continue ongoing HMF data collection and analysis programs. Develop and implement improved data collection systems and data analysis models and program computer enhancements to provide more complete/accurate domestic shipper information.

ACCOMPLISHMENTS (WCS / HMF) IN FY 2011: Maintained FY 2011 data quality and completeness. Provided enhanced navigation project output data for budget formulation. Continued worked with other Federal agencies and industry to implement a new modern, comprehensive automated domestic waterborne data collection system. Established partnerships and data exchanges with other Federal agencies (CBP, IRS, USCG and EPA), and industry to improve the accuracy, availability and timeliness of the data the Corps collects for managing capital investments in Corps projects. Integrated the Corps location codes into the processing systems used at CBP, USCG, and IRS. Established project to harmonize and integrate information regarding navigation points of interest (i.e. piers, wharves, docks, bridges, locks) maintained by the Navigation Data Center (NDC) and the Army Geospatial Center (AGC). Coordinated with the National Channel Framework project to improve waterway network in providing more accurate depths/locations of docks and defined Corps projects.

Continued ongoing HMF data collection and analysis programs. Worked with CBP to plan and design improved systems to collect better data and improve computer programs and models in order to improve HMF collections from domestic shippers as recommended in GAO's report. Analyzed current CBP and Corps automated systems to design better methods for data and information exchange.

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Recreation One Stop (R1S)

SUMMARIZED FINANCIAL DATA:

President's Budget for FY 2011	\$65,000
Allocation Requested for FY 2012	\$65,000
Change of FY 2012 from FY 2011	\$0

AUTHORIZATION: These programs are conducted under the general authority of PL 78-534, the Flood Control Act of 1944 (58 Stat. 887).

JUSTIFICATION: The Recreation One Stop initiative is to enhance customer satisfaction with recreational experiences on public lands. It improves access to recreation-related information generated by the Federal government, streamlines the systems used to manage that information, and increases the sharing of recreation-related information among government and non-government organizations. At the direction of Office of Management and Budget (OMB), Recreation.gov and Volunteer.gov was combined and is now under the umbrella of RecreationOneStop, a priority E-gov initiative on the President's Management Agenda.

PROPOSED ACTIVITIES FOR FY 2011:

RecreationOneStop (R1S) activities that will be accomplished in FY 2012 with these funds include the following activities:

1. Recreation.gov - \$50,000: an interagency website providing public information about recreation opportunities on federal lands. A customer friendly recreation portal with information for planning visits to Federal recreation sites and making campground reservations. Cost is an annual fee for service payment to DOI to manage, operate and maintain the website.
2. Volunteer.gov - \$15,000: an interagency website coordinating volunteer activities among federal agencies. Provides a user-friendly, web based resource to citizens, offering a single point of access to information about volunteer opportunities nationwide. Volunteer.gov is a partner in the White House's USA FreedomCorps Network, and the site is also linked to the Recreation.gov website in which the Corps participates. Cost is an annual fee for service payment to DOI to manage, operate and maintain the website.

ACCOMPLISHMENTS IN PRIOR YEARS: Recreation.gov provides a customer friendly recreation portal with information for viewing and planning visits on over 4,000 Corps recreation sites and activities, reserve and make payment on line. Volunteer.gov provides a comprehensive clearinghouse of Corps volunteer opportunities. The public can enter geographic information about where they want to get involved and areas of interest to access volunteer opportunities offered by the Corps. Over 60,000 volunteers at Corps projects worked 1.5 million hours, providing \$30.3 million value of service in fiscal year 2009.

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Regional Sediment Management Program (RSM)

SUMMARIZED FINANCIAL DATA:

President's Budget for FY 2011	\$2,000,000
Allocation Requested for FY 2012	\$1,800,000
Decrease of FY 2012 from FY 2011	\$ -200,000

AUTHORIZATION: Section 516 of WRDA 96 authorizes the development of long-term strategies for the management and control of sediments through studies and operational activities.

JUSTIFICATION: The RSM Program objectives are to establish regional management strategies that link the sediment management actions at authorized Corps of Engineers (Corps) projects with one another, and to coordinate management activities with other Federal agencies, State, and local governments within the boundaries of physical systems including inland watersheds, rivers, estuaries, and the coast. The goal is to demonstrate short- and long-term cost savings and increased economic and environmental benefits through adaptive management of sediments from a regional perspective. The approach provides opportunities to achieve greater effectiveness and efficiency and to realize significant cost savings relative to traditional project management practices. Cost savings may be realized from reduced re-handling of material, extended dredging cycles and combined equipment mobilization and demobilization for linked projects (e.g., dredging and shore protection). Costs may also be reduced by sharing information and reduced duplication of field data collection, or by reducing duplication in model and tool development and application.

PROPOSED ACTIVITIES FOR FY 2012: Continue implementation of RSM through support to Districts and Divisions to include, but not be limited to:

- The RSM National Program will continue to coordinate efforts to promote systems-based technologies and approaches to improve sediment management activities for the USACE Civil Works mission. Major RSM National Program activities will include: coordination across the USACE Districts and Divisions to share knowledge and lessons learned; sponsoring the annual RSM Workshop and Program Review to promote program goals and technology transfer among RSM practitioners; participating in regional and national initiatives to promote the RSM concepts and approach; and presenting RSM Program benefits and goals to national and international audiences at major conferences including the European SedNet Conference.
- Continue development of a systems approach for operating and management of the major navigation projects within the Philadelphia District. Navigation projects operated and maintained within the Philadelphia District have traditionally been funded and managed on a project-by-project basis. An improved regional approach to the navigation program would identify common issues that are better solved on a regional basis, improve channel availability and subsequently life cycle costs and project benefits through more efficient practices, and improve regional efficiencies by engaging cross-mission objectives of the Corps (i.e., navigation, flood risk management, and environmental quality regarding sediments).
- The Mobile Bay Basin Watershed project will bring the lessons learned through application of the RSM principles and practices in the coastal environment to a broader watershed perspective for sediment and related environmental management planning. By linking the watershed and coastal environments through application of RSM concepts, we will improve our understanding of the watershed processes and improve our ability to make informed, cooperative watershed management decisions. This effort capitalizes on the opportunities presented through collaboration and leveraging with ongoing efforts in the watershed, available tools, and established relationships.

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- Coordinate and implement sediment management actions identified through the historical and contemporary sediment budgets developed for the Lower Lake Michigan/Indiana shoreline. Actions will be coordinated with partners and stakeholders to ensure needs are met, while improving the effectiveness and efficiency of current dredging and dredged material placement activities.
- Expand GENCADE model at St Johns to Duval County, Florida, to allow for the examination of how engineering activities and natural process on a local scale affect the region. This “living-model” of sediment exchange will be updated and used to evaluate the impact of project alternatives to sediment balance and to provide the framework for project, sediment source and sediment needs as they arise in the future. Modeling results defining potential sand management options will be combined with other geotechnical data to document the optimal use of sand sources (both from navigation projects and offshore borrow areas) between shore protection projects in the St. Johns and Duval County regions. This document will be used as a reference for other ongoing studies.
- Through knowledge gained under the Saginaw River, Michigan sediment trap evaluation, expand effort to the Manistee River, Michigan. Many harbors in the Great Lakes have federal navigation channels that extend miles upstream of the river mouth. Channel maintenance is problematic as material is typically deposited over the entire length of the navigation channel rather than concentrated in select areas that are easier to maintain. This effort will assess the engineering feasibility of sediment traps to reduce harbor sedimentation, identify the economic benefits, and enhance modeling capabilities for future evaluations.
- Expand the Sediment Management Database to a national database. The enterprise database will link with other databases to provide data access and tools to assist in the management of sediment and dredging information, project information, etc to provide the capability to identify needs and opportunities to implement sediment management strategies.
- Complete development of the regional sediment budget representative of existing conditions for the coastal and riverine system in southern Louisiana and coordinate efforts to implement adaptive management strategies identified through the effort. The effort includes: development of a coastal change database; development and application of coastal process models; and development of a regional sediment budget throughout the coastal zone and within the riverine systems. A framework consisting of the tools and geodatabases will provide means to efficiently evaluate engineering alternatives. Coordination amongst various resource agencies and MVN Operations Division will identify strategies to implement changes in managing material in an effort to reduce costs and maximize environmental benefit.
- Apply nearshore berm guidance to modify existing numerical modeling capabilities to provide tools to assist in the evaluation of nearshore berms for improved sediment management.
- Coordinate implementation of sediment management actions identified in the California Sediment Management Workgroup Master Plan.
- Apply 3_D sediment transport model for Ocean Beach and San Francisco Bight, California to identify and implement adaptive management strategies to improve the management of sediments in the modeled area. Enhance model for application in other regions which would benefit from a 3-D hydrodynamic and sediment transport model capable of simulating coastal, estuarine, and tidal-zone process. The model will guide future navigation O&M activities, disposal site selection and evaluation and the selection beneficial use sites for nearshore and onshore beach nourishment.

ACCOMPLISHMENTS IN FY 2011:

- Initiated development of a systems approach for operating and management of the major navigation projects within the Philadelphia District. Navigation projects operated and maintained within the Philadelphia District have traditionally been funded and managed on a project-by-project basis. An improved regional approach to the navigation program would identify common issues that are better solved on a regional basis, improve channel availability and subsequently life cycle costs and project benefits through more efficient practices, and improve regional efficiencies by engaging cross-mission objectives of the Corps (i.e., navigation, flood risk management, and environmental quality regarding sediments).
- Developed a conceptual sediment budget for the lower Mississippi River System and coastal Louisiana. The conceptual sediment budget is a qualitative model providing a regional perspective for coastal, estuarine, and riverine processes, incorporating natural morphologic indicators of net (and gross) sediment transport. This conceptual budget represents the best understanding of sediment sources, sinks, and pathways within the Louisiana regional system, and identifies areas with overlapping and conflicting data and therefore can be applied to direct future analysis and data collection.
- Developed historical and contemporary sediment budgets for the Lower Lake Michigan/Indiana shoreline. This effort will provide an understanding of the shoreline processes in order to project future conditions with predictive models and evaluate proposed alternative plans to seek comprehensive solutions that meet the needs of partners and stakeholders. The effort will improve USACE ability to forecast and plan for dredging needs within federal navigation channels; evaluate the effectiveness and efficiency of current and future dredging and dredged material placement activities conducted by USACE; and evaluate historic changes and alternative plans to protect and restore the shoreline
- Examined the effectiveness of sediment traps in the Saginaw River, Michigan. Many harbors in the Great Lakes have federal navigation channels that extend miles upstream of the river mouth. Channel maintenance is problematic as material is typically deposited over the entire length of the navigation channel rather than concentrated in select areas that are easier to maintain. This effort will assess the engineering feasibility of sediment traps to reduce harbor sedimentation, identify the economic benefits, and enhance modeling capabilities for future evaluations.
- Initiated expansion of the Sediment Management Database, initially focused on Long Island, New York, to include additional Districts. The enterprise database will link with other databases to provide data access and tools to assist in the management of sediment and dredging information, project information, etc to provide the capability to identify needs and opportunities to implement sediment management strategies.
- Completed RSM Plan for the Delaware Estuary to summarize the need, alternatives and impacts associated with improving sediment management activities including dredging estuary. The plan illustrates the economic benefits and long-term needs and clearly show the consequences of failing to meet needs. The RSMP includes an implementation strategy using the Regional Dredging Team (RDT) as a Steering Committee, and an outreach plan to ensure that private industry and NGOs have a forum to have their needs voiced and heard by the RDT. The RDT will continually monitor the implementation of the plan to ensure open dialog among stakeholders and provide a forum to discuss innovative solutions as they arise.
- Continued development of an RSM Plan for the South Coast of Rhode Island including coordination with stakeholders, data compilation and GIS population, and data gap analysis.
- Performed wave analysis and sediment tracer study for offshore placement berm at the South Jetty, mouth of the Columbia River to evaluate the fate of material in potential beneficial use site for Columbia River dredge material.

Appropriation Title: Operation and Maintenance – Fiscal Year 2012

Reliability Models Program For Major Rehabilitation and Asset Management

SUMMARIZED FINANCIAL DATA:

President's Budget for FY 2011	608,000
Allocation Requested for FY 2012	300,000
Change in FY 2012 from FY 2011	-308,000

JUSTIFICATION: The purpose of this program is to respond to yearly needs of Districts and Divisions that are preparing Major Rehabilitation reports for the upcoming fiscal year. The objective of the program is to provide reliability models for project features or components that are being considered for Major Rehabilitation, or to provide procedures to consider the impact of various chemical, environmental or physical processes in a reliability analysis.

PROPOSED ACTIVITIES FOR FY 2012: The requested funds will be used to prepare reliability models and collect data for reliability analyses anticipated to be required by several Districts. Reliability models and/or data are anticipated to be needed for the following: Testing of a reliability model for seepage through embankment dams and levees will continue; Begin testing of a reliability model for floodwall stability; Continue evaluation of data collected on performance of dam gates, to determine performance modes and verify load cycles used in reliability analyses, and electrical/mechanical systems model for locks and dams. Begin collecting data to develop reliability models for I-Wall Phase III evaluation and Concrete Dam for seismic stability. Provide reliability analysis procedures for additional selected hydropower equipment. It is also anticipated that two rehabilitation workshops would be conducted. The makeup of these units is subject to the needs of the respective Districts and Divisions. Continue to provide support and consultation for development of reliability model for Asset Management for Navigation and Flood/Coastal business line projects.

ACCOMPLISHMENTS IN PRIOR YEARS: Reliability models and other analytical tools have been provided in support of Major Rehabilitation reports on numerous navigation and hydropower projects. In addition, 20 rehabilitation workshops have been conducted in the last 12 years assisted to the Districts as they prepare their reports. These workshops offer guidance in conducting reliability and risk analyses, and provide the opportunity for interdisciplinary teams from the Districts to discuss their particular project with HQUSACE and other Districts personnel. In FY05 the Concrete Deterioration model for Lock Walls and the economic consequences will be finalized through a series of expert elicitation workshop which began in late FY04. These models will be applied to a district lock wall to aid in the Major Rehab Program justification. Two rehabilitation workshops were conducted. Expert Elicitation was conducted for the mechanical and electrical system for navigation locks. Conduct workshop for Jacksonville district. Continue to provide consultation and review in development of reliability model for major maintenance (as part of asset management). Computer programs – design of T-wall and Sheet piling –were modify to run reliability models for leave/wall system (Kansas city and New Orleans Districts projects).

Appropriation Title: Operation and Maintenance, General -- Fiscal Year 2012

Shoreline Permit Use Study

SUMMARIZED FINANCIAL DATA:

Appropriation for FY 2012	\$250,000
President's Budget for FY 2011	\$250,000
Change of FY 2011 from FY 2010	\$0

AUTHORIZATION: This program is conducted under the authority of Engineer Regulation 1130-2-406 Shoreline Management at Civil Works Projects.

JUSTIFICATION: There currently exist approximately 68,000 docks under the Corps shoreline use permit program. The current fee structure to recover the administrative costs has not changed since 1974, while the cost of administrating the program has increased significantly over the past 35 years. The current cost for permitting a floating facility is \$35 for 5 years or \$ 7 per year. These fees are returned to the treasury, as required by law, and not to the administrative unit of the Corps. Study completed in the 2011 indicates that changes are needed to Corps policies and regulations regarding administrative costs associated with shoreline permits and associated real estate licenses. The holders of permits and licenses also experience significant gain in property value that in many cases exceed tens of thousands of dollars. The Government should be fairly compensated for this value for private exclusive use.

PROPOSED ACTIVITIES FOR FY 2012:

The 2012 funding would be used to conduct follow-up work needed to implement a process for regional fee program(s) across the U.S. Applicable Corps policies and regulations will need to be revised; there also may be a significant amount of effort required to review proposed process in the Federal Register and get congressional buy in for proposed changes. The Master Planning Project Delivery Team may also be called upon to provide analysis and input on how regulations and policies for Master Plans must be changed to support proper land use planning for shoreline permits.

ACCOMPLISHMENTS IN PRIOR YEARS:

In FY10 an initial study was begun to review existing fee program(s) and capture the value of existing docks for private exclusive use. Analysis was completed in FY11.

Appropriation Title: Operation and Maintenance – Fiscal Year 2012

Water Operations Technical Support (WOTS)

SUMMARIZED FINANCIAL DATA:

President's Budget for FY 2011	\$653,000
Allocation Requested for FY 2012	\$500,000
Increase of FY 2012 from FY 2011	-\$153,000

AUTHORIZATION: These efforts are necessary to provide support for the restoration and management of Federal water resources.

JUSTIFICATION: Maintaining the high quality environmental and water quality conditions at 562 Corps reservoirs (5,500,000 surface acres), 237 navigation locks, 926 harbors, 75 hydropower projects, and 25,000 miles of inland and coastal waterways requires compliance with numerous statutes and state standards. Providing the technology and knowledge base necessary to broadly address environmental requirements in accordance with laws and regulations can best be accomplished through a comprehensive centralized program that will maximize cost effectiveness, and ensure broad dissemination and implementation of technology and information.

PROPOSED ACTIVITIES FOR FY 2012: The WOTS Program is expanding as environmental conditions at Corps project sites continue to deteriorate. The program will continue to provide effective environmental and water quality management technologies to address a wide range of issues at Corps reservoir and waterway projects, and in river systems nationwide. The program will provide technology to address: problems caused by aquatic invasive species; water quality impacts of landuse, sediment and nutrient loadings, erosion, and reservoir sedimentation; tailwater fisheries concerns at pump-back hydropower projects; and project operations related to environmental and water quality issues. WOTS will provide technical support to the Corps' mission related project responsibilities, with special emphasis on the transfer of technology. The program will ensure that the technologies developed by the Corps and other Federal agencies are current and readily available to all Corps field offices. The effective use of technologies will be secured through direct technical assistance, specialty workshops, information bulletins, technical notes, executive notes, technical reports, miscellaneous papers, instruction manuals, videos, meetings, seminars, briefings, congressional testimony, and the Internet.

ACCOMPLISHMENTS IN FY 2011: Since its inception in FY 1985, WOTS has provided environmental and water quality technological solutions to over 1,600 problems identified at projects from every Corps District. The WOTS program annually conducts specialty workshops, training personnel on the latest environmental and water quality management techniques; and publishes and distributes numerous copies of manuals, bulletins, notes, and reports. In FY 2011, the WOTS program successfully responded to over 40 direct technical assistance requests from 20 Corps Districts, conducted 5 training workshops on environmental and water quality management techniques, conducted 2 technology demonstration efforts to verify management strategies and techniques, and prepared several technical publications for distribution to the field. A continual endeavor of the WOTS program is coordination with water quality and environmental elements of other Federal agencies such as the Environmental Protection Agency, U.S. Department of Agriculture, Bureau of Reclamation, Fish and Wildlife Service, U.S. Geological Survey, Tennessee Valley Authority, and the Bonneville Power Administration. These efforts have involved problems related to the introduction and spread of aquatic invasive species, watershed management activities, environmental impacts of hydropower facilities, and impacts of water releases in tailwater areas on fisheries.

Appropriation Title: Operation and Maintenance – Fiscal Year 2012

Sustainability and Energy (New)

SUMMARIZED FINANCIAL DATA:

President's Budget for FY 2011	0
Budget for FY 2012	12,300,000
Increase of FY 2012 from FY 2011	12,300,000

AUTHORIZATION: Energy Independence and Security Act (EISA) of 2007 (§141-§142; §431-§434), Energy Policy Act (EPA) of 2005 (§103, §203), Executive Order 13423 (2007), and EO13514 (2009). These statutory and executive order requirements direct Federal Agencies to establish integrated strategies to reduce energy, water, and petroleum consumption, and greenhouse gas emissions.

JUSTIFICATION: In the execution of its missions, the Army is committed to complying with environmental and energy statutes, regulations, and Executive Orders. Foremost among the Federal drivers for sustainability performance and energy efficiency are Executive Order (EO) 13514, EO 13423, the Energy Independence and Security Act of 2007, and the Energy Policy Act of 2005. Addressing these requirements, particularly in this age of global environmental awareness and social responsibility, requires that the Army addresses sustainability from a lifecycle perspective throughout all aspects of its missions. The Army's Sustainability and Energy program is basically about driving life-cycle-based, strategic investments in our facilities, vehicles, and equipment to become more energy, water, and petroleum efficient and thereby reduce operating costs. The challenge, as always, is to find a way to increase the priority of these "efficiency requirements" so they actually get funded and executed even in today's austere financial environment. The Army took a bold initial step to improve its sustainability and energy performance by designating the Assistant Secretary of the Army (Civil Works) as the Senior Sustainability Officer (Executive Order 13514, Section 7) for the Corps of Engineers. In so doing, the Army made a profound statement regarding its expectations for the Corps of Engineers to become a leader in Federal sustainability and energy performance. A crucial aspect of the Army Sustainability and Energy program is its transparency: the Corps of Engineers is now tracking and reporting its sustainability and energy performance and budget information to OMB and CEQ separately from the rest of DoD. This demonstrates a level of corporate commitment that is particularly crucial in light of the fact that the Corps of Engineers is roughly 4 years behind other Federal agencies in terms of progress toward Federal sustainability and energy goals. The Sustainability and Energy program will accelerate Army efforts to catch up with the Federal sustainability requirements, including energy, fuel and water efficiency, renewable energy, sustainable buildings, regional and local planning, pollution prevention, sustainable acquisition, and electronic stewardship.

PROPOSED FY 2012 ACTIVITIES:

Sustainability and Energy activities in FY12 can be divided into two sets of programmatic requirements: 1. A \$2.3M requirement to be executed by HQ USACE to provide the "Tools" that USACE needs to meet statutory and executive order requirements, and 2. A \$10M investment in energy, water and petroleum efficiency that will be allocated through a competitive selection process administered objectively by HQ USACE to maximize USACE-wide reductions in energy, water, and petroleum consumption and greenhouse gas emissions while reducing O&M costs, and to do so through facility-level execution that begins providing return on investment in the shortest feasible timeframe.

Tools (\$2.3M) –

- Develop and implement Sustainability and Energy policy, as well as metrics, data tracking and reporting, and management review processes to guide, enable, document and communicate (internally and externally) Corps of Engineers Sustainability and Energy performance.
- Execute facility level energy and water audits at Corps of Engineers Covered facilities in accordance with EISA §432 and Federal Energy Management Program (FEMP) guidance.

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- Implement advanced metering of electricity consumption in targeted facilities in accordance with EAct §103 and FEMP guidance.
- Implement Sustainability and Energy training across all missions to assist organizations and personnel in identifying and adopting work practices conducive to energy, water, petroleum and natural resource conservation.
- Compile and report to OMB and CEQ the annual Comprehensive GHG Inventory.
- Provide centralized access to Corps-wide sustainability and energy data for all authorized users.
- Implement business processes to employ existing IT systems in the compilation and reporting of Sustainability and Energy data.

Competitive Investment (\$10M) –

- Allocate O&M funds for competitively-selected investments at the facility level to accelerate execution and enable USACE to catch-up with the Federal sustainability requirements including energy, fuel and water efficiency, renewable energy, sustainable buildings, regional and local planning, pollution prevention, sustainable acquisition, and electronic stewardship.
- Jump-start implementation of the Corps of Engineers' greenhouse gas reduction strategy with investments emphasizing energy and water efficiency in facilities and non-tactical vehicles.
- Non-tactical Vehicle (NTV) competitively-selected example requirement: Portland District in the USACE Northwestern Division identifies a requirement to replace 5 conventional, gasoline-powered, GSA-leased sedans that are used for routine on-site O&M activities at a hydropower project, with 5, Low Speed Electric Vehicles (LSEVs). The total cost of the 5 LSEVs is \$50K. The budget package justification includes the following data:
 - LSEVs would be charged using USACE, on-site, station power (hydropower) at no cost to USACE and with no GHG emissions
 - Annual operating cost of 5 compact sedans: 5 sedans x [\$220/month GSA lease rate + \$28.00/vehicle surcharge + (\$0.145/mile x 40 miles/day x 261 days/year)] = \$8,809
 - Annual GHG emissions for the 5 compact sedans (assuming 10440 miles/year/vehicle at 25 MPG): 2088 gallons of gasoline which equates to 18.4 metric tons of CO₂ equivalent (MTCO₂e)
 - Estimated annual fuel reduction: 2,088 gallons of gasoline
 - Estimated annual BTU reduction: 261,000,000 BTU (based on FEMP GHG reporting tool)
 - Cost per 8,000 BTU reduction: \$1.52 / 8000 BTU
 - NOTE: As a rough gauge of the relative merit of energy efficiency budget packages, one criterion HQ USACE will use is the dollar cost per BTU reduction. The specific "target range" USACE would like to reach in terms of \$ invested / BTU reduction is roughly \$1/8000 BTU for sustainability requirements submitted for the Climate Change Mitigation Challenge (CCMC) funds. This target cost is based on Federal government average energy savings results with Energy Savings Performance Contracts (ESPCs).
 - Cost per metric ton of greenhouse gas reduction (MTCO₂e): \$2,717 / MTCO₂e reduced
 - In order for HQ USACE to stay at or below the target range of \$1 / 8000 BTU, the District's *minimum* cost share would be: \$50,000 – [(261,000,000 BTU / 8000 BTU) x \$1.00] = \$17,375
 - For non-tactical vehicle (petroleum reduction) investments, budget packages with lower CCMC dollar costs per BTU reduced will *generally* be more competitive; however, other factors, such as fuel type (gas vs. diesel), that affect GHG emissions will also be factored into the competitive process.
- Facility-level Competitively-selected example requirement: New England District in the USACE North Atlantic Division identifies a requirement to upgrade facility heating and lighting at a large energy-consuming project location. The upgrades include replacing out-dated lighting fixtures, light switches, and thermostats with modern, energy efficient devices. The total cost of these upgrades is \$30,000. The budget package justification includes the following data:
 - Current annual facility electricity consumption and cost: 1.56M KWH at \$0.18/KWH for a total \$281K annual electricity cost
 - Estimated annual electricity reduction: 50,000 KWH at \$0.18/KWH for a total \$9K annual savings on electricity costs (assuming no increases in electricity rates in the out-years)

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- Estimated BTU reduction: 171,000,000 BTU
- Cost per 8000 BTU reduction: $\$30,000 / (171,000,000/8,000) = \$1.40 / 8,000 \text{ BTU}$
- Current annual GHG emissions from electricity consumption at the subject project (based on DoE FEMP GHG reporting tool): 661 MTCO₂e
- Estimated GHG emission reductions resulting from the facility upgrades: 21 MTCO₂e
- Cost per MTCO₂e reduction: $\$1429 / \text{MTCO}_2\text{e reduced}$
- In order for HQ USACE to stay at or below the target cost of \$1 / 8000 BTU for the CCMC funds, the District's *minimum* cost share would be: $\$30,000 - [(171,000,000 \text{ BTU} / 8000 \text{ BTU}) \times \$1.00] = \$8,625$
- Among facility-based electricity efficiency proposals, the more competitive packages would be those with greater KWH reductions *and* greater GHG emissions reductions, as well as lower cost per BTU reduced. Note that GHG emission rates per KWH vary regionally across the US.

ACCOMPLISHMENTS IN PRIOR YEARS: N/A

CRITERIA

PROGRAM NAME: Levee Safety Initiative

AUTHORIZATION: Section 221 of the Flood Control Act of 1970, as amended (84 Stat. 1831, 42 U.S.C. 1962d-5b) and other legislation authorizes the Corps to undertake inspections of completed flood damage reduction (FDR) projects to ensure that non-federal sponsors are complying with written agreements for "items of local cooperation" and determine if the federal investment in the FDR is being maintained. To determine whether the non-federal sponsor is performing as agreed the Corps undertakes Levee Safety Inspections of these completed works. In addition, Title IX of the Water Resources Development Act (WRDA) 2007, cited as the National Levee Safety Act of 2007 (the Act), authorized the development of National Committee on Levee Safety (NCLS) to make recommendations for a national levee safety program, in addition to, performing inventories and inspections of levees in the nation. This legislation complements the existing authorities and appropriations the Corps of Engineers uses to implement the other aspects of the agency Levee Safety Program.

DESCRIPTION: Under the overarching Flood Risk Management Program, USACE created its Levee Safety Program with the mission to assess the integrity and viability of levees and recommend courses of action to make sure that levee systems do not present unacceptable risks to the public, property, and the environment. Under the Levee Safety Program, USACE launched a major effort to create a National Levee Database and develop a methodology for performing technical risk assessments of existing levee infrastructure. Additionally Title IX of WRDA 2007 cited as the National Levee Safety Act of 2007 (the Act), involves development of recommendations for a national levee safety program, in addition to inventory and inspection of levees in the nation. The Levee Safety program, funded through different line items in the O&M account as well as the FCCE account, involves: inspecting completed projects, developing levee inspection and assessment policies, processes, and tools, and developing a national levee database and inventory.

BUDGET AMOUNT FOR FY2011: \$ 15 million (in National Levee Flood Inventory O&M remaining item)

BUDGET FOR FY2012: \$ 50 million

JUSTIFICATION: Levees are abundant and integral to economic development in many communities, including many highly urbanized areas, in the United States. Yet, the total number and location and condition of all the levees in the US are currently unknown and the public often have only a limited understanding of levees and the risks associated with them. USACE has specific authorities to inspect and assess levees, which total about 14,600 miles nationwide. However, there have been estimates that there could actually be up to an additional 100,000 miles of levees nationwide. In 2005, levee failures caused the loss of 1,800 lives and economic damages that are estimated to be over \$200 billion.

ACCOMPLISHMENTS IN PRIOR YEARS: In May 2006, the Corps began the process of building a living, dynamic database, called the National Levee Database (NLD), to house information relative to the status and safety of the nation's levee systems. The database includes all necessary attributes of levees/floodwalls relevant to design, construction, operations, maintenance, repair and inspections. The NLD also includes information from FEMA on levees within the National Flood Insurance Program and flood risk information from the FEMA HAZUS database. To date, 14,600 miles of levees within the Corps Levee Safety Program have been identified and inventoried. In addition to the database, the Corps developed an automated Levee Inspection System tool as part of the NLD. It is a Geographic Information Systems (GIS) / Global Positioning System (GPS) based inspection tool that incorporates the levee inspection checklist and links directly with the NLD.

PROPOSED ACTIVITIES FOR FY2012: In coordination with current related Corps Levee Safety Program activities, the NCLS will begin to 1) further define requirements including engineering policies, procedures, standards, and criteria for a range of levee types and related facilities and features; 2) leverage efforts initiated by the Corps in the area of Tolerable Risk Guidelines, including fostering international partnerships, to outline how this concept could be applied to levees

and levee safety decisions; 3) build upon the Corps' Levee Safety Action Classification process to develop a process to quickly identify and prioritize levee areas with limited information. Additionally, proposed FY2012 activities include expanding the NLD to other federal agencies. Efforts will include coordination with other federal agencies to collect available information on levees not currently within the Corps program. Specific levee safety initiative activities included in the budget under existing authorities that will be undertaken in FY2012 to substantially advance the program objectives include:

- Implementing Recommendations of the National Committee on Levee Safety - begin initial development of tolerable risk guidelines and a hazard potential classification system (\$1 M in National Levee Flood Inventory O&M remaining item).
- National Levee Database - maintain and continue to expand the National Levee Database by collecting information from other Federal agencies (\$20 M in National Levee Flood Inventory O&M remaining item).
- Levee Inspections and Assessments - complete periodic inspections on an additional 125 Federally authorized levees and continue levee screenings (\$25 M in ICW O&M remaining item).
- Silver Jackets Program - expand the Silver Jackets Program into the remaining 20 states (Silver Jackets teams are currently active in 21 states with an additional nine state teams are expected to be established by the end of FY 2011) and implement Shared Vision Planning and the Watershed Investment Decision Tool to support intergovernmental planning activities in watersheds with high risk levees (FCCE - \$4 Million).

Corps of Engineers

FY 2012 Construction Performance Guidelines

To qualify, a project must be authorized for construction; have an approved Chief's report, major rehabilitation report, or Dam Safety modification report; and, where applicable, successfully completed review under Executive Order 12322.

- Project Purpose – Ongoing construction projects, including those funded in the Mississippi River and Tributaries account, are assigned based on their primary purpose to one of the three main mission areas of the Corps (flood and storm damage reduction, commercial navigation, and aquatic ecosystem restoration) or to hydropower.
- Projects funded to address dam safety assurance, seepage control, and static instability correction problems – Projects that are funded for construction to address a dam safety action classification 1 or 2 concern will receive the maximum level of funding that the Corps can efficiently and effectively spend each year.
- Projects funded on the basis of their economic return – Ongoing construction projects that have a benefit-to-cost ratio (BCR) of 2.5 to 1 or higher, calculated at a seven percent discount rate, are eligible for funding. Projects with a BCR below this threshold will not be funded unless they are eligible for funding under other criteria of these guidelines.
- Projects funded on the basis of their environmental return – Ongoing construction projects to restore degraded ecosystem structure, function, and process to a more natural condition are eligible for funding.
- Projects funded to address a significant risk to human safety – Flood and storm damage reduction projects that are funded to address a significant risk to human safety will receive funding to support an uninterrupted effort.
- New starts and resumptions – The start of a priority new construction project, and the resumption of work on a priority construction project, will be eligible for funding.
- Mitigation or environmental requirements – Mitigation work at ongoing construction projects, and work needed to comply with treaties or biological opinions, will be funded to meet those requirements.
- Non-structural flood damage reduction projects – Ongoing non-structural flood damage reduction projects will be eligible for funding if the project has a BCR of 1.0 to 1 or above, at a seven percent discount rate.
- Project completions – Ongoing projects that can complete all remaining construction work during the budget year are funded at the level needed to complete that work if the project has a BCR of 1.0 to 1 or above, at a seven percent discount rate.

Corps of Engineers

FY 2012 Operation and Maintenance (O&M) Performance Guidelines

The Corps uses objective performance-based criteria to allocate operation and maintenance funds to Corps projects. These criteria give priority to key infrastructure and consider the condition of the project and the potential consequences (e.g., economic, environmental, and public safety impacts) for project performance if the O&M activity is not undertaken in the budget year, as well as legal factors. The criteria, with an explanation of how the Corps applies them, are provided below:

- **Project Purpose** – Each proposed O&M activity at all projects that the Corps operates and maintains, including those funded in the Mississippi River and Tributaries account, is assigned to one of six program areas: commercial navigation, flood and storm damage reduction, environment, recreation, hydropower and water supply. For projects with multiple purposes, the separable activities are assigned to the program area that they serve. Joint activities are allocated among all program areas served by the project based upon a project-specific allocation formula.
- **Economic Impacts** – The benefits that will be accrued for the dollars spent to improve the level of service are considered during the evaluation. For O&M funding decisions, an informed judgment is made using performance data to estimate the economic impact of the activity. Those with a higher return on investment receive a higher priority in the budget process. For example, the evaluation for commercial navigation includes the current and five-year average tonnage (coastal) and ton-miles (inland waterways), cost per ton and cost per ton-miles, as well as other factors such as support for commercial fishing or public transportation (passenger ferries). For flood and storm damage reduction, it includes the risk of loss of life or property; for recreation, it includes visitor attendance; and for hydropower, the risk of facility closure.
- **Asset Management** – Reliability of projects is evaluated to determine a project's ability to adequately perform its intended function in a consistent and dependable manner when field conditions allow. Condition classification guidelines are used to determine overall project condition, with component condition assessments performed to evaluate the condition of individual critical components. Consequence rating criteria are used to determine the impact (dollars, lives, etc.) of reduced availability. The results of the condition and consequence evaluations lead to a risk level based on an established matrix for each program area. The risk of not funding the proposed work is evaluated in the budget year in terms of the intended function. Cost-effectiveness measures are used to determine the lowest cost solution to improve the overall reliability of the project.
- **Public Safety** – Public safety is also a factor used in ranking O&M activities. A proposed work package is given greater consideration if its purpose is to reduce the risk of a failure that could result in loss of life. For commercial navigation, other

factors include whether the harbor is a critical harbor of refuge, supports other Federal requirements such as the U.S. Coast Guard search and rescue or national security, or supports a subsistence harbor.

- Environmental Concerns – O&M work to address a significant environmental concern is evaluated based on its environmental return (benefits per funding amount). Those O&M activities that reduce the risk of a significant adverse environmental impact are given a higher consideration for funding.
- Legal Requirements – Projects with O&M-related legal requirements are also given a higher consideration for funding, e.g., projects with requirements to address Indian tribal rights or whose operation involves ongoing mitigation needs.