

Tab 1 – Flood and Coastal Storm Damage Reduction

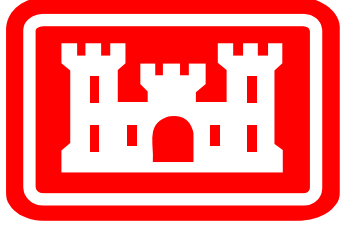
Tab 2 – Hydropower

Tab 3 – Navigation

Tab 4 – Environment

Tab 5 – Operation and Maintenance

Tab 6 – Other Business Programs, Accounts, and Remaining Items



**US Army Corps
of Engineers**

Civil Works
FY 07
Budget
Justification
Information

Book 1

JUSTIFICATION SHEETS

FLOOD AND COASTAL STORM DAMAGE REDUCTION

Flood and Coastal Flood Damage Reduction Table of Contents

Flood and Coastal Storm Damage Reduction	
Program Assessment - Flood Damage Reduction.....	1
Program Assessment - Coastal Storm Damage Reduction	3
Investigations	
Great Lakes and Ohio River Division	5
Davidson County, Mill Creek Watershed, TN	6
Mississippi Valley Division	7
Calcasieu River Basin, LA	8
Hot Springs Creek, Arkansas	9
St. Louis Flood Protection, MO	10
North Atlantic Division	11
New Jersey Shore Protection, Hereford to Cape May Inlet	12
Northwestern Division	13
Cache LaPoudre River Basin, Greeley & Vicinity, Colorado	14
Kansas Citys, Missouri	16
Lower Platte River & Tributaries, Nebraska	18
Topeka, Kansas	20
Wears Creek, Jefferson City Missouri	21
Pacific Ocean Division.....	23
Hagatna River Flood Control, Guam	24
Yakutat FDR, AK	25
South Atlantic Division	26
Edisto Island	27
South Pacific Division.....	28
California Coastal Sediment Master Plan	29
Estudillo Canal	30
Sutter County	31
Upper Penitencia Creek	32
Mississippi River and Tributaries.....	33
Alexandria, LA to the Gulf of Mexico, LA	34
Coldwater River Basin Below Arkabutla Lake, MS	35
Collection and Study of Basic Data	36
Construction	
Great Lakes and Ohio River Division	37
Bluestone Lake, West Virginia (Dam Safety Assurance)	38
Chicago Shoreline, Illinois.....	42

Flood and Coastal Flood Damage Reduction
Table of Contents (Continued)

Des Plaines River, IL	47
Indianapolis, White River (North) Indiana	52
Little Calumet River, Indiana	57
McCook and Thornton Reservoirs, Illinois.....	64
Metropolitan Louisville, Beargrass Creek, KY	71
Metropolitan Region of Cincinnati, Duck Creek, Ohio	76
Metropolitan Louisville, Pond Creek, KY	82
Mill Creek, Ohio	87
Mississinewa Lake, Indiana	92
Rough River Lake, KY	97
Saw Mill Run, Pittsburgh, Pennsylvania	102
Wolf Creek Dam Safety Major Rehabilitation, Kentucky	107
Mississippi River and Tributaries.....	111
Atchafalaya Basin, Louisiana	112
Channel Improvement, Arkansas, Illinois Kentucky, Louisiana, Mississippi, Missouri and Tennessee..	121
Mississippi River Levees, Arkansas, Illinois, Kentucky, Louisiana, Mississippi, Missouri and Tennessee	137
St. Johns Bayou New Madrid Floodway, Missouri	150
Mississippi Valley Division	156
Chain of Rocks Canal, Mississippi River Illinois (Deficiency Correction).....	157
East St. Louis, Illinois.....	162
Grand Forks, North Dakota Eat Grand Forks, Minnesota	168
Sheyenne River, North Dakota	174
North Atlantic Division	184
Atlantic Coast of New York City, Rockaway Inlet to Norton Point, Coney Island, New York.....	185
Barnegat Inlet to Little Egg Harbor Inlet, NJ.....	190
Fire Island Inlet to Montauk Point, NY	194
Molly Ann's Brook, Haledon, Prospect Park and Paterson, NJ	200
Townsend's Inlet to Cape May Inlet, New Jersey	204
Washington DC & Vicinity	210
Wyoming Valley, Pennsylvania.....	215
Northwestern Division	221
Antelope Creek, Lincoln, Nebraska.....	222
Blue River Basin, Kansas City, Missouri	227
Blue River Channel, Kansas City, Missouri	231
Elk Creek Lake, Oregon	235

Flood and Coastal Flood Damage Reduction
Table of Contents (Continued)

Missouri River Levee System, Iowa, Nebraska, Kansas and Missouri	241
Mud Mountain Dam, Washington (Dam Safety and Fish Passage Facilities).....	247
Perry Creek, Iowa	252
Turkey Creek Basin, Kansas City, Kansas and Missouri	257
Tuttle Creek Dam, Kansas	261
South Atlantic Division	265
Arecibo River, Puerto Rico.....	266
Cedar Hammock (Wares Creek) Florida	271
Rio Puerto Nuevo, Puerto Rico.....	275
Roanoke River Upper Basin, Virginia Headwaters Area.....	280
South Pacific Division	286
Acequias Irrigation System, New Mexico	287
Alamogordo, New Mexico.....	291
American River Watershed, California.....	296
Guadalupe River, California	309
Los Angeles County Drainage Area, California.....	315
Napa River, California.....	320
Rio Grande Floodway, San Acacia to Bosque del Apache Unit, New Mexico.....	326
Santa Ana River Mainstem, California.....	331
Sacramento River Bank Protection Project, California	341
South Sacramento County Streams, California	351
Success Dam and Reservoir, Tule River, California	357
Tropicana and Flamingo Washes, Nevada.....	368
Southwestern Division	376
Brays Bayou, Houston, Texas.....	377
Canton Lake, Oklahoma (Dam Safety) (Construction)	387
Clearwater Lake Replacement, Missouri.....	392
Johnson Creek, Upper Trinity Basin, Arlington, Texas.....	396
Sims Bayou, Houston, Texas	401
Operations and Maintenance Summary	406
Continuing Authorities Program.....	406
Section 103.....	407
Section 205.....	408
Section 14.....	411

Flood and Coastal Flood Damage Reduction
Table of Contents (Continued)

Remaining Items	412
Investigations	412
National Inventory of Flood/Storm Damage Reduction Projects	413
National Shoreline	415
Construction	417
Dam Safety and Seepage/Stability Correction Program	418
Operation and Maintenance	419
Earthquake Hazards Reduction Program	420
National Dam Safety Program - Portfolio Risk Assessment	422
Reliability Models Program For Major Rehabilitation	425
Water Operations Technical Support	426



PROGRAM

[View Similar Programs](#)

RATING

[What This Rating Means](#)

PROGRAM ASSESSMENT

Flood Damage Reduction

This program aims to reduce flood damage by constructing levees, floodwalls and other structural and non-structural projects. The Corps of Engineers shares the cost of these projects with states and local communities. The Corps also assists states in floodplain management and maintains large federally owned dams and levees.

NOT PERFORMING

Results Not Demonstrated

- **The program lacks information on how completed flood damage reduction projects help reduce the Nation's overall flood damages on an annual or long-term basis.** The Corps can estimate, however, the economic and environmental return from flood projects under design or construction, and these estimates are used to set funding priorities for the program's budget each year.
- **Greater coordination is needed among this program, FEMA mitigation programs, the National Flood Insurance Program and states and local communities that set floodplain management policies.** The lack of coordination between these entities can result in increased or unaddressed risk to communities in flood hazard areas.
- **The program's state and local partners often do not make citizens sufficiently aware of their actual flood risks by publicizing regional flood plain management plans to reduce the impact of future flood events in the project area.** Anecdotal evidence also indicates that state and local partners may not be properly maintaining completed flood projects to ensure the level of protection over time.

IMPROVEMENT

We are taking the following actions to improve the performance of the

PLAN **program:**

About Improvement Plans

- Collecting performance information on the actual contribution of completed flood damage reduction projects toward reducing the Nation's overall flood damages.
- Conducting two pilot projects to improve coordination among Federal and non-Federal programs involved in reducing flood damages.
- Funding an inventory of the Nation's flood and storm damage reduction infrastructure and development of a methodology for assessing the risk and level of protection provided from completed projects.

LEARN MORE

- **Details and Current Status of this program assessment.**
- How all Federal programs are assessed.
- Learn more about Flood Damage Reduction.



PROGRAM

[View Similar Programs](#)

RATING

[What This Rating Means](#)

IMPROVEMENT PLAN

[About Improvement Plans](#)

PROGRAM ASSESSMENT

Coastal Storm Damage Reduction

The program aims to protect lives and reduce damages resulting from hurricanes and storms. The Army Corps of Engineers partners with coastal communities to share the cost of placing sand on beaches or building structures such as jetties or groins. Most projects involve regular, recurring sand placement for up to 50 years.

NOT PERFORMING

Results Not Demonstrated

- **The program lacks necessary information on its success in reducing damages from hurricanes and storms in communities where the Corps has built projects or placed sand on beaches.** Additional funding may be needed to collect such performance information for completed projects. At this time only anecdotal evidence is available on the program's success.
- **The Administration does not support Federal funding for long-term beach renourishment (for up to 50 years); it supports a scaled back Federal role instead.** The Administration supports Federal funding for the initial placement of sand on beaches after which states and local communities would finance the long-term, periodic beach renourishment.
- **Greater coordination may be needed between the Army Corps of Engineers and other Federal, state and local entities to help prevent unwise future development in coastal communities, including those where the Corps has partnered to provide long-term beach renourishment.**

We are taking the following actions to improve the performance of the program:

- Collecting information on the economic and other benefits from completed projects that have reduced hurricane and storm damages. Additional funding

may be needed for this data collection effort.

- Proposing funds in the budget for the initial sand placement, and long-term renourishment only if it is necessary to mitigate the impacts of operating and maintaining a Federal navigation project.
- Conducting two pilot projects to promote improved coordination among Federal and non-Federal programs that address damages from floods, storms and hurricanes.

LEARN MORE

- **Details and Current Status of this program assessment.**
- How all Federal programs are assessed.
- Learn more about Coastal Storm Damage Reduction.

INVESTIGATIONS

FLOOD AND COASTAL STORM DAMAGE REDUCTION

INVESTIGATIONS

GREAT LAKES AND OHIO RIVER DIVISION

APPROPRIATION TITLE: General Investigations, Fiscal Year 2007

Great Lakes and Ohio River Division

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2004 \$	Allocation FY 2004 \$	Allocation FY 2005 \$	Allocation FY 2006 \$	Tentative Allocation FY 2007 \$	Additional to Complete After FY 2007 \$
Davidson County, Mill Creek Watershed, TN Nashville District	1,178,730	178,000	218,000	265,730	141,000	150,000	226,000

Mill Creek is a major tributary of the Cumberland River in southeastern Davidson County and northwestern Williamson County. The Mill Creek watershed is 108 square miles and home to the federally listed endangered Nashville Crayfish. A recurrence of the May 1979 flood of record would cause an estimated \$93M in flood damages today. Over 1,000 homes and businesses are subject to flooding. Corrective measures evaluated during the reconnaissance study include floodway evacuation combined with wetland restoration and enhancement. These outputs will be further refined during the feasibility phase. The sponsor is the Metropolitan Government of Nashville and Davidson County. The sponsor understands its cost sharing responsibilities and has expressed an interest in cost sharing the feasibility phase, by letter of intent dated March 2001. The Feasibility Cost Sharing Agreement was executed on April 24, 2003.

FY 2006 funds will be used to continue the feasibility study. FY 2007 funds will be used to continue the feasibility phase. The estimated cost of the feasibility phase is \$2,131,460, which is to be shared on a 50-50 basis by Federal and non-Federal interests. A summary of study cost sharing follows:

Total Estimated Study Cost	\$2,244,460
Reconnaissance Phase (Federal)	113,000
Feasibility Phase (Federal)	1,065,730
Feasibility Phase (Non-Federal)	1,065,730

The reconnaissance phase was completed in April 2003. The feasibility study is scheduled for completion in September 2008.

FLOOD AND COASTAL STORM DAMAGE REDUCTION

INVESTIGATIONS

MISSISSIPPI VALLEY DIVISION

APPROPRIATION TITLE: General Investigations, Fiscal Year 2007

Mississippi Valley Division

Project	Total Estimated Federal Cost \$	Allocation To FY 2003 \$	Allocation for FY 2004 \$	Allocation for FY 2005 \$	Allocation for FY 2006 \$	Allocation Requested for FY 2007 \$	Additional to Complete After FY 2007 \$
LOUISIANA							
Calcasieu River Basin, LA New Orleans District	1,200,000	160,000	25,000	76,000	297,000	247,000	395,000

The study area is located in southwestern Louisiana and includes Calcasieu Parish and the City of Lake Charles, Louisiana in Calcasieu Parish. Development in the study area is subject to repetitive flooding particularly in the southwest portion of the Lake Charles area in the southern portion of the Calcasieu Basin. Headwater flooding and backwater flooding from the Calcasieu River is a major problem in the study area. Fish and wildlife habitat has been lost to development in the upper basin and to erosion, subsidence, saltwater intrusion, and development in the estuarine areas of the lower basin. The study will address the feasibility of measures to reduce flooding and restore fish and wildlife habitat in the study area. The Calcasieu Parish Police Jury is the cost-sharing sponsor for the feasibility phase. The feasibility cost sharing agreement was signed on 3 May 2005. The anticipated outputs of flood damage prevention and environmental restoration are in accord with Administration policy.

Fiscal Year 2006 funds are being used to continue two survey contracts and complete hydraulics and hydrology model development.

Funds requested for Fiscal Year 2007 will be used to develop alternative drainage scenarios and advance one recommended plan.

The preliminary estimated cost of the feasibility phase is \$2,000,000 and is being 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	\$2,200,000
Reconnaissance Phase (Federal)	200,000
Feasibility Phase (Federal)	1,000,000
Feasibility Phase (Non-Federal)	1,000,000

The reconnaissance phase was completed in May 2005. The feasibility study completion date is being determined.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2007

Mississippi Valley Division

Study	Total Estimated Federal Cost \$	Allocation To FY 2003 \$	Allocation for FY 2004 \$	Allocation for FY 2005 \$	Allocation for FY 2006 \$	Allocation Requested for FY 2007 \$	Additional to Complete After FY 2007 \$
b. Flood Damage Prevention Studies:							
ARKANSAS							
Hot Springs Creek, Arkansas Vicksburg District	950,000	13,000	33,000	53,000	99,000	200,000	\$552,000

Hot Springs is located in west-central Arkansas about 60 miles southwest of Little Rock. The City of Hot Springs, Arkansas, is drained by Hot Springs, Gulpha, Stokes, and Molly Creeks, with a drainage area of 51 square miles. These creeks fall from 35 to 95 feet per mile and vary in top bank widths from 15 to 120 feet. The central business district lies in a narrow, approximately 300-foot-wide valley through which Hot Springs Creek flows. Flooding along the Hot Springs Creek approaches catastrophic proportions in the central business district where the average rate of rise has reached 8.4 feet per hour and overbank depths have reached 9 feet with velocities of 15 feet per second. Two lives have been lost due to flooding--one during the flood of 15 February 1956 and the second during the flood of 16 July 1963. Estimated damages from each major flood occurring in 1923, 1956, 1963, 1974, 1982, and 1990 range from \$1 to \$1.5 million. The 1963 and 1923 floods reached a depth of 7 and 9 feet, respectively, while the standard project flood would be a flood depth of 12.4 feet. A reconnaissance report was completed in May 1990. The cost-shared feasibility study was terminated when the local sponsor withdrew support on 9 January 1995. By letter dated 6 March 2001, the City of Hot Springs, Arkansas, requested that a reconnaissance study be undertaken to address the flooding problems. The feasibility cost sharing agreement is scheduled to be executed 28 April 2006 with the City of Hot Springs, Arkansas.

Fiscal Year 2006 funds are being used to execute the feasibility cost sharing agreement and initiate the feasibility study (i.e., surveys, mapping, hydrologic and hydraulic modeling, geotechnical studies, coordination with local, state and Federal agencies) to identify alternative plans that will provide flood damage reduction to the City of Hot Springs, Arkansas.

Funds requested for Fiscal Year 2007 will be used to continue formulation and evaluation of alternatives, completion of environmental compliance activities, as well as continued coordination with local, state and Federal agencies.

The preliminary estimated cost of the feasibility phase is \$1,700,000, which is to be shared on a 50-50 percent basis by non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	\$ 1,800,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	850,000
Feasibility Phase (Non-Federal)	850,000

The reconnaissance phase is scheduled for completion April 2006. The feasibility study completion date is being determined.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2007

Mississippi Valley Division

Project	Total Estimated Federal Cost \$	Allocation To FY 2003 \$	Allocation for FY 2004 \$	Allocation for FY 2005 \$	Allocation for FY 2006 \$	Allocation Requested for FY 2007 \$	Additional to Complete After FY 2007 \$
MISSOURI							
St. Louis Flood Protection, MO St. Louis District	1,684,000	645,000	73,000	145,000	302,000	243,000	276,000

The St. Louis Flood Protection project area 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. Approximately 3,160 acres of industrial and commercial development are protected from Mississippi River flooding by the completed St. Louis Flood Protection Project. During the Great Flood of 1993, which was less than the project's design, a short section of the project failed and only quick, extensive emergency actions by the City of St. Louis, Metropolitan St. Louis Sewer District, and Corps of Engineers prevented a large portion of the City of St. Louis from flooding. Significant potential problems identified with the project during 1993 included under seepage, foundation piping, pipe crossings, inadequate toe drains and inadequate relief wells. Based on the Reconnaissance Report dated February 1999, preconstruction engineering and design was resumed and a final cost-shared Reconstruction Evaluation Report was completed in July 2005. The reevaluation shows that the original project design did not include adequate closure structures and underseepage protection. The recommended project, estimated to cost \$15,615,000 (Federal \$10,150,000 and non-Federal \$5,465,000), includes installing 20 closure structures, permanently closing gates at 13 closure structures, installing 70 new relief wells, and replacing 103 existing relief wells needed to improve underseepage control. The average annual benefits amount to \$5,863,000, all flood control. The benefit-cost ratio is 5.30 to 1 at 7 percent and 4.84 at 5.625 percent (November 2003 price level). The local sponsor, City of St. Louis, understands and is ready to sign a design agreement and have funds available to finance the PED portion of the design of a project. 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	\$2,245,000	Total Estimated Preconstruction Engineering and Design Costs	\$2,245,000
Initial Federal Share	1,684,000	Ultimate Federal Share	1,459,000
Initial Non-Federal Share	561,000	Ultimate Non-Federal Share	786,000

The project is authorized for construction by Public Law 84-256, 9 August 1955. Cost sharing will be 65 percent Federal and 35 percent non-Federal in accordance with current Administration policy.

Fiscal Year 2006 funds are being utilized to continue plans and specifications for the relief wells.

Funds requested in Fiscal Year 2007 will be used to continue plans and specifications for the relief wells. Completion of preconstruction engineering and design is being determined.

FLOOD AND COASTAL STORM DAMAGE REDUCTION
INVESTIGATIONS
NORTH ATLANTIC DIVISION

APPROPRIATION TITLE: Investigations, Fiscal Year 2007

North Atlantic Division

Study	Total Estimated Federal Cost \$	Allocation Thru FY 2003 \$	Allocation FY 2004 \$	Allocation FY 2005 \$	Allocation FY 2006 \$	Tentative Allocation FY 2007 \$	Additional to Complete After FY 2007 \$
New Jersey Shore Protection, Hereford to Cape May Inlet Philadelphia District	1,265,000	161,977	38,000	365,000	396,000	200,000	104,023

The study area is located in Cape May County along New Jersey's last coastal barrier island between Hereford Inlet and Cape May Inlet. This area includes the City of North Wildwood, Wildwood City, Wildwood Crest Borough and a small section of Lower Township. Coastal storms and tidal surges cause major damages to businesses, residences, and small marinas in these towns due to the low-lying topography of the beaches and lack of a dune system. In addition, sand accretion in Wildwood & Wildwood Crest has caused safety hazards & increased the maintenance required to keep the outfall pipe system clear of sediment. Along the southern end of the barrier island this accretion has also increased the dredging requirements for the Cape May Inlet Federal navigation channel utilized by the U.S. Coast Guard Receiving Center. The September 1990 study for the New Jersey Shore recognized Federal interest to proceed to further feasibility level studies for potential shoreline protection projects along the Atlantic coast of New Jersey, which included the Hereford Inlet to Cape May Inlet area.

The feasibility phase will evaluate alternatives for hurricane and storm damage reduction measures, including sand bypassing measures. In addition, the feasibility study is evaluating opportunities for ecosystem restoration. The feasibility Cost-Sharing agreement was executed in September 2002 with the New Jersey Department of Environmental Protection.

Fiscal Year 2005 funds were used to continue the feasibility phase, which includes development of the Project Management Plan and Study Delivery Team, initiate plan formulation and data collection.

Fiscal Year 2006 funds are being used to continue the feasibility phase of the study, including; without project conditions, data collection, coordination with local interests and plan formulation.

The funds requested for Fiscal Year 2007 will be used to continue the feasibility study, which include preparation of a draft feasibility report and finalization of data collection. 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	\$2,515,000
Reconnaissance Phase (Federal)	\$ 15,000
Feasibility Phase (Federal)	\$1,250,000
Feasibility Phase (Non-Federal)	\$1,250,000

The reconnaissance phase was completed in September 2002. The feasibility study completion is to be determined.

6 February 2006

FLOOD AND COASTAL STORM DAMAGE REDUCTION

INVESTIGATIONS

NORTHWESTERN DIVISION

FLOOD and COASTAL STORM DAMAGE REDUCTION, Fiscal Year 2007
 General Investigations

NORTHWEST DIVISION

Study	Total Estimated Federal Cost \$	Allocations Thru FY 2003 \$	Allocation FY 2004 \$	Allocation FY 2005 \$	Allocation FY 2006 \$	Tentative Allocation FY 2007 \$	Additional to Complete After FY 2007 \$
COLORADO							
Cache La Poudre River Basin, Greeley & Vicinity, Colorado Omaha District	1,014,000	28,000	102,000	92,000	149,000	304,000	339,000

The Cache La Poudre River is a left bank tributary to the South Platte River with headwaters in the Rocky Mountain National Park. The Cache La Poudre River basin, which drains 1,890 square miles and includes the City of Greeley, is subject to severe flooding caused by intense rainfall from localized thunderstorms in May through September. The potential for floods is also increased from May through July due to rapid snowmelt from the Rocky Mountains. The City of Greeley has experienced fifteen major floods over the past 100 years, most recently in 1999 and 1983. The 100-year discharge is 10,800 cfs at Greeley. The 1983 discharge was recorded at 8,200 cfs, however, the 1904 flood event discharge was estimated to be 18,000 cfs. Based upon a 1992 Section 205 report for the 2.7 mile reach of river through the City of Greeley, there were 245 residential and 131 commercial structures in the 100-year flood plain with a corresponding flood damage estimate of \$6,131,000. The expected annual damages for the studied area is \$725,600, based upon the 1992 report. No studies have been conducted recently to determine the estimated current value of structures and contents affected along this portion of the Cache La Poudre River or the estimated annual flood damages, however, the proposed study is intended to estimate these parameters. The City has incurred considerable expense over the last 20 years in replacing six bridges, which were constructed to pass the 100 year flood event, however, there are no existing flood control structures in the Greeley reach, leaving the City vulnerable to continued flooding. Another major concern in the basin is the degradation of habitat in the riparian corridor. As stated in a letter from the Colorado Department of Natural Resources, biologists describe the Cache La Poudre River that flows through Greeley as low elevation Cottonwood-Willow Riparian Habitat. This ecosystem provides the most important wildlife habitat in Colorado in terms of species diversity and abundance. The reach of the Cache La Poudre through Greeley has been designated as critical wildlife habitat by the Colorado Division of Wildlife, and is an indicator of the significance of the lower Cache La Poudre as key wildlife habitat. Low elevation riparian corridors are also among the most disturbed by humans, and the river as it flows through Greeley is a prime example of the impacts to low elevation river bottoms. Channelization, gravel mining, wetland destruction, water quality issues, and many other human influences have had a major impact on the quality of riparian habitat along the Cache La Poudre River and the wildlife dependent on this waterway.

The major goals of the study and subsequent project(s) would be to reduce the potential for property damage to existing development in the flood plain, reduce injuries and deaths caused by river flooding, and to restore riparian habitat in the river corridor. The Cache La Poudre River Floodway Improvement Program has been established by the City of Greeley to explore ways to protect property owners and adjacent areas from Cache La Poudre River flooding and to develop improved environmental habitat and recreational opportunities along the river corridor.

FLOOD and COASTAL STORM DAMAGE REDUCTION, Fiscal Year 2007
 General Investigations

NORTHWEST DIVISION

Study	Total Estimated Federal Cost \$	Allocations Thru FY 2003 \$	Allocation FY 2004 \$	Allocation FY 2005 \$	Allocation FY 2006 \$	Tentative Allocation FY 2007 \$	Additional to Complete After FY 2007 \$
-------	--	--------------------------------------	-----------------------------	-----------------------------	-----------------------------	--	--

CACHE LA POUFRE RIVER BASIN (Continued)

In addition, flood protection would be of value to property owners who are currently participating in the FEMA Flood Insurance Program by reducing or eliminating the yearly insurance premiums.

The study area includes the flood plain from the confluence of the South Platte River, upstream approximately 17 miles (which includes the City of Greeley). A seven mile reach in the City will be the focus of flood damage reduction efforts. Solutions to alleviate flooding may include, channel improvements, acquiring floodway corridor areas, creating over-bank open space flood areas, and other measures. The report will also include recommendations to improve the riparian habitat along the river corridor and the recreational opportunities. It is anticipated that the project Benefit Cost Ratio (BCR) will be 1.35. The City of Greeley provided a letter of intent on 28 May 2002. There is support for this project from Senator Ken Salazar, Senator Wayne Allard, and Representative Marilyn Musgrave (CO-4). Other state and local agencies that have indicated a commitment are the town of Eaton, Colorado Department of Transportation, Colorado Division of Wildlife, City of Evans, Greeley Urban Renewal Authority, and the Poudre River Trail Corridor. There is also widespread support from commercial and residential property owners in the study reach.

The Fiscal Year 2006 funds are being used to continue the feasibility study (determine problems and opportunities for flood damage reduction and ecosystem restoration; inventory existing conditions; data collection; and forecast future without project conditions).

The funds requested for Fiscal Year 2007 will be used to continue the feasibility phase (formulate alternative plans with sponsor and local community; evaluate favored plans to determine NED and best ecosystem plans; and explore opportunity for integrating project with community recreation plan).

The reconnaissance study was completed in April 2004 and was submitted to NWD for certification in July 2005, following scope and budget negotiations. The FCSA was executed in December 2005. The preliminary cost of the feasibility phase is \$1,560,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. 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	\$1,794,000
Reconnaissance Phase (Federal)	234,000
Feasibility Phase (Federal)	780,000
Feasibility Phase (Non-Federal)	780,000

The feasibility study schedule for completion is to be determined.

FLOOD and COASTAL STORM DAMAGE REDUCTION, Fiscal Year 2007
 General Investigations

NORTHWEST DIVISION

Study	Total Estimated Federal Cost \$	Allocations Thru FY 2003 \$	Allocation FY 2004 \$	Allocation FY 2005 \$	Allocation FY 2006 \$	Tentative Allocation FY 2007 \$	Additional to Complete After FY 2007 \$
MISSOURI							
Kansas Citys, Missouri Kansas City District	4,850,000	2,518,000	516,000	464,000	495,000	500,000	357,000

Currently the feasibility study and decision documentation for this project are organized into two phases, Phase I and Phase II. PED and Construction activities will be phased accordingly. The Phase I decision document will include the units with work that can be performed sooner. This will allow us to start PED and construction on Phase I earlier than if we try to develop one report for the entire system. Phase I milestones will be about 2 years in advance of Phase II. Construction contract periods will depend upon the work required. FY06 feasibility products will include the draft and final Phase 1 feasibility report. FY07 will see the phase 2 feasibility activities well underway.

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 and protect a combined investment estimated at over \$12 billion. 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. Nearly 4,800 significant structures and roughly \$12 billion of investment are protected. 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 located at the confluence of the Missouri and Kansas Rivers due to fear of levee failure. The project has prevented approximately \$8.5 billion in damages through 1996, of which \$3.9 billion was prevented in 1993 alone.

The ongoing Feasibility study is conducted under the authority of Sec 216 of the 1970 Flood Control Act for review of existing civil works. There is broad local and Congressional support for this study. 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.

FLOOD and COASTAL STORM DAMAGE REDUCTION, Fiscal Year 2007
 General Investigations

Northwestern Division

Study	Total Estimated Federal Cost \$	Allocation Prior thru FY 2003 \$	Allocation FY 2004 \$	Allocation FY 2005 \$	Allocation FY 2006 \$	Tentative Allocation FY 2007 \$	Additional to Complete After FY 2007 \$
-------	--	---	-----------------------------	-----------------------------	-----------------------------	--	--

MISSOURI (Continued)

Kansas Citys (Continued)

FY 2006 funds will be used to complete the feasibility study for Phase I and continue the feasibility study for Phase II.

The funds for FY 2007 will be used to continue work on the Phase II feasibility report.

The estimated cost of the feasibility phase is \$8,000,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. 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	\$ 8,850,000
Reconnaissance Phase (Federal)	850,000
Feasibility Phase (Federal)	4,000,000
Feasibility Phase (Non-Federal)	4,000,000

The Phase I feasibility study is scheduled for completion in June 2006. The schedule for completion of the Phase II feasibility study is to be determined. Phase I project will move into PED in FY 2007.

FLOOD and COASTAL STORM DAMAGE REDUCTION, Fiscal Year 2007
 General Investigations

Northwestern Division

Study	Total Estimated Federal Cost \$	Allocation Prior thru FY 2003 \$	Allocation FY 2004 \$	Allocation FY 2005 \$	Allocation FY 2006 \$	Tentative Allocation FY 2007 \$	Additional to Complete After FY 2007 \$
NEBRASKA							
Lower Platte River & Tributaries, Nebraska Omaha District	3,171,000	2,586,000	109,000	157,000	59,000	130,000	130,000

The authorized study area is in the eastern third of the state of Nebraska. The area includes the Lower Platte River from just below the confluence with the Wood River to the confluence with the Missouri River, the Loup River from Fullerton to the confluence with the Lower Platte, Salt Creek from above Lincoln to the confluence with the Lower Platte, and the Elkhorn River from Norfolk to the confluence with the Lower Platte. There are two major and seven minor tributaries to the Platte River in the study reach, 27 communities, and several environmentally sensitive areas yielding a complex study. This area, about 750 square miles, with over 6,000 square miles of contributing area, is subject to frequent, severe flooding that causes estimated annual damages of nearly \$14 million. Existing projects prevent about \$6 million a year in damages. Significant flooding occurred 7-21 March 1993, forcing the evacuation of 1,400 people from their homes. The flood killed two people and devastated road and bridge systems, public and private utilities, and farm equipment and facilities. Interstate 80 near Lincoln was closed for more than 24 hours. The water system for the city of Lincoln was seriously damaged; and there was damage in the towns of Norfolk, West Point, Scribner, Winslow, Nickerson, Arlington, Waterloo, Fullerton, Columbus, Schuyler, and Cedar Creek. Damages totaled over \$25 million. The declared disaster area included 14 counties. All damages occurred outside of the 13 existing flood protection projects in the basin. These projects prevented over \$18 million in damages for this event alone, and prevented an additional \$10 million in damages from the summer 1993 flooding.

The completed reconnaissance study reviewed hydrology of the Lower Platte River, including contributions from the Elkhorn and Loup Rivers; reexamined flood and related erosion and sedimentation damages, and formulated feasible alternative solutions. The Reconnaissance Report was completed in May 1996, recommending proceeding into the feasibility phase. The feasibility study was initiated with the signing of the Feasibility Cost Sharing Agreement in January 1998. Concurrence was received from HQUSACE to develop a scope of work that merges the Section 503 of WRDA 96, "Lower Platte River watershed, Nebraska," with this study. Section 503 provides authority for technical, planning, and design assistance to non-Federal interests for carrying out watershed management, restoration, and development projects.

The State of Nebraska, the Nebraska Natural Resources Commission (NNRC), the Lower Platte South Natural Resources District (NRD), Pappio-Missouri River NRD, and the Lower Platte North NRD are the cost sharing partners for the feasibility study and any resulting projects. The sponsors have provided \$1,322,000 in cash and \$1,000,000 in in-kind services through Fiscal Year 2005.

The FY06 funds are being used to continue the feasibility study (compile six separate historical mapping layers into a web-based Geographical Information System which will be the basis for many resource polygons, i.e., roads, wetlands, forests, grassland, homestead, etc.).

The funds requested for Fiscal Year 2007 will be used to complete the feasibility study (trend analysis and cumulative impact study).

FLOOD and COASTAL STORM DAMAGE REDUCTION, Fiscal Year 2007
 General Investigations

Northwestern Division

Study	Total Estimated Federal Cost \$	Allocation Prior thru FY 2003 \$	Allocation FY 2004 \$	Allocation FY 2005 \$	Allocation FY 2006 \$	Tentative Allocation FY 2007 \$	Additional to Complete After FY 2007 \$
-------	--	---	-----------------------------	-----------------------------	-----------------------------	--	--

NEBRASKA

Lower Platte River & Tributaries, Nebraska (Continued)

The preliminary estimated cost of the feasibility phase is \$5,030,000, which is to be shared on a 50/50 percent basis by Federal and non-Federal interests. 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	\$5,686,000
Reconnaissance Phase (Federal)	656,000
Feasibility Phase (Federal)	2,515,000
Feasibility Phase (Non-Federal)	2,515,000

The reconnaissance phase was completed in January 1998. The feasibility study schedule for completion is to be determined.

FLOOD and COASTAL STORM DAMAGE REDUCTION, Fiscal Year 2007
: General Investigations

Northwestern Division

Study	Total Estimated Federal Cost \$	Allocation Prior thru FY 2003 \$	Allocation FY 2004 \$	Allocation FY 2005 \$	Allocation FY 2006 \$	Tentative Allocation FY 2007 \$	Additional to Complete After FY 2007 \$
MISSOURI (Continues)							
Topeka, Kansas Kansas City District	1,875,000	0	0	0	0	100,000	1,775,000

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 will be completed in FY 2006 and initiate PED.

The recommended project to increase the reliability of the levee system is estimated to cost \$15.0 million, with an estimated Federal cost of \$9.75 million and an estimated non-Federal cost of \$5.25 million. The average annual benefits amount to \$8.0 million, all for flood control. The benefit-cost ratio is 1.62 based upon the latest economic analysis dated Sept 1997. The City of Topeka and the North Topeka Drainage District are the sponsors for the project. Latest evidence of sponsor support is the execution of the Feasibility Cost Sharing Agreement, which was signed in July 1998. The sponsor has assured that they understand and are ready to sign a design agreement and have 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 1996.

The funds requested for FY 2006 will be used to conduct an Alternative Formulation Briefing, and prepare a Feasibility Report.

The funds requested for FY 2007 will be used to close the feasibility phase, execute a Project Cooperation Agreement, and initiate PED.

Total Estimated Preconstruction Engineering and Design Costs	\$2,500,000	Total Estimated Preconstruction Engineering and Design Costs	\$2,500,000
Initial Federal Share	1,875,000	Ultimate Federal Share	1,625,000
Initial Non-Federal Share	625,000	Ultimate Non-Federal Share	875,000

FLOOD and COASTAL STORM DAMAGE REDUCTION, Fiscal Year 2007
: General Investigations

Northwestern Division

Study	Total Estimated Federal Cost \$	Allocation Prior thru FY 2003 \$	Allocation FY 2004 \$	Allocation FY 2005 \$	Allocation FY 2006 \$	Tentative Allocation FY 2007 \$	Additional to Complete After FY 2007 \$
MISSOURI (Continued)							
Wears Creek, Jefferson City, Missouri Kansas City District	536,000	100,000	65,782	10,000	74,000	150,000	136,218

Jefferson City, Missouri, the State capital, is vulnerable to flooding in the Wears Creek flood plain. Wears Creek flows into the right bank of the Missouri River through downtown Jefferson City. Flood vulnerable development includes two large state office buildings, a state health laboratory, commercial hotel development, and other structures that are part of the State Capitol complex. New Missouri River hydrology documents an increased stage-frequency relationship compared to previously adopted water surface elevations. The risk to the development is now greater than previously realized. The risk of flooding is complicated and exacerbated by the combined flood risk of the Missouri River and the Wears Creek tributary. The conditions in the developed and undeveloped areas in the Wears Creek basin now present an opportunity for flood damage reduction coincident with environmental restoration in an urban setting. Application of modern risk and uncertainty analytical techniques in the Feasibility phase of study would integrate the data emerging on Missouri River hydrology to characterize the current flood risk to downtown Jefferson City.

The flood of record in Jefferson City was the flood of 1993, which produced damages on both banks of the river estimated at more than \$15 million. This estimate is limited to certain damage categories and does not include a significant amount of damages to infrastructure and facilities. The City of Jefferson expressed interest in evaluating the flood risk in the Wears Creek downtown area by letter dated June 2, 1999. A 905(b) reconnaissance level analysis was submitted to HQUSACE in June 2003 and was approved on August 19, 2003. The submittal package included a letter from the Mayor of Jefferson City formally expressing the City's intent to participate in cost-sharing for a feasibility study. The feasibility phase is scheduled to begin following the signing of the FCSA in July of 2006.

The 2006 Fiscal Year funds are being used to initiate the cost-shared feasibility study. With funds available we will initiate cost shared study for data gathering, basin hydrology and hydraulics, preliminary environmental and flood control plans, and preliminary economic data gathering.

The 2007 Fiscal Year funds are being used to continue the feasibility study. We will complete public and agency coordination, and initiate plan formulation.

FLOOD and COASTAL STORM DAMAGE REDUCTION, Fiscal Year 2007
: General Investigations

Northwestern Division

Study	Total Estimated Federal Cost \$	Allocation Prior thru FY 2003 \$	Allocation FY 2004 \$	Allocation FY 2005 \$	Allocation FY 2006 \$	Tentative Allocation FY 2007 \$	Additional to Complete After FY 2007 \$
-------	--	---	-----------------------------	-----------------------------	-----------------------------	--	--

MISSOURI (Continued)

Wears Creek, Jefferson City, Missouri (Continued)

The preliminary estimated cost of the feasibility phase is \$700,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. 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	\$ 886,000
Reconnaissance Phase (Federal)	186,000
Feasibility Phase (Federal)	350,000
Feasibility Phase (Non-Federal)	350,000

The Feasibility study schedule for completion is to be determined.

**FLOOD AND COASTAL STORM DAMAGE REDUCTION
INVESTIGATIONS
PACIFIC OCEAN DIVISION**

APPROPRIATION TITLE: General Investigations, Fiscal Year 2007

Pacific Ocean Division

Study	Total Estimated Federal Cost \$	Allocation Thru FY 2003 \$	Allocation FY 2004 \$	Allocation FY 2005 \$	Allocation FY 2006 \$	Tentative Allocation FY 2007 \$	Additional to Complete After FY 2007 \$
Hagatna River Flood Control, Guam Honolulu District	900,000	68,000	0	119,000	0	100,000	613,000

The Territory of Guam is located approximately 3,800 miles west of Honolulu. The Hagatna River drainage basin is situated on the west-central section of the island. The drainage basin is bordered by plateau lands of northern Guam to the east and northeast; the Pago River basin to the south; coastal lowlands to the north; and sloping mountainous lands of the southwest. The basin is drained by the Agana River, which flows northerly through the downtown area of Agana, the political, commercial and economic center for Guam. Flood damages in the Hagatna River drainage basin result from inadequate channel capacity and flat topography. The flood of record occurred in May 1976 with estimated damages of \$4,000,000. Presently, there are more than 440 structures in the Hagatna River floodplain. Previous investigations completed before 1989 demonstrated that a flood control project, providing a 100-year level of protection, could reduce average annual flood damages by more than \$730,000. The area to be protected comprises about 215 acres with a total estimated value of more than \$145,000,000 for land and improvements. A letter was received in May 2001 from the Government of Guam requesting the Corps assistance in reinvestigating the feasibility of the Hagatna River flood control project. The project was authorized under the Water Resources Development Act of 1986 (PL 99-662) as Agana River, but since that time, the project was subject to deauthorization. The Government of Guam was not in a position to implement the project at that time. Since then, conditions have changed allowing the Government of Guam to make this project a higher priority. Reinvestigation needs to first identify if there is continued Federal interest and issues associated with the project. The local sponsor fully understands the cost-sharing requirements of the study and is fully committed to active participation with the Corps of Engineers.

Funds to initiate the reconnaissance study was provided by the Fiscal Year 2003 Consolidated Appropriations Resolution (P.L. 108-7). Authority to conduct this study is provided under Section 444 of the 1996 Water Resources Development Act (P.L. 104-303), as amended. The 905(b) report was approved by HQ in April 2004. The feasibility cost sharing agreement (FCSA) was executed in August 2005.

Fiscal Year 2006 funds will be used to initiate feasibility phase studies upon receipt of local sponsor funds.

Fiscal Year 2007 funds will be used to continue the feasibility study to include agency scoping meeting; perform topographic survey; and initiate hydrologic and environmental studies. The total estimated cost of the feasibility phase is \$1,200,000, to be shared on a 50-50 percent basis by Federal and non-Federal interests. Section 1156 of P.L. 99-662 provides for a waiver of local cost-sharing requirements up to \$200,000. A summary of cost sharing is as follows:

Total Estimated Study Cost	\$1,300,000	
Reconnaissance Phase (Federal)	100,000	
Feasibility Phase (Federal)	800,000	
Feasibility Phase (Non-Federal)	400,000	(Reflects \$200,000 waiver under Sec 1156 of PL 99-662)

The scheduled completion date of the feasibility study is to be determined.

**ILLUSTRATION A-2.2
COST-SHARED FEASIBILITY STUDY**

APPROPRIATION TITLE: General Investigations, Fiscal Year 2007

Pacific Ocean Division

Study	Total Estimated Federal Cost \$	Allocation Thru FY 2003 \$	Allocation FY 2004 \$	Allocation FY 2005 \$	Allocation FY 2006 \$	Tentative Allocation FY 2007 \$	Additional to Complete After FY 2007 \$
Yakutat FDR, AK Alaska District	2,370,000	0	75,000	548,000	297,000	300,000	1,150,000

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 purpose of the reconnaissance phase study is to determine if there is a Federal interest in participating in a cost shared feasibility phase 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. In response to the study authority, the reconnaissance study was initiated in February of 2004. Likely sponsors for this study include the City and Borough of Yakutat and the Alaska Department of Transportation and Public Facilities. Likely 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.

Fiscal Year 2006 funds are being used to complete the reconnaissance phase. An Interagency Agreement with the U.S. Forest Service is being developed to allow the Forest Service to obtain field data using Corps capability.

Fiscal Year 2007 funds will be used to initiate a watershed feasibility study. The financial magnitude of the cost-shared feasibility study and any possible constructed alternatives are prohibitive to a small community such as Yakutat as well as State agencies. Continuation of the study to the feasibility phase may be dependent upon full Federal funding. The community and the State have requested the work be continued under Section 117 authority.

Total Estimated Study Cost	\$4,370,000
Reconnaissance Phase (Federal)	370,000
Feasibility Phase (Federal)	2,000,000
Feasibility Phase (Local)	2,000,000

The completion date of the feasibility study is to be determined.

FLOOD AND COASTAL STORM DAMAGE REDUCTION
INVESTIGATIONS
SOUTH ATLANTIC DIVISION

APPROPRIATION TITLE: General Investigations, Fiscal Year 2007
 Division: South Atlantic Division

Study/Project	Total Estimated Federal Cost \$	Allocation Through FY 2003 \$	Allocation FY 2004 \$	Allocation FY 2005 \$	Allocation FY 2006 \$	Tentative Allocation FY 2007 \$	Additional To Complete After FY 2007 \$
Edisto Island Charleston District	850,000	0	59,000	18,000	23,000	100,000	650,000

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. The reconnaissance study report completed in August 2004 recommended that a Federal interest exists to proceed to a cost-shared feasibility study. 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 potential cost-sharing partner and understands the cost-sharing requirements of the feasibility phase, as indicated by their Letter of Intent dated 25 June 2004.

Fiscal Year 2006 funds are being used to complete the reconnaissance phase of the study at full Federal expense to include negotiation and execution of the Feasibility Cost Sharing Agreement in July 2006.

Fiscal Year 2007 funds will be used to initiate the feasibility phase of the study. Activities will consist of coordination with Resource Agencies and preliminary plan scoping and formulation. The preliminary estimated cost of the feasibility phase is \$1,500,000, which is to be 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	\$1,600,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	750,000
Feasibility Phase (Non-Federal)	750,000

The reconnaissance phase is scheduled for completion in July 2006. The feasibility study completion date is to be determined.

6 February 2006

FLOOD AND COASTAL STORM DAMAGE REDUCTION
INVESTIGATIONS
SOUTH PACIFIC DIVISION

ILLUSTRATION A-2.2
COST-SHARED FEASIBILITY STUDY

APPROPRIATION TITLE: General Investigations, Fiscal Year 2007

South Pacific Division

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2004 \$	Allocation FY 2004 \$	Allocation FY 2005 \$	Allocation FY 2006 \$	Tentative Allocation FY 2007 \$	Additional to Complete After FY 2007 \$
California Coastal Sediment Master Plan Los Angeles District	7,100,000	65,000	122,000	29,000	594,000	300,000	5,990,000

The study area encompasses the entire California coastline, including the nearshore ocean environment and the coastal watersheds. 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.

Total Estimated Study Cost	\$14,000,000
Reconnaissance Phase (Federal)	200,000
Feasibility Phase (Federal)	6,900,000
Feasibility Phase (Non-Federal)	6,900,000

Fiscal Year 2006 funds are being used to continue the feasibility phase of the study, to include inventory and map existing resources, conduct geotechnical field investigations, develop a comprehensive GIS database, develop GIS based decision support applications, and hold State-wide multiple public scoping meetings.

Funds requested for Fiscal Year 2007 will be used to continue the feasibility phase of the study, develop web-based mapping system, continue building GIS database and decision support applications, conduct geotechnical field investigations for sediment sources, develop sediment transportation network analysis tool and incorporate state-lead efforts and analysis started in Fiscal Year 2006. The completion date is to be determined for the feasibility study.

6 February 2006

ILLUSTRATION A-2.2
COST-SHARED FEASIBILITY STUDY

APPROPRIATION TITLE: General Investigations, Fiscal Year 2007

South Pacific Division

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2004 \$	Allocation FY 2004 \$	Allocation FY 2005 \$	Allocation FY 2006 \$	Tentative Allocation FY 2007 \$	Additional to Complete After FY 2007 \$
Estudillo Canal San Francisco District	1,861,000	18,000	29,000	46,000	743,000	600,000	425,000

The study area is located in Alameda County, within the city limits of San Leandro, California about 15 miles southeast of San Francisco. The watershed drains into the San Francisco Bay and has a drainage area of approximately 10 square miles. The watershed is located in San Leandro, California and the majority of the watershed is developed. A substantial number of parcels within a densely populated area of the watershed are designated as being in a FEMA floodplain. An independently completed hydrology study indicates that preliminary cost estimates for necessary improvements to protect these parcels may total more than \$20 million. The Alameda County Flood Control and Water Conservation District, the local sponsor, signed the Feasibility Cost Sharing Agreement in September 2005.

Fiscal Year 2006 funds are being used to continue the feasibility phase of the study to include defining without project conditions, identifying problems and opportunities and defining planning objectives.

The funds requested for Fiscal Year 2007 will be used to continue the feasibility phase of the study to include identifying feasible measures to combine as project alternatives and defining the with project conditions.

The estimated cost of the feasibility phase is \$3,540,000, 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	\$3,631,000
Reconnaissance Phase (Federal)	91,000
Feasibility Phase (Federal)	1,770,000
Feasibility Phase (Non-Federal)	1,770,000

The reconnaissance phase was completed in September 2005. The feasibility study completion date is to be determined.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2007

South Pacific Division

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2004 \$	Allocation FY 2004 \$	Allocation FY 2005 \$	Allocation FY 2006 \$	Tentative Allocation FY 2007 \$	Additional to Complete After FY 2007 \$
Sutter County Sacramento District	2,708,000	773,000	206,000	198,000	357,000	339,000	835,000

The study area is located within the boundaries of the Sacramento River Flood Control Project in Sutter County, California and includes the Sacramento, Feather and Bear Rivers, Sutter and Tisdale Bypass, Yuba City and communities of Live Oak, Meridian, Robbins and Nicolaus. 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. As a result of the January 1997 floods, high water caused seepage and boils, and a levee break occurred threatening the town of Meridian. In addition, seepage and boils were identified on the south levee of the Tisdale Bypass. The levee was stabilized constructing a stability berm under emergency construction authority. The State of California and Sutter County, the local sponsors, signed the Feasibility Cost Sharing Agreement in March 2000.

Fiscal Year 2006 funds are being used to continue the feasibility phase of the study, to include development of alternatives and review of geotechnical explorations performed by the non-Federal sponsor. Funds requested for Fiscal Year 2007 will be used to conduct plan formulation of an array of alternatives and select the Nationally Economic Development plan and the Locally Preferred Plan. The estimated cost of the feasibility phase is \$5,300,000, 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	\$5,358,000
Reconnaissance Phase (Federal)	58,000
Feasibility Phase (Federal)	2,650,000
Feasibility Phase (Non-Federal)	2,650,000

The reconnaissance phase was completed in March 2000. The feasibility study completion date is to be determined.

ILLUSTRATION A-2.2
COST-SHARED FEASIBILITY STUDY

APPROPRIATION TITLE: General Investigations, Fiscal Year 2007

South Pacific Division

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2004 \$	Allocation FY 2004 \$	Allocation FY 2005 \$	Allocation FY 2006 \$	Tentative Allocation FY 2007 \$	Additional to Complete After FY 2007 \$
Upper Penitencia Creek San Francisco District	3,198,000	1,539,000	469,000	166,000	705,000	319,000	0

The study area, extending along 3.6 miles of Upper Penitencia Creek and its watershed, is located in the northwest portion of Santa Clara County, California, adjacent to the city of San Jose. Flooding has occurred in the watershed from Upper Penitencia Creek flows in 1955, 1958, 1962, 1963, 1973, 1980, 1982 and 1983. The 1982 flood, an approximate 10-year event, resulted in over \$2 million in damages. The flood plain contains approximately 1,600 properties that are subject to flood damage. It is estimated that a 100-year flood event would cause \$2.9 billion 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 Corps of Engineers was requested by the local sponsor to continue the effort. The improvements proposed by the Soil Conservation Service include flood proofing, new levees, floodwalls, bypass channels, channel realignment, grade stabilization and vegetative work in order to provide a 100-year level of flood protection. The reconnaissance study provided a review of the Soil Conservation Service study 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 2006 funds are being used to continue the feasibility phase of the study to include completion of draft civil design, endangered species coordination and reports, and preparation of the benefit cost ratio for the National Economic Development and Locally Preferred Plans.

Funds requested for Fiscal Year 2007 will be used to complete the feasibility phase of the study to include finalizing the feasibility report including the environmental documentation and coordination.

The estimated cost of the feasibility phase is \$5,706,000, 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	\$6,051,000
Reconnaissance Phase (Federal)	345,000
Feasibility Phase (Federal)	2,853,000
Feasibility Phase (Non-Federal)	2,853,000

The reconnaissance phase was completed in February 1998. The feasibility study is scheduled for completion in September 2007.

6 February 2006

FLOOD AND COASTAL STORM DAMAGE REDUCTION
INVESTIGATIONS
MISSISSIPPI RIVER AND TRIBUTARIES

APPROPRIATION TITLE: Flood Control, Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO, and TN - General Investigations, Fiscal Year 2007

Study	Total Estimated Federal Cost \$	Allocation To FY 2003 \$	Allocation for FY 2004 \$	Allocation for FY 2005 \$	Allocation for FY 2006 \$	Allocation Requested for FY 2007 \$	Additional to Complete After FY 2007 \$
2. SURVEYS – CONTINUING:							
LOUISIANA							
Alexandria, LA, to the Gulf of Mexico, LA New Orleans District	2,050,000	215,432	155,000	366,000	928,000	200,000	185,568

The study area is located in south-central Louisiana and encompasses an area of about 1,700 square miles extending through nine parishes from Alexandria, Louisiana, to the Gulf of Mexico. The area is the drainage basin for the West Atchafalaya Basin Floodway Levee intercepted drainage system, a feature of the Mississippi River and Tributaries project, that prevents overflow from the Atchafalaya Basin Floodway and intercepts flows from the areas major outlets. The largest urban area in the study area is Alexandria, which has experienced numerous floods in its metropolitan area. There have been extensive flooding problems in the Alexandria area and widespread flooding throughout the basin in the more rural and agricultural areas. Since 1953 there have been fifteen significant storm events with rainfall ranging from 5.4 to 18 inches in the study area. The local sponsor is the Louisiana Department of Transportation and Development and the Rapides Parish Gravity Drainage District No. 1. The sponsors have requested that flooding problems in the Alexandria, Louisiana area be addressed in the feasibility study. The feasibility cost sharing agreement was executed 14 April 2003 and amended 3 May 2004 to include LADOTD's signature.

The reconnaissance phase was completed in June 1999. The feasibility study completion is scheduled for 2008.

Fiscal Year 2006 funds are being used to inventory existing environmental and economic conditions and forecast future conditions. An initial cultural resources investigation will be conducted. Topographic data collection will be completed. H&H modeling of the existing conditions and all alternatives will be completed. Evaluation of the alternatives will be performed.

Funds requested for Fiscal Year 2007 will be used to identify the tentatively selected plan. An alternative formulation briefing will be conducted with MVD and HQ. A refined engineering design and cost estimate will be developed for the recommended plan. A preliminary integrated feasibility report (including all technical appendices) and EIS will be drafted and reviewed internally. The preliminary document will be revised and released for a NEPA 45-day public and agency review.

A summary of the cost estimate break down is provided below:

Total Estimated Study Cost	\$3,900,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	1,950,000
Feasibility Phase (Non-Federal)	1,950,000

APPROPRIATION TITLE: Flood Control, Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO, and TN - General Investigations, Fiscal Year 2007

Study	Total Estimated Federal Cost \$	Allocation To FY 2003 \$	Allocation for FY 2004 \$	Allocation for FY 2005 \$	Allocation for FY 2006 \$	Allocation Requested for FY 2007 \$	Additional to Complete After FY 2007 \$
-------	------------------------------------	-----------------------------	------------------------------	------------------------------	------------------------------	--	--

c. Shoreline Protection Studies: None.

d. Special Studies: None.

e. Ecosystem Restoration Studies: The amount of \$300,000 is required to continue one feasibility studies.

MISSISSIPPI

Coldwater River Basin Below Arkabutla Lake, MS Vicksburg District	2,119,000	224,000	372,000	328,000	470,000	300,000	425,000
---	-----------	---------	---------	---------	---------	---------	---------

The study area is located in northwest Mississippi approximately 30 miles south of Memphis, Tennessee. Increased development has created adverse impacts on area streams in meeting water quality standards while maintaining flood damage reduction goals. The Yazoo Mississippi Delta Joint Water Management District in conjunction with Tunica County, Mississippi, has requested assistance in identifying measures to improve water management, water quality, flood control, and the wetland ecosystem throughout this watershed. The sponsors desire specific projects and guidelines for future development that will improve flood protection and the aquatic environment and conserve water resources. Projects will also be designed to prevent increases in downstream stages outside the study area. The sponsors are the Yazoo Mississippi Delta Joint Water Management District and Tunica County Soil and Water Conservation District. The feasibility cost sharing agreement was executed 18 June 2003.

Fiscal Year 2006 funds are being used to complete analyses of fish and associated aquatic habitats, complete hydrologic and hydraulic modeling for without-project conditions, complete environmental and economic base condition analyses, initiate alternative plan formulation and continue coordination with local, state, and Federal agencies for watershed optimization.

Funds requested for Fiscal Year 2007 will be used to continue hydrologic and hydraulic modeling for future without-project and with-project watershed conditions, continue alternative plan formulation, initiate engineering and design for alternative plans and continue coordination with local, state, and Federal agencies for watershed optimization.

The estimated cost of the feasibility phase is \$3,924,000, which is to be 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	\$4,081,000
Reconnaissance Phase (Federal)	157,000
Feasibility Phase (Federal)	1,962,000
Feasibility Phase (Non-Federal)	1,962,000

The reconnaissance phase was completed in June 2003. The feasibility study completion date is being determined.

APPROPRIATION TITLE: Flood Control, Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO, and TN - General Investigations, Fiscal Year 2007

Study	Total Estimated Federal Cost \$	Allocation To FY 2003 \$	Allocation for FY 2004 \$	Allocation for FY 2005 \$	Allocation for FY 2006 \$	Allocation Requested for FY 2007 \$	Additional to Complete After FY 2007 \$
g. Collection and Study of Basic Data	N/A	N/A	632,000	535,000	673,000	400,000	N/A

Surveys, Gages, and Observations.

Fiscal Year 2006 funds will be used for 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 for which funds have not been appropriated. The data to be collected will consist of information on stream flow, rainfall, floods, and other items of related hydrologic nature.

Funds requested for Fiscal Year 2007 are for 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 for which funds have not been appropriated. The data to be collected will consist of information on stream flow, rainfall, floods, and other items of related hydrologic nature.

CONSTRUCTION

FLOOD AND COASTAL STORM DAMAGE REDUCTION

CONSTRUCTION

GREAT LAKES AND OHIO RIVER DIVISION

APPROPRIATION TITLE: Construction General – (Dam Safety Assurance)

PROJECT: Bluestone Lake, West Virginia (Dam Safety Assurance) (Continuing)

LOCATION: The dam is located in southern West Virginia, in Summers County, on the New River two miles south of Hinton, West Virginia. 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: The dam modifications include stability improvements such as installation of post tensioning high strength steel anchors, and construction of mass concrete thrust blocks at the downstream face of the dam. The height of the dam will be raised by 8 feet and an additional monolith constructed at the east abutment to prevent overtopping of the existing dam and safely accommodate the probable maximum flood. A floodgate closure will be constructed across a state highway at the west abutment. The existing hydropower penstocks will be extended and retrofitted with gates to supplement the discharge capacity of the spillway and outlet works. All work is programmed.

AUTHORIZATION: Executive Order of the President 7183-A, September 12, 1935; Flood Control Acts of 1936 and 1938.

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable

TOTAL BENEFIT-COST RATIO: Not applicable.

BASIS OF BENEFIT-COST RATIO: Not applicable.

SUMMARIZED FINANCIAL DATA:

Original Project

Actual Federal Cost	\$ 28,618,100
Actual Non-Federal Cost	0
Total Original Project Cost	\$ 28,618,100

Division: Great Lakes & Ohio River

District: Huntington

Bluestone Lake, WV
(Dam Safety Assurance)

6 February 2006

SUMMARIZED FINANCIAL DATA: (continued)

Project Modification		STATUS (1 Jan 2006)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	\$ 220,000,000	Project Modification	30	To Be Determined
Estimated Non-Federal Cost	0			
Total Estimated Modification Cost	\$ 220,000,000			
Total Estimated Project Cost	\$ 248,610,100			

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; relocate electrical lines.

ACCUM
PCT OF EST
FED COST

Allocations to 30 September 2003	\$ 31,282,090	
Allocations for FY 2004	4,236,000	
Allocations for FY 2005	8,997,370	
Conference Allowance for FY 2006	21,500,000	
Allocation for FY 2006	21,284,219 1/	
Allocations through FY 2006	65,799,679	30
Allocation Requested for FY 2007	15,200,000	37
Programmed Balance to Complete after FY 2007	139,000,321	
Unprogrammed Balance to Complete after FY 2007	0	

1/ Reflects \$215,000 rescinded in accordance with the Department of Defense, Emergency Supplemental Appropriations to Address Hurricanes in the Gulf of Mexico, and Pandemic Influenza Act, 2006, P.L. 109-148; and \$781.46 reprogrammed from the project.

JUSTIFICATION: The probable maximum flood is estimated to overtop the existing dam by 8 feet. Evaluations to date indicate the dam is in imminent danger of failure at pool levels below the top of dam. Dam failure would cause catastrophic flooding along the Greenbrier, New, Gauley, Kanawha, and Elk Rivers, including the metropolitan area and heavily industrialized capital city of Charleston, West Virginia. This is a serious public safety concern, with more than 115,000 persons at risk. Property damage would exceed \$6.5 billion. Average annual benefits, all flood control, are \$70,749,000.

Division: Great Lakes & Ohio River

District: Huntington

Bluestone Lake, WV
(Dam Safety Assurance)

6 February 2006

FISCAL YEAR 2006: The amount provided will be applied as follows:

Continue Construction of Dam Modifications	\$ 18,940,000
Continue Planning, Engineering and Design	910,000
Continue Construction Management	1,434,000
Total	\$ 21,284,000

FISCAL YEAR 2007: The requested amount will be applied as follows:

Continue Construction of Dam Modifications	\$ 9,991,000
Continue Planning, Engineering and Design	4,491,000
Continue Construction Management	718,000
Total	\$ 15,200,000

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

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$ 220,000,000 is an increase of \$6,000,000 from the latest estimate (\$214,000,000) presented to Congress (FY 2006). This change includes the following items.

Item	Amount
Price Escalation on Construction Features	\$ 2,328,000
Design Changes	1,183,000
Post Contract Award and Other Estimating Adjustments	2,489,000
Total	\$ 6,000,000

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

OTHER INFORMATION: The Bluestone Dam, West Virginia, Final Evaluation Report and Environmental Impact Statement were approved August 13, 1998.

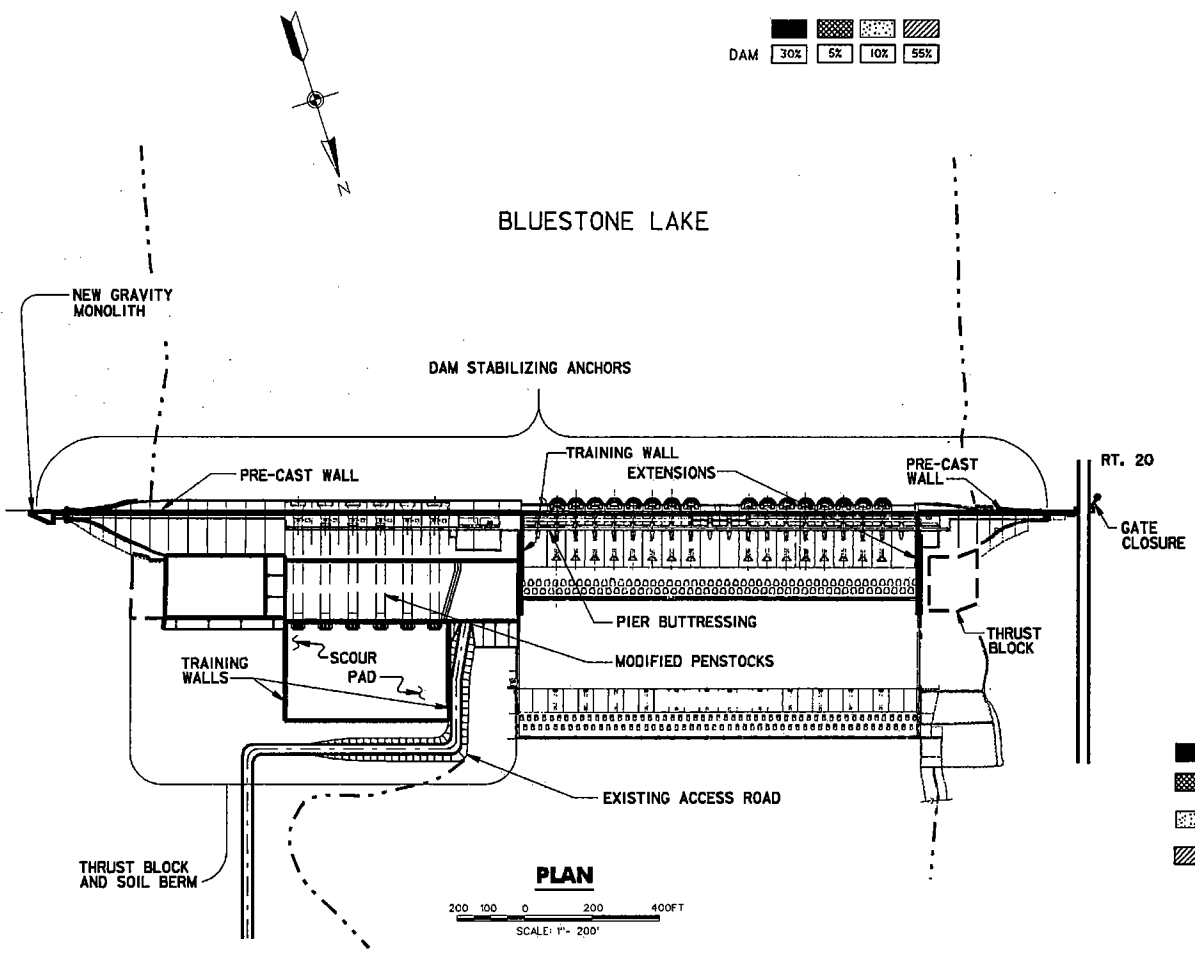
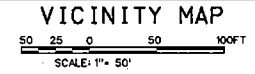
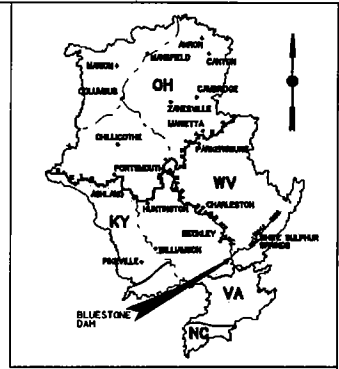
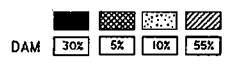
The scheduled completion date is the same as the latest presented to Congress (FY 2006), "To Be Determined."

Division: Great Lakes & Ohio River

District: Huntington

Bluestone Lake, WV
(Dam Safety Assurance)

6 February 2006



STATUS OF WORK

- WORK COMPLETED
- WORK UNDERWAY WITH FUNDS AVAILABLE FOR F.Y. 2006
- WORK PROPOSED WITH FUNDS REQUESTED FOR F.Y. 2007
- WORK REQUIRED TO COMPLETE THE PROJECT AFTER F.Y. 2007

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

6 FEBRUARY 2006

PM from

APPROPRIATION TITLE: Construction, General – Shoreline Protection

PROJECT: Chicago Shoreline, Illinois (Continuing)

LOCATION: The project is located in northeast Illinois on the southern shore of Lake Michigan within the City of Chicago in Cook County.

DESCRIPTION: The project consists of constructing shoreline protection structures along 9.2 miles of the shoreline. Other project features include: revetments near the Adler Planetarium; a breakwater to protect the South Water Purification Plant near 78th Street; and beach nourishment of two short reaches of shoreline near Fullerton Avenue and at 31st Street.

AUTHORIZATION: Water Resources Development Act of 1996, and Water Resources Development Act of 1999.

REMAINING BENEFIT - REMAINING COST RATIO: 8.5 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 4.5 to 1 at 7 percent.

INITIAL BENEFIT-COST RATIO: 5.5 to 1 at 7 3/4 percent (1997).

BASIS OF BENEFIT COST RATIO: Benefits are from the latest available evaluation approved in March 1998, at October 1999 price levels.

SUMMARIZED FINANCIAL DATA		STATUS: (1 JAN 2006)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	\$174,000,000	Entire Project	79%	To Be Determined
Estimated Non-Federal Cost	126,000,000			
Cash Contributions	126,000,000			
Other Costs	0			
Total Estimated Project Cost	\$300,000,000			
			PHYSICAL DATA	
		Step Stone Revetment	44,208 feet	
		Breakwater Reconstruction	2,670 feet	
		Beach Replenishment	2,000 feet	

Division: Great Lakes & Ohio River

District: Chicago

Chicago Shoreline, IL

6 February 2006

SUMMARIZED FINANCIAL DATA (Continued):

		ACCUM PCT. OF EST FED COST
Allocations to 30 September 2003	\$112,392,000	
Allocations for FY 2004	\$19,812,000	
Allocations for FY 2005	\$11,551,000	
Conference Allowance for FY 2006	20,000,000	
Allocation for FY 2006	19,800,000 1/	
Allocations through FY 2006	163,555,000	94
Allocation Requested for FY 2007	10,000,000	99
Programmed Balance to Complete After FY 2007	445,000	
Unprogrammed Balance to Complete after FY 2007	0	

1/ / Reflects \$200,000 rescinded in accordance with the Department of Defense, Emergency Supplemental Appropriations to Address Hurricanes in the Gulf of Mexico, and Pandemic Influenza Act, 2006, P.L. 109-148.

JUSTIFICATION: The project area includes 9.2 miles of the 28 miles of publicly owned shoreline within the City of Chicago. The adjacent land mass and transportation network are protected by continuous revetments and seawalls, most of which were built in the early 1900's. Those constructed of wood pilings and stone cribs have begun to fail. As the land behind the structures is lost due to storms, the high capacity road network which runs parallel to the shoreline will be impacted. These roads carry an estimated 192,000 vehicles per day. Re-routing this traffic will cause serious disruption and significant traffic delay damages. In addition, facilities located on public property, with a capital investment of several billion dollars, will be destroyed. Over the past several years, significant degradation of the existing shore structures has occurred. Large sections of revetment have collapsed as a result of medium duration and intensity storm events. The rate of degradation is increasing, and short-term changes in sections are easily recognizable. The purification plant breakwater had collapsed to the point where gaps in the structure were visible. The breakwater protects the South Water Purification Plant, which services 2.5 million persons.

Average annual benefits are as follows:

Annual Benefits	Amount
Storm Damage Prevention	45,735,000
Recreation	27,718,000
Total	\$ 73,453,000

Division: Great Lakes & Ohio River

District: Chicago

Chicago Shoreline, IL

6 February 2006

FISCAL YEAR 2006: The current amount is being applied as follows:

Construct 40 th to 41 st Street	8,400,000
Construct Belmont to Diversey South Stage 1	8,100,000
Construct Belmont to Diversey South Stage 2	1,000,000
Engineering and Design	900,000
Construction Management	1,400,000
TOTAL	\$19,800,000

FISCAL YEAR 2007: The requested amount will be applied as follows:

Complete 40 th to 41 st Street	6,000,000
Complete Belmont to Diversey South Stage 2	3,200,000
Engineering and Design	100,000
Construction Management	700,000
TOTAL	\$10,000,000

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	Payment During Construction and Reimbursements	Annual Operation, Maintenance, Repair Rehabilitation, and Replacement Costs
Pay 35 percent of the costs allocated to hurricane and storm damage reduction for the Federally supportable plan as reduced for credit allowed for non-Federal work under Section 215 of the Flood Control Act of 1968 and/or Section 206 of the Water Resources Development Act of 1992, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of hurricane and storm damage reduction facilities	94,100,000	500,000
Pay all the incremental costs of the locally preferred plan over the Federally supportable plan as reduced for credit allowed for non-Federal work under Section 215 of the Flood Control Act of 1968 and/or Section 206 of the Water Resources Development Act of 1992.	31,900,000	
Total Non-Federal Costs	\$126,000,000	\$ 500,000
Division: Great Lakes & Ohio River	District: Chicago	Chicago Shoreline, IL

6 February 2006

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

STATUS OF LOCAL COOPERATION: The City of Chicago and the Chicago Park District are the local sponsors for the project. The reimbursement agreement for protection of the filtration plant (Reach 5) was executed on April 28, 1997. A Project Cooperation Agreement encompassing 31st Street to 33rd Street, 1,000 feet of protection at Belmont Avenue, and beach stabilization at 31st Street was executed 7 August 1998. The Project Cooperation Agreement for the remainder of the project was executed on May 17, 1999. The Chicago Park District currently owns all lands required for the project. The non-Federal cost estimate of \$126,000,000 is the non-Federal cash contribution as noted in the PCA. The non-Federal sponsor is financially capable and willing to contribute the non-Federal share.

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal cost estimate of \$174,000,000 is the same as the latest estimate (\$174,000,000) presented to Congress (FY 2006).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: One Environmental Assessment (EA) for entire project was signed on July 3, 1993, and another EA, for additional land at Reach 4, 51st to 54th Street was signed on June 25, 1999. EA was completed for Belmont to Diversey in 2002. A supplemental EA for the 40th-41st Street reach was signed in June 2005.

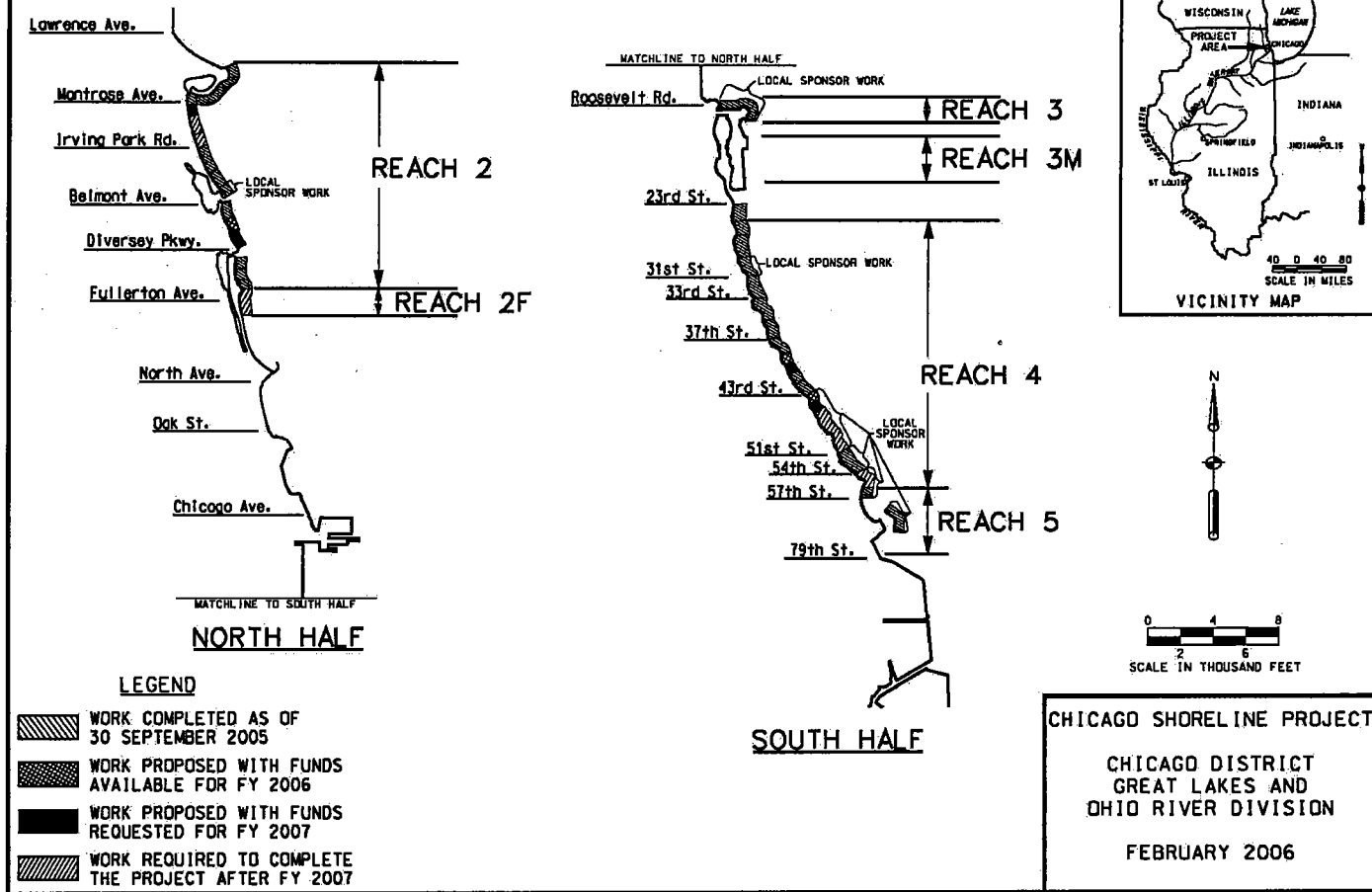
OTHER INFORMATION: Funds to initiate PED were appropriated in FY 1992. Funds to initiate construction were appropriated in FY 1997. The project authorization provides for reimbursement for the Federal share of construction work performed by the non-Federal sponsor in Reach 5. WRDA 1999 authorized credit for work that was performed at Reach 3, Solidarity Drive, prior to execution of the Project Cooperation Agreement.

The Federal plan includes rubblemound revetments along 9.2 miles of publicly owned lakefront shoreline. The locally preferred plan substitutes steel sheet pile, and concrete step-stone revetments for the rubblemound revetments. The non-Federal sponsor will pay the incremental costs of the locally preferred plan.

The scheduled completion date is the same as the latest presented to Congress (FY 2006), "To Be Determined".

CORPS OF ENGINEERS

U. S. ARMY



6 February 2006

APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: Des Plaines River, IL

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

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

AUTHORIZATION: Water Resources Development Act of 1999 (Public Law 106-53).

REMAINING BENEFIT-REMAINING COST RATIO: 1.8 to 1 at 7 percent. (Entire project)
3.1 to 1 at 7 percent. (Levee 37)

TOTAL BENEFIT-COST RATIO: 1.5 to 1 at 7 percent. (Entire project)
1.9 to 1 at 7 percent. (Levee 37)

Initial BENEFIT-COST RATIO: 1.6 to 1 at 6 5/8 percent. (Entire project)
3.0 to 1 at 6 5/8 percent (Levee 37)

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 2006 Entire Project	PERCENT COMPLETE 12	PHYSICAL COMPLETION SCHEDULE To be Determined
Estimated Federal Cost	\$41,470,000			
Estimated Non-Federal Cost	22,300,000			
Cash Contributions	3,188,000			
Other Costs	19,112,000			
Total Estimated Project Cost	\$63,770,000			
		PHYSICAL DATA		
		Levees and Floodwalls		2 Miles
		Reservoirs		1,063 Acre Feet
		Dam		500 Acre Feet
		Storage Areas		412 Acre Feet
		ACCUM. PCT. OF EST.		

SUMMARIZED FINANCIAL DATA (CONTINUED)		FED. COST
Allocations to 30 September 2003	\$ 1,285,000	
Allocations to 30 September 2004	309,000	
Allocations to 30 September 2005	1,367,000	
Conference Allowance for FY 2006	3,750,000	
Allocation for FY 2006	3,712,500 1/	
Allocations through FY 2006	6,673,500	16
Allocation Requested for FY 2007	6,000,000	31
Programmed Balance to Complete After FY 2007	28,796,500	
Unprogrammed Balance to Complete after FY 2007	0	

1/ Reflects \$37,500 rescinded in accordance with the Department of Defense, Emergency Supplemental Appropriations to Address Hurricanes in the Gulf of Mexico, and Pandemic Influenza Act, 2006, P.L. 109-148.

JUSTIFICATION: The Des Plaines River has a long history of frequent floods, which cause significant economic losses throughout the Chicago metropolitan area. The flood of record in September 1986 inflicted an estimated \$35 million in damage to 10,000 dwellings and 263 business and industrial sites, closure of Interstate 94 and severely disrupted the entire Chicago metropolitan area transportation network -- air, rail, and road. Over 15,000 residents were evacuated from the flooded area. Portions of the watershed are among the most rapidly developing in the Chicago metro area; while other portions already exhibit the highest population density of the area. Governor of Illinois declared Lake and Cook Counties area of Des Plaines watershed a disaster area during May 2004 flooding. This flood caused estimated damages of \$2-\$3 Million. Flooding caused evacuation of residents and numerous road closings for over a week. Locals built a sandbag levee around the proposed location of Levee 37 to minimize flooding of residents and roads. Average annual flood damage prevention benefits estimated at \$6,001,000 for the entire Des Plaines River, IL project.

Fiscal Year 2006: The amount will be applied as follows:

Construct Palatine Road Levee	\$ 880,000
Construct Levee 37	2,000,000
Engineering and Design	770,000
Construction Management	62,500
Total	\$3,712,500

FISCAL YEAR 2007: The requested amount will be applied as follows:

Construct Levee 37	\$5,400,000
Engineering and Design	200,000
Construction Management	400,000
Total	\$6,000,000

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.	\$ 8,412,000	
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.	10,700,000	
Pay 6 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.	3,188,000	\$273,200
Total Non-Federal Costs	\$22,300,000	\$273,200

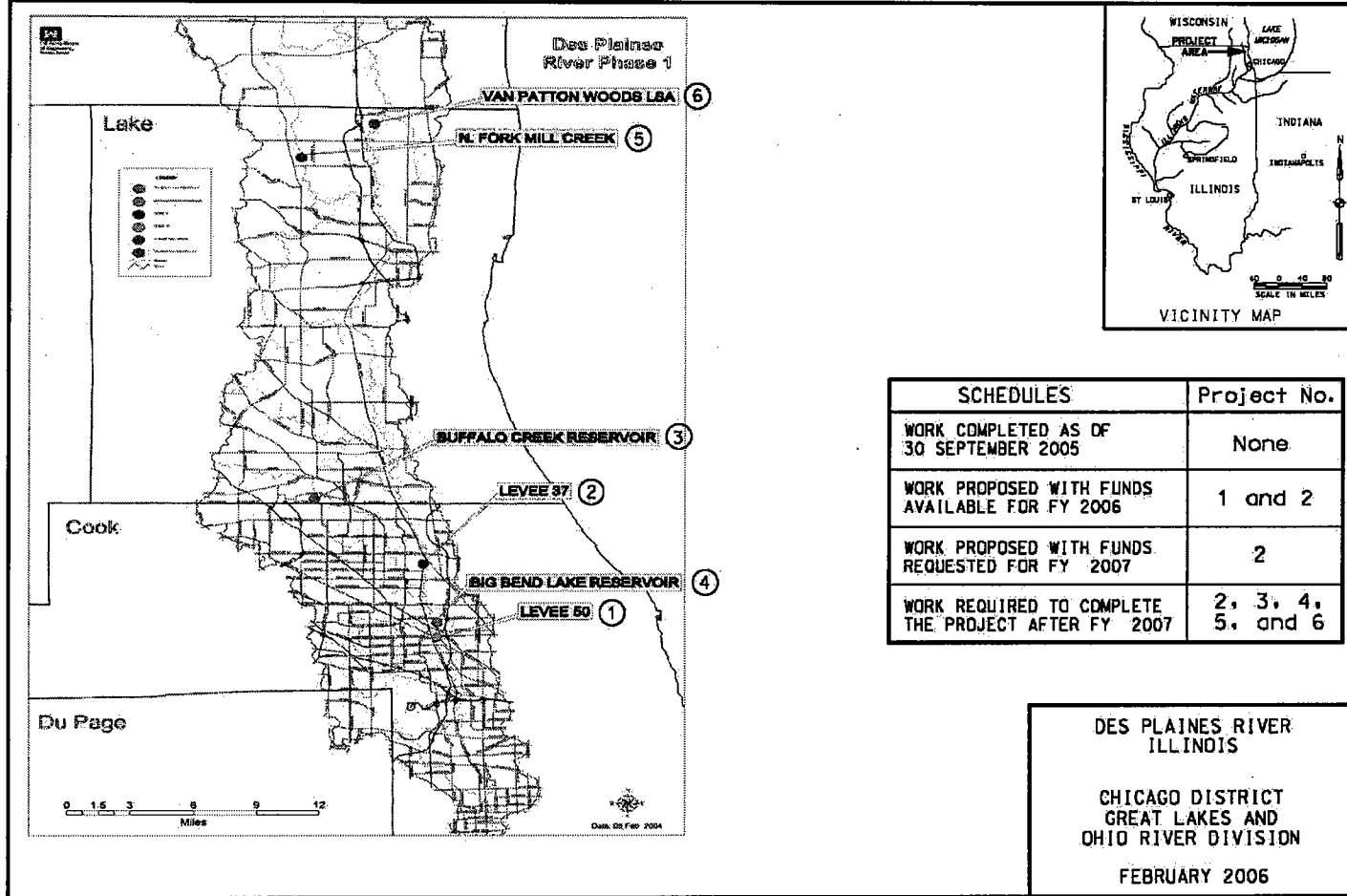
The non-Federal sponsor has agreed to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: The State of Illinois is the local sponsor for the project. The Project Cooperation Agreement (PCA) is scheduled to be executed in FY 2006. The non-Federal sponsor is financially capable and willing to contribute the non-Federal share. The local sponsor has received an approval for Section 104, with potential credits in the amount of \$ 8,960,000.

COMPARISON OF FEDERAL COST ESTIMATE: The Federal cost estimate of \$41,470,000 is the initial estimate presented to Congress.

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.

OTHER INFORMATION: Funds to initiate PED were appropriated in FY 1998. Section 104 credits were approved by HQ on 5 June 99. Local sponsor initiated and completed construction of gates in FY99 and awarded a pump station contract in June 2003 that was completed in FY 2005. The local sponsor is scheduled to award construction contract of the final phase of Levee 50 in FY 2006.



SCHEDULES	Project No.
WORK COMPLETED AS OF 30 SEPTEMBER 2005	None
WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2006	1 and 2
WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2007	2
WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2007	2, 3, 4, 5, and 6

DES PLAINES RIVER
ILLINOIS

CHICAGO DISTRICT
GREAT LAKES AND
OHIO RIVER DIVISION

FEBRUARY 2006

Despl.DGN

6 February 2006

APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: Indianapolis, White River (North), Indiana (Continuing)

LOCATION: The project encompasses approximately 3.0 miles of the White River in the City of Indianapolis, Indiana.

DESCRIPTION: The recommended plan consists of a combination of floodwall and levee flood protection along approximately 3.0 miles of the east bank of the White River in Indianapolis. The project will be constructed in three phases. The first phase consists of the rehabilitation of an existing pump station and the development of a flood warning plan and system. The second phase will consist of 2 mitigation sites totaling 37 acres of reforestation and mitigation. The third phase will consist of the construction of 19,150 feet of sheetpile floodwall with concrete facing and 1,220 feet of earthen levee. This phase will be constructed in sections as three individual contracts.

AUTHORIZATION: Flood Control Act of 1936 as amended by the Flood Control Act of 1938, and subject to cost sharing provisions of the Water Resources Development Act of 1986.

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

TOTAL BENEFIT-COST RATIO: 1.5 to 1 at 7 percent

INITIAL BENEFIT-COST RATIO: 2.42 to 1 at 7 1/8 percent

BASIS OF BENEFIT-COST RATIO: A Benefit Evaluation conducted in May 1997 at October 1995 price levels.

SUMMARIZED FINANCIAL DATA		STATUS (1 Jan 2006)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	\$ 19,412,000	Phase 1	100	Mar 2004
		Phase 2	35	Sep 2007
Estimated Non-Federal Cost	6,472,000	Phase 3A	100	Jul 2004
Cash Contribution	5,209,000	Phase 3B	5	Sep 2009
Other Costs	1,263,000	Phase 3C	10	Sep 2008
		Entire Project	45	To Be Determined
Total Estimated Project Cost	\$ 25,884,000			

Division: Great Lakes & Ohio River

District: Louisville

Indianapolis, White River (North), IN

6 February 2006

SUMMARIZED FINANCIAL DATA (Continued)

		ACCUM. PCT OF EST. FED. COST	PHYSICAL DATA			
Allocations to 30 September 2003	\$6,899,000					
Allocations for FY 2004	1,470,000					
Allocations for FY 2005	642,000		Pump Station Rehab (Phase I)	1	Floodwall (Phase III-A)	7,600 ft.
Conference Allowance for FY 2006	3,200,000		Flood Warning System (Phase I)	1	Levees (Phase III-A)	530 ft.
Allocation for FY 2006	3,168,000 1/		Mitigation Sites (Phase II)	2	Floodwall (Phase III-B)	6,650 ft.
Allocations through FY 2006	12,179,000	63	Floodwall (Phase III-C)	4,900 ft.	Levees (Phase III-B)	690 ft.
Allocation Requested for FY 2007	2,787,000	77				
Programmed Balance to Complete after FY 2007	4,446,000	100				
Unprogrammed Balance to Complete after FY 2007	\$ 0					

1/ Reflects \$32,000 rescinded in accordance with the Department of Defense, Emergency Supplemental Appropriations to Address Hurricanes in the Gulf of Mexico, and Pandemic Influenza Act, 2006, P.L. 109-148.

JUSTIFICATION: Urban expansion in Hamilton County to the north and Hancock County to the east is impacting hydrologic characteristics of the urbanized watersheds in Marion County. The flooding of January 1991 forced evacuation of 500 to 600 homes and damaged many more. Roadways were flooded causing severe damage and loss of access; and several serious injuries were reported. Based on current data, a 100-year annual flood event would cause damages of \$57,930,000 (1995 price levels) in the Warleigh area. The recommended plan reduces average annual flood damages by 90 percent in the Warleigh area and provides a 286-year level of protection.

Average annual benefits at 7 percent are as follows:

Annual Benefits	Amount
Flood Control	\$ 2,898,000
Flood Insurance	49,000
Total	\$ 2,947,000

Division: Great Lakes & Ohio River

District: Louisville

Indianapolis, White River (North), IN

6 February 2006

FISCAL YEAR 2006: The allocated amount will be applied as follows:

Complete Warfleigh Pump Station Contract	\$ 17,000
Construct of Floodwall/Levee	2,396,000
Planning, Engineering, and Design	520,000
Construction Management	235,000
Total	\$ 3,168,000

FISCAL YEAR 2007: The requested amount will be applied as follows:

Environmental Mitigation	\$ 141,000
Construct Floodwall/Levee	2,057,000
Planning, Engineering, and Design	239,000
Construction Management	350,000
Total	\$ 2,787,000

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.

	Payments During Const/Reimb	Annual OMRR&R Costs
Requirements of Local Cooperation		
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas.	\$ 1,227,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	36,000	
Pay approximately 20 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, replacement, and rehabilitation of flood control facilities.	5,209,000	\$ 21,000
Total Non-Federal Costs	\$ 6,472,000	\$ 21,000

The non-Federal sponsor will be required to make all payments concurrently with project construction.

Division: Great Lakes & Ohio River

District: Louisville

Indianapolis, White River (North), IN

6 February 2006

Floodplain Management Requirement.

A flood warning preparedness plan will provide significant benefit to the project area and will continue to be developed in close cooperation with City officials. In addition, the sponsor will be required to participate in and comply with applicable Federal Floodplain Management and Flood Insurance Programs in accordance with Section 402 of Public Law 99-662 as amended by Section 202(c) of Public Law 104-303. Finally, the sponsor will be required to publicize floodplain information in the area concerned and provide this information to zoning and other regulatory agencies for their use in preventing unwise future development in the flood plain and in adopting such regulations as may be necessary to prevent unwise future development and to ensure compatibility with protection levels provided by the project. The sponsor has an active flood plain management plan in place through the Indiana Department of Natural Resources.

STATUS OF LOCAL COOPERATION: The non-Federal sponsor is the City of Indianapolis, Indiana. The sponsor has provided all necessary local assurances for this stage of project development. The City of Indianapolis is a legally constituted public body with the full power, authority, and capability to perform the terms of the Project Cooperation Agreement (PCA). The terms of the PCA have been discussed with the sponsor and they understand their responsibilities. The PCA was executed in December 2000. The City of Indianapolis will fund its share of project costs through revenue generated from the flood district tax, which is part of the property tax mechanism for the entire county.

The current non-Federal cost estimate of \$6,472,000, which includes a cash contribution of \$5,209,000 is an increase of \$2,197,000 from the non-Federal cost estimate of \$4,275,000 noted in the Project Cooperation Agreement, which included a cash contribution of \$3,014,000. This increase is a result of price escalation on construction features and design changes to the levees and floodwalls contract. In a letter dated 12 July 2000, the non-Federal sponsor indicated that it is 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.

COMPARISON OF FEDERAL COST ESTIMATES: The Federal Cost estimate of \$19,412,000 is an increase of \$5,162,000 from the latest estimate (\$14,250,000) presented to Congress (FY2006). The changes include the following:

Item	Amount
Design Changes	\$ 4,995,000
Price Escalation on Construction Features	\$ 167,000
Total	\$ 5,162,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: A draft Environmental Impact Statement was circulated in May 1996 to all concerned agencies and the public for review. A final EIS was completed in September 1996 incorporating agency and public comments.

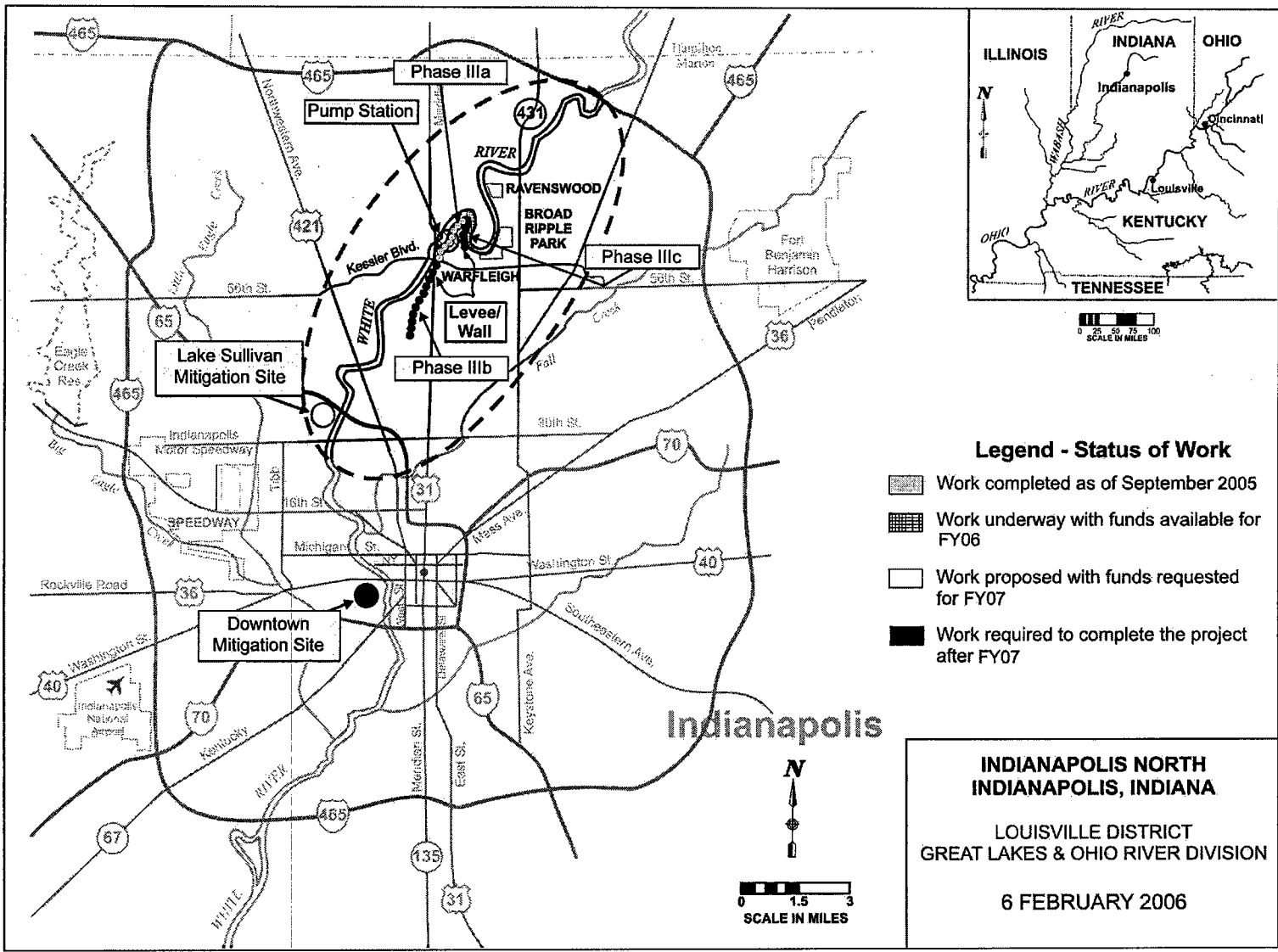
OTHER INFORMATION: Funds to initiate Preconstruction Engineering and Design were received in FY 1996. Initial construction funds were received in FY 2000. Fish & Wildlife mitigation cost is \$486,000. The scheduled completion date has not changed from the latest presented to Congress (FY 2006), "To Be Determined".

Division: Great Lakes & Ohio River

District: Louisville

Indianapolis, White River (North), IN

6 February 2006



6 February 2006

APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: Little Calumet River, Indiana (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; 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 to Clark; modifying 7 miles of channel with 3 accompanying bridge culvert modifications; modifying 1 highway bridge; constructing 16.8 miles of hiking/biking trails and accompanying recreation support facilities, and preserving 788 acres of 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.

REMAINING BENEFIT-REMAINING COST RATIO: 3.2 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 1.7 to 1 at 7 percent.

INITIAL BENEFIT-COST RATIO: 2.1 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.

SUMMARIZED FINANCIAL DATA		STATUS (1 Jan 2006)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	\$151,000,000	Entire Project	65	To Be Determined
Estimated Non-Federal Cost	50,000,000			
Cash Contributions	12,446,000			
Other Costs	33,257,000			

		PHYSICAL DATA		
Total Estimated Project Cost	\$201,000,000	Levees and Floodwalls	21.8 miles	
		Pumping Plant Modifications	17	
		Structures Removed	37	
		Structures Floodproofed	53	
		Channel Modification	7 miles	
		Hiking Trails	6.8 miles	

		ACCUM. PCT. OF EST. FED. COST
Allocations to 30 September 2003	\$ 88,092,000	
Allocations for FY 2004	3,990,000	
Allocations for FY 2005	4,886,000	
Conference Allowance for FY 2006	6,500,000	
Allocation for FY 2006	6,435,000 1/	
Allocations through FY 2006	103,403,000	68
Allocation Requested for FY 2007	14,000,000	78
Programmed Balance to Complete After FY 2007	33,597,000	
Unprogrammed Balance to Complete after FY 2007	0	

1/ Reflects \$65,000 rescinded in accordance with the Department of Defense, Emergency Supplemental Appropriations to Address Hurricanes in the Gulf of Mexico, and Pandemic Influenza Act, 2006, P.L. 109-148.

JUSTIFICATION: Overbank flood damages occur to 10,000 structures, primarily residential, along the Little Calumet River in Indiana within the communities of Hammond, Munster, Griffith and Gary. The total value of these structures is in excess of \$775 million. Continued flood damages occur to commercial and public buildings, and the transportation network. The major East/West highway transportation link between the Chicago metropolitan area and the eastern United States, Interstate 80/94, is susceptible to closure. About 160,000 vehicles per day of which 40% are trucks transit the area of the interstate. Average annual benefits are estimated at \$18,550,000. The project will provide essentially a 200-year level of flood protection. This project benefits 1.2 Million people and 10,000 dwellings.

\Division: Great Lakes & Ohio River

District: Chicago

Little Calumet River, IN

6 February 2006

JUSTIFICATION (continued): An estimated \$35 Million in flood damages were incurred and one life lost in the November 1990 flood, the most recent significant flood event. The communities of Hammond, Highland 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 for, as well as, enhanced along the river corridor. Lake County, Indiana qualifies as an area of persistent and chronic unemployment. A minority plan has been developed that identifies construction contracts which can be set aside for small business contractors and minority owned/Section 8A contractors who exist in the project area. A 40 percent minority participation goal has been established for all future construction contracts for the Contractor's aggregate workforce in each trade. The project will create 424 man-years of labor during the construction period.

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

FISCAL YEAR 2006: The current amount is being applied as follows:

Construct Stage VI-I	\$ 1,500,000
Construct Stage VI-I North	1,600,000
Construct Stage VI-2	1,454,000
Construct Landscaping 2	93,000
Construct Burr St 2	100,000
Construct V-2	400,000
Engineering and Design	788,000
Construction Management	500,000
Total	\$ 6,435,000

FISCAL YEAR 2007: The requested amount will be applied as follows:

Complete construction Stage VI-I South	\$ 1,175,000
Complete construction Stage VI-I North	3,525,000
Construct Stage VI-2	4,025,000
Construct Burr St II	1,500,000
Construct Stage V-2	2,000,000
Construct Landscaping 2	75,000
Engineering and Design	500,000
Construction Management	1,200,000
Total	\$ 14,000,000

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.	17,406,000	
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.	20,148,000	
Pay one-half separable costs allocated to recreation and bear all costs of operation, maintenance, repair, rehabilitation and replacement of recreation facilities;	2,489,000	

NON-FEDERAL COST (cont'd):

\Division: Great Lakes & Ohio River

District: Chicago

Little Calumet River, IN

6 February 2006

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.	7,801,000	150,000
Pay 25 percent of the first cost allocated to non-structural flood control measures.	1,905,000	
Pay 25 percent of the costs allocated to fish and wildlife enhancement, and pay 25 percent of the costs of operation, maintenance, repair, rehabilitation and replacement of the fish and wildlife facilities.	251,000	
Total Non-Federal Costs	\$50,000,000	\$ 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 \$50,000,000, which includes a cash contribution of \$12,446,000, is an increase of \$26,400,000 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 \$151,000,000 is an increase of \$1,000,000 from the latest estimate (\$150,000,000) presented to Congress (FY 2005). This change includes the following items:

Item	Amount
Price Escalation on Construction Features	-\$1,000,000
Post Contract Award and Other Estimating Adjustments	\$2,000,000
Total	\$1,000,000

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 by the District

Division: Great Lakes & Ohio River

District: Chicago

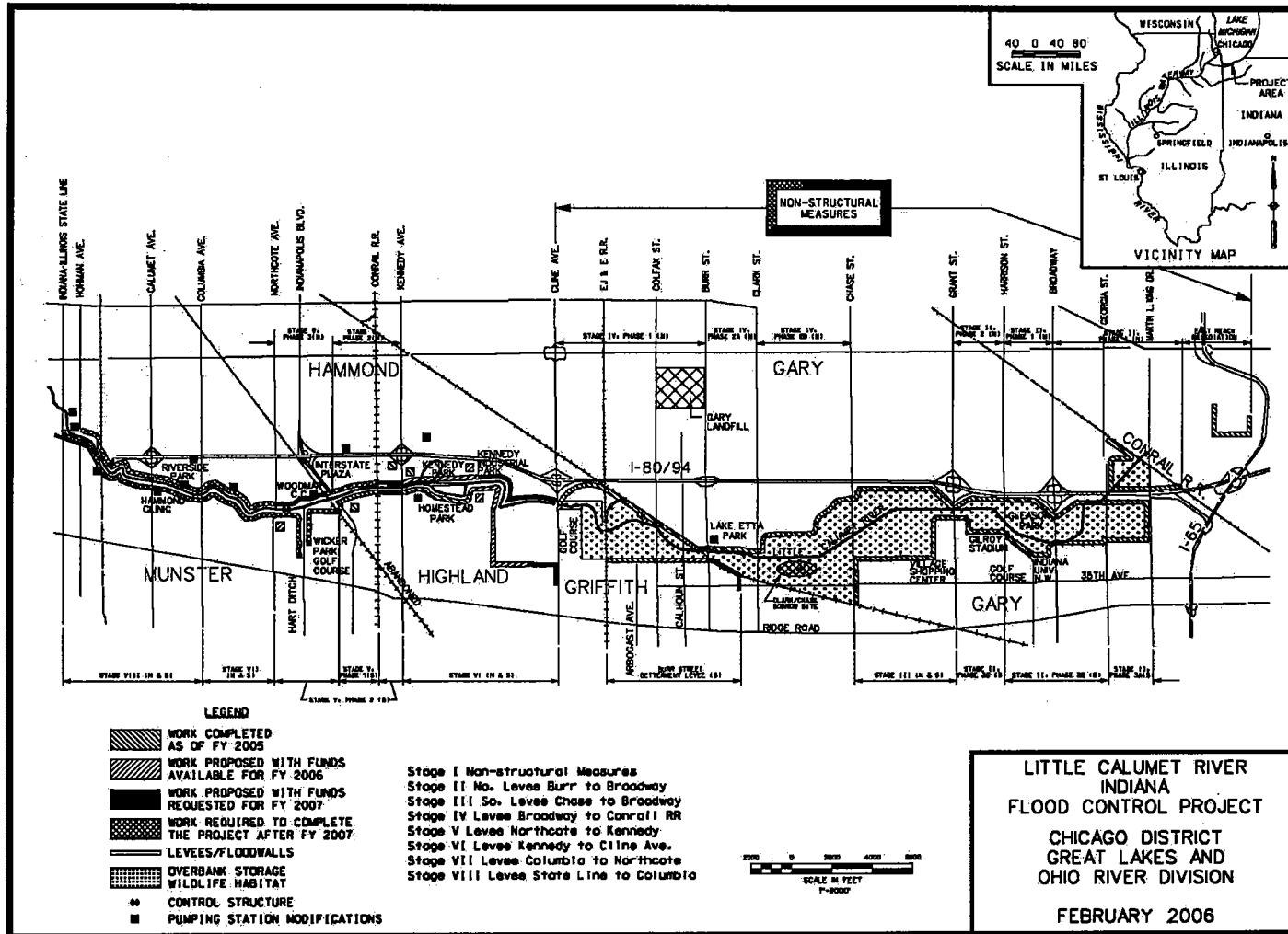
Little Calumet River, IN

6 February 2006

Engineer 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 and enhancement costs for this project are estimated at \$5,220,000. A 902 PAC report was approved by HQUSACE on 5 December 2000. FY 2006 Appropriation Bill raised project authorization cost to \$198,000,000.

The scheduled completion date is the same as the latest presented to Congress (FY 2006), "To Be Determine.



LRC.DGN

APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: McCook and Thornton Reservoirs, Illinois (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 having floodwater storage capacities of 21,400 acre-feet (7 billion gallons) and 14,600 acre-feet (4.8 billion gallons), respectively. The Thornton Reservoir project authorization was modified to evaluate inclusion of the National Resource Conservation Service Thorn Creek Reservoir with the Thornton Reservoir project. The combined 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). McCook and Thornton both will serve as the termini of the Metropolitan Water Reclamation District of Greater Chicago's TARP project (Tunnel and Reservoir Plan) 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 raw sewage and storm water 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 locks must be opened to release the combined sewer flow into Lake Michigan - the source of drinking water for millions. Reservoir features include pumps, a cutoff wall, main and distribution tunnels, gates and valves, hydraulic structures, wall stabilization and aquifer protection, aeration and wash-down systems.

AUTHORIZATION: Water Resources Development Act of 1988, modified by the Water Resources Development Act of 1999.

REMAINING BENEFIT-REMAINING COST RATIO: 3.1 to 1 at 7 percent (McCook and Thornton combined).
3.6 to 1 at 7 percent (McCook only)

TOTAL BENEFIT-COST RATIO: 2.1 to 1 at 7 percent. (McCook and Thornton combined)
2.5 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 & Ohio River

District: Chicago

PHYSICAL

McCook and Thornton Reservoirs, IL

6 February 2006

SUMMARIZED FINANCIAL DATA		STATUS (1 Jan 2006)	PERCENT COMPLETE	COMPLETION SCHEDULE
Estimated Federal Cost	\$ 554,000,000	McCook Reservoir	20	To Be Determined
Estimated Non-Federal Cost	185,000,000	Thornton Reservoir	0	To Be Determined
Cash Contributions	91,898,000	Entire Project	15	To Be Determined
Other Costs	93,102,000			
Total Estimated Project Cost	\$ 739,000,000			

		ACCUM. PCT. OF EST. FED. COST	PHYSICAL DATA	
Allocations to 30 September 2003	\$	57,114,000		
Allocations for FY 2004		20,024,000		
Allocations for FY 2005		27,772,000		
Conference Allowance for FY 2006		27,500,000	McCook Reservoir	
Allocation for FY 2006		27,225,000	Storage Capacity	21,400 acre-feet
Allocations through FY 2006		132,135,000	24	Thornton Reservoir
				Storage Capacity
				24,200 acre-feet
Allocation Requested for FY 2007		45,000,000	32	
Programmed Balance to Complete After FY 2007		220,997,000		
Unprogrammed Balance to Complete after FY 2007		155,868,000		

1/ Reflects \$275,000 rescinded in accordance with the Department of Defense, Emergency Supplemental Appropriations to Address Hurricanes in the Gulf of Mexico, and Pandemic Influenza Act, 2006, P.L. 109-148.

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 the area waterways. The McCook Reservoir will provide an additional 7 times the storage capacity of its billion gallon capacity 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 an additional 8 times the storage capacity of its half billion gallon capacity 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.

Division: Great Lakes & Ohio River

District: Chicago

McCook and Thornton Reservoirs, IL

6 February 2006

JUSTIFICATION (continued):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 2009 when their current NPDES (National Pollution Discharge Elimination System of the Clean Water Act) permit expires. The Department of Justice spent 2 days at the end of August 2004 talking to MWRDGC and touring their facilities. DOJ would like MWRDGC to sign an Administrative Order with USEPA on a timeline to get McCook Reservoir constructed and operational. With the past lack of Federal funds for McCook Reservoir, MWRDGC does not believe that is in their best interest and so far is not willing to sign any such order. This delay could force Department of Justice to order enforced settlement to comply with Clean Water Act.

Risks to human health are high due to continued contaminated flooding. One of the intended purposes of this project is to prevent sewage backflow to Lake Michigan drinking water supply damaging the aquatic ecosystem, including fish tainting, contaminant uptake 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 and is a priority issue of the Great Lakes Regional Collaboration established in response to Executive Order 13340 signed by President Bush in May 04.

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

Annual Benefits	Amount
Flood Damage Prevention	85,066,000
Water Quality	14,732,000
Water Supply	9,572,000
Recreation	1,030,000
Total	\$ 110,400,000

FISCAL YEAR 2006: The current amount is being applied as follows:

Complete construction Distribution Tunnels	\$ 2,500,000
Initiate construction Cut-off wall 2	2,000,000
Complete construction Pumps and Motors	2,300,000
Initiate construction Grout Stage 1	13,875,000
Initiate construction Wall Stability	2,000,000
Engineering and Design – McCook Reservoir	3,200,000
Construction Management	1,350,000
Total	27,225,000

FISCAL YEAR 2007: The requested amount will be applied as follows:

Complete construction Cut-off Wall 2	\$	8,000,000
Continue construction Grout Stage I		26,000,000
Continue construction Wall Stability		6,500,000
Engineering and Design – McCook Reservoir		1,500,000
Construction Management		3,000,000
Total	\$	45,000,000

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.	5,069,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	32,833,000	
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.	78,098,000	4,300,000
Total McCook Reservoir	\$116,000,000	4,300,000
Thornton Reservoir: Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas.	27,682,000	
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.	27,518,000	
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,	13,800,000	2,800,000

Division: Great Lakes & Ohio River

District: Chicago

McCook and Thornton Reservoirs, IL

6 February 2006

maintenance, repair, rehabilitation and replacement of flood control facilities.

Total Thornton Reservoir	\$ 69,000,000	\$2,800,000
Total Non-Federal	\$185,000,000	\$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. 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 \$116,000,000, which includes a cash contribution of \$ 78,098,000 and is a decrease of \$13,050,000 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 \$69,000,000, which includes a cash contribution of \$13,800,000 and is a decrease of \$4,000,000 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 \$554,000,000 is a decrease of \$29,000,000 from the latest estimate (\$583,000,000) presented to Congress (FY 2006). This change includes the following items:

Item	Amount
Post Contract Award and other Estimating Adjustments	-\$27,000,000
Price Escalation on Construction Features	- \$ 2,000,000
Total	- \$29,000,000

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. The scheduled completion date is the same as the latest presented to Congress (FY 2006), "To Be Determined".

SEPARABLE ELEMENT: McCook Reservoir, Illinois

SUMMARIZED FINANCIAL DATA

Estimated Federal Cost		\$ 347,000,000
Non-Federal Cost		116,000,000
Cash Contributions	78,098,000	
Other Costs	37,902,000	
Total Estimated Project Cost		\$ 463,000,000

REMAINING BENEFIT-REMAINING COST RATIO: 3.6 to 1 at 7 percent

TOTAL BENEFIT-COST RATIO: 2.5 to 1 at 7 percent

SEPARABLE ELEMENT: Thornton Reservoir, Illinois

SUMMARIZED FINANCIAL DATA

Estimated Federal Cost		\$207,000,000
Non-Federal Cost		69,000,000
Cash Contributions	13,800,000	
Other Costs	55,200,000	
Total Estimated Project Cost		\$276,000,000

REMAINING BENEFIT-REMAINING COST RATIO: 1.5 to 1 at 7 percent

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

Division: Great Lakes & Ohio River

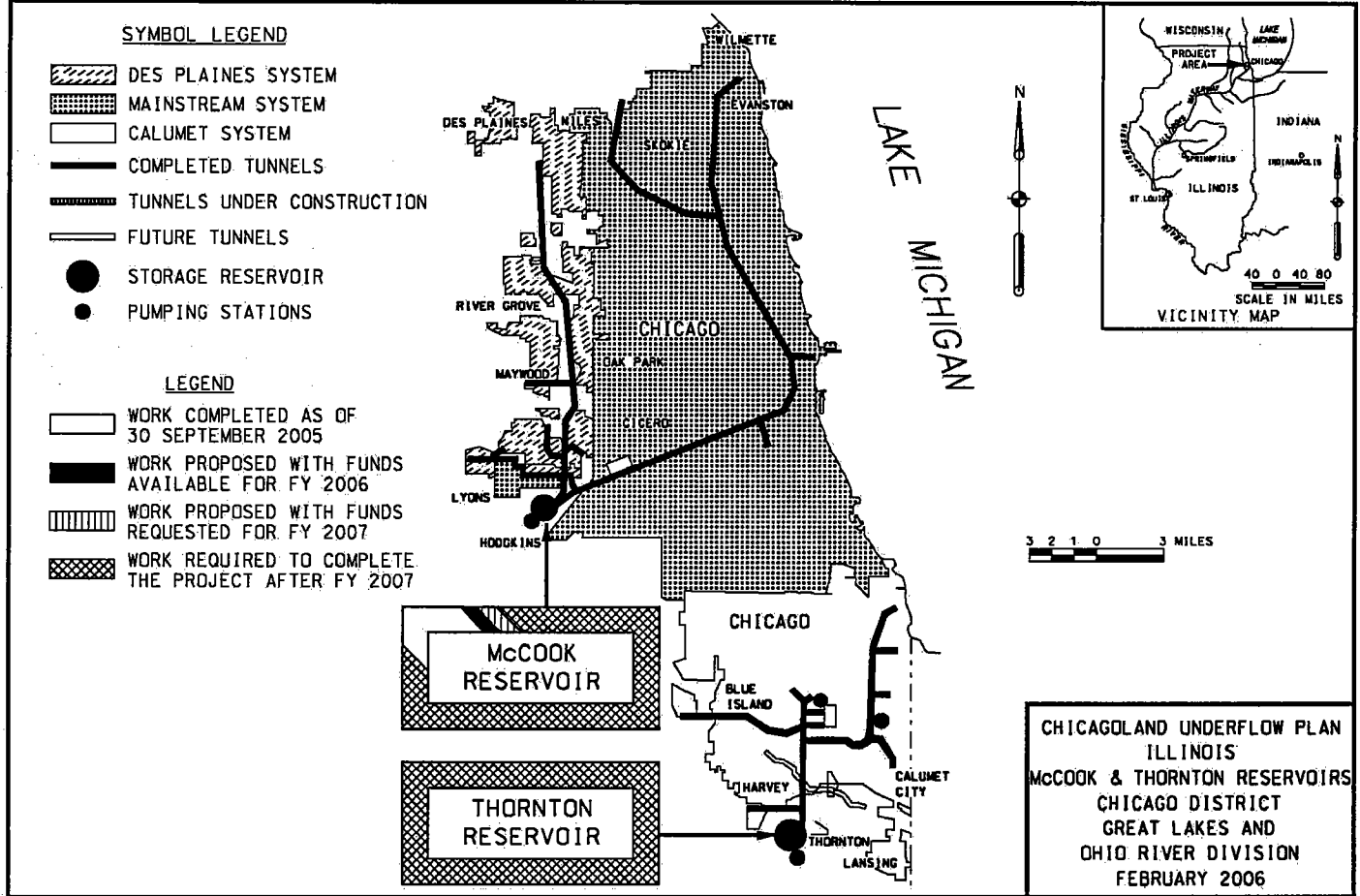
District: Chicago

McCook and Thornton Reservoirs, IL

6 February 2006

CORPS OF ENGINEERS

U. S. ARMY



MCCK-THOR.DGN

6 February 2006

APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: Metropolitan Louisville, Beargrass Creek, KY (Continuing)

LOCATION: The project is located in eastern Jefferson County in the suburbs of Louisville, Kentucky, along the South Fork Beargrass Creek and Buechel Branch.

DESCRIPTION: The project consists of construction of eight detention basins, about 2,000 linear feet of channel improvement, and 1,400 linear feet of floodwall/levee on the South Fork of Beargrass Creek and Buechel Branch. The project will provide protection to 830 structures (combination of residential and commercial). Of those structures, 314 will be removed from the 100-year flood plain. The 100-year flood will be reduced an average of 1.5 feet, as a result of project implementation. All work is programmed.

AUTHORIZATION: The Water Resource Development Act of 1999.

REMAINING BENEFIT-COST RATIO: 17.0 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 1.7 to 1 at 7 percent.

INITIAL BENEFIT-COST RATIO: 2.7 to 1 at 6 7/8 percent (FY 2001)

BASIS OF BENEFIT-COST RATIO: Benefits are from the Final Feasibility Report dated September 1997 at October 1996 price levels.

SUMMARIZED FINANCIAL DATA		STATUS (1 Jan 2006)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	\$ 9,423,000	Entire Project	60	30-Sep-2007
Estimated Non-Federal Cost	5,074,000			
				PHYSICAL DATA
Cash Contribution	1,845,000			Floodwall/Levee 1,400 feet
Other Costs	3,229,000			Channel Improvement 2,000 feet
				Detention Basins 8
Total Estimated Project Cost	\$14,497,000			

Great Lakes and Ohio River Division

District: Louisville

Metropolitan Louisville, Beargrass Creek, KY

SUMMARIZED FINANCIAL DATA (Continued)

		ACCUM. PCT OF EST. FED. COST
Allocations to 30 September 2003	3,344,000	
Allocations for FY 2004	3,014,000	
Allocations for FY 2005	2,465,000	
Conference Allowance for FY 2006	0	
Allocation for FY 2006	0	
Allocations through FY 2006	8,823,000	94
Allocation Requested for FY 2007	600,000	100
Programmed Balance to Complete after FY 2007	0	
Unprogrammed Balance to Complete after FY 2007	\$ 0	

JUSTIFICATION: Approximately 26 percent of Jefferson County's population resides in the Beargrass Creek Basin. In recent years, the great majority of the 60 square mile basin has been developed. The value of development in the study area is estimated at \$500,000,000. Stream reaches of the South Fork of Beargrass Creek and Buechel Branch are subject to inundation as a result of insufficient in-bank flowage areas and increased runoff from upstream development. Upstream industrial, commercial, and residential development has contributed to increased storm runoff and flooding on South Fork Beargrass Creek and Buechel Branch. Major floods occurred in the basin in 1960, 1964, 1970, 1973, and 1997. Based on October 1995 prices and conditions, a 100-year frequency flood in the basin would result in approximately \$55 million in damages to 929 structures. The March 1997 flood inflicted an estimated \$8 million in damages within the basin. The average annual benefits amount to \$2,368,000, all for flood damage reduction.

Average annual benefits are as follows:

Annual Benefits	Amount
Flood Control	\$ 2,368,000
Total	\$ 2,368,000

FISCAL YEAR 2006: No new funds were provided. The available funds which were carried over from Fiscal Year 2005 will be used as follows:

Complete Phase IIA contract	164,000
Phase IIB contract	940,000
Engineering and Design	24,000
Construction Management	35,000
Total	\$1,163,000

FISCAL YEAR 2007: The requested amount will be applied as follows:

Complete Phase IIB contract	\$ 526,000
Engineering and Design	20,000
Construction Management	54,000
Total	\$ 600,000

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 dredged material	\$ 3,086,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	143,000	
Pay 12.7 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, and rehabilitation.	1,845,000	\$ 24,000
Total Non-Federal Costs	\$ 5,074,000	\$ 24,000

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

Great Lakes and Ohio River Division

District: Louisville

Metropolitan Louisville, Beargrass Creek, KY

STATUS OF LOCAL COOPERATION: The non-Federal cost sharing partner is the Louisville and Jefferson County Metropolitan Sewer District (MSD). MSD cost shared the feasibility phase of the project. A PED phase cost sharing agreement with MSD was executed in January 1998. The Chief of Engineers report approved the project in May 1998. A Project Cooperation Agreement (PCA) with MSD was executed in September 2001.

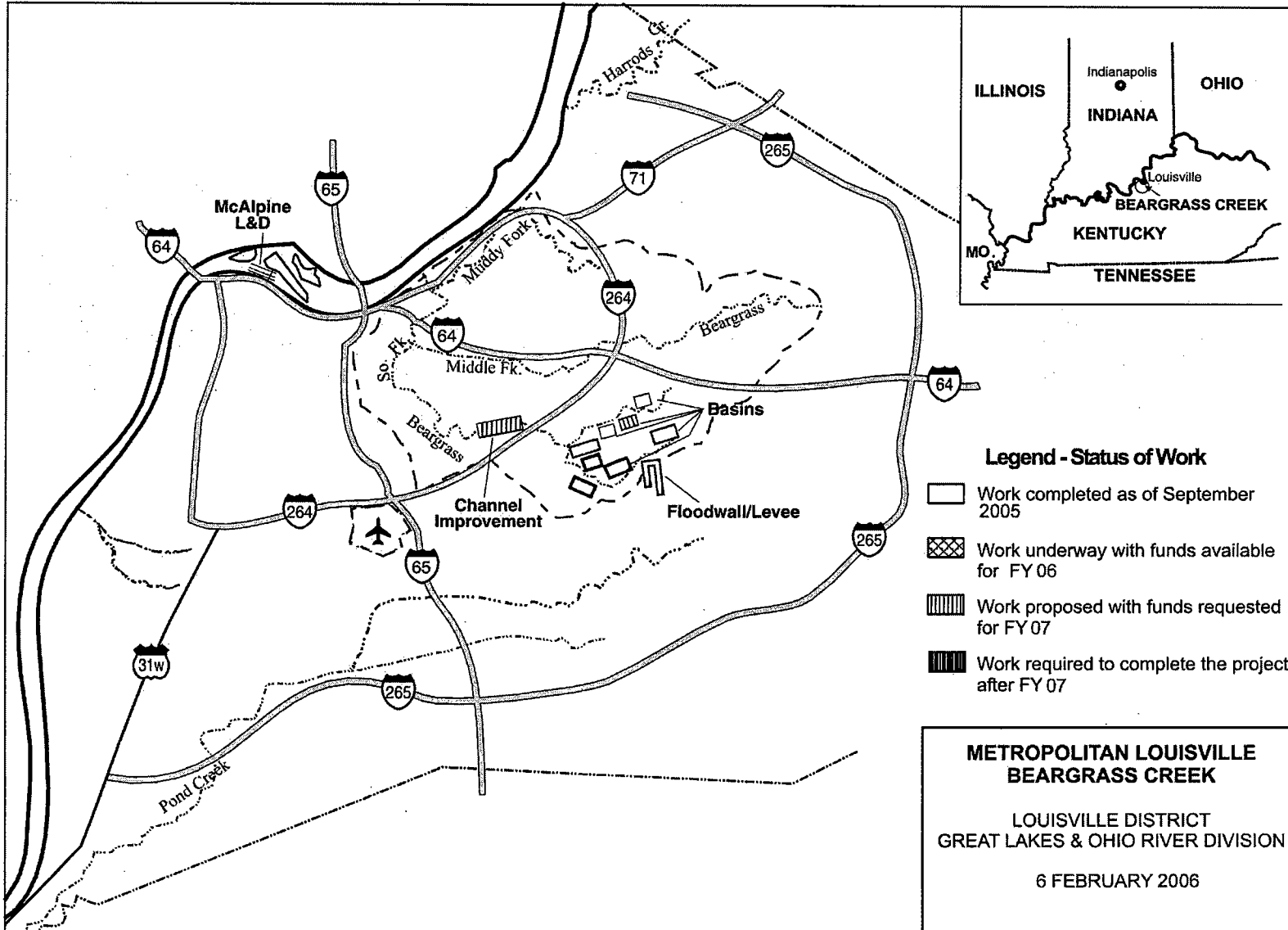
The current non-Federal cost estimate of \$5,074,000, which includes a cash contribution of \$1,845,000, is an increase of \$792,000 from the non-Federal cost estimate of \$4,282,000 noted in the PCA, which included a cash contribution of \$1,182,000. This increase is due to price escalation of the project's construction and land features and design changes for the Phase III contract. 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 \$9,423,000 is an increase of \$910,000 in the last estimate (\$8,513,000) presented to Congress (FY2005). The change includes the following items:

Item	Amount
Design and Construction Changes	\$ 910,000
Total	\$ 910,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An environmental assessment was prepared and circulated for review. A Finding Of No Significant Impact was signed in September 1997.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1997. Funds to initiate construction were appropriated in FY 2001. The first construction contract for the project was awarded in August 2002. The scheduled completion date has changed from the latest presented to Congress (FY 2005), TBD, to September 2007. Slippage was due to delay in acquiring all necessary Real Estate.



APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: Metropolitan Region of Cincinnati, Duck Creek, Ohio (Continuing)

LOCATION: The project encompasses 3.2 miles of stream reach in the City of Cincinnati and the Village of Fairfax, in Hamilton County, Ohio.

DESCRIPTION: The recommended plan consists of 1,200 feet of stream channel relocation; 8,500 feet of streambank protection; 3,300 feet of earth levees; 7,100 feet of concrete floodwalls; 1,250 feet of precast concrete arch culvert, widening of one railroad bridge; demolition of one abandoned highway bridge; one pump station for interior drainage; one automated floodgate closure; one emergency access road; one flood emergency warning system; 32.1 acres of permanent easements and 10.0 acres of temporary easements; and environmental mitigation. All work is programmed.

AUTHORIZATION: Water Resources Development Act of 1996 and Water Resources Development Act of 2000.

REMAINING BENEFIT-COST RATIO: 3.2 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 0.99 to 1 at 7 percent.

INITIAL BENEFIT-COST RATIO: 1.26 to 1 at 7 3/4 percent (FY 1997).

BASIS OF BENEFIT-COST RATIO: Project Design Memorandum for Duck Creek, Ohio, dated January 1996, at January 1996 price levels. An economic update of the Duck Creek, Cincinnati, OH study was completed in September 2000 at October 2000 price levels. An Engineering Document Report was approved in September 2003 at October 2002 price levels.

SUMMARIZED FINANCIAL DATA		STATUS (1 Jan 2006)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE	
Estimated Federal Cost		\$37,084,000	Entire Project	60	To Be Determined
Estimated Non-Federal Cost		4,200,000		PHYSICAL DATA	
Cash Contribution	2,064,000				
Other Costs	2,136,000				
Total Estimated Project Cost		\$41,284,000			
			Levees	3,300 ft.	Access Road 1
			Floodwalls	7,100 ft.	Widen R.R. Bridge 1
			Channel Relocation	1,200 ft.	Pump Station 1
			Streambank Protection	8,500 ft.	Permanet Easements 32 ac
			Triple Box Culvert	1,250 ft.	Demolish Hwy Bridge
SUMMARIZED FINANCIAL DATA (Continued)			ACCUM.		

Division: Great Lakes & Ohio River

District: Louisville

Metropolitan Region of Cincinnati, Duck Creek, OH

		PCT OF EST. FED. COST
Allocations to 30 September 2003	\$ 13,130,000	
Allocations for FY 2004	5,246,000	
Allocations for FY 2005	1,638,000	54
Conference Allowance for FY 2006	1,650,000	
Allocation for FY 2006	1,633,500 1/	
Allocations through FY 2006	21,647,500	58
Allocation Requested for FY 2007	5,650,000	74
Programmed Balance to Complete after FY 2007	\$ 9,786,500	100
Unprogrammed Balance to Complete after FY 2007	0	

1/ Reflects \$16,500 rescinded in accordance with the Department of Defense, Emergency Supplemental Appropriations to Address Hurricanes in the Gulf of Mexico, and Pandemic Influenza Act, 2006, P.L. 109-148.

JUSTIFICATION: This flood and storm damage reduction 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. Duck Creek suffers from frequent flash flooding affecting roads, utilities, 9 residential properties, and 32 commercial/industrial properties valued at \$62.4 million; threatens over 1,000 jobs in manufacturing; and disrupts production. The most recent out-of-bank flooding causing property damage occurred in June 1997, July 2001, and May 2003. Threatening flood conditions occurred 3 times in a two-month period during 2005. The potential for frequent damaging floods and for less frequent but catastrophic flooding exists during any given year. Additional significant flooding occurred in 1982 and 1985. These two floods are estimated to have been a 25-year frequency event and a 10-year frequency event, respectively. A recurrence of these floods would cause damages estimated at \$5.6 million and \$1.2 million, respectively, in 1995 price levels and conditions of development. The recommended plan reduces average annual flood damages by 94 percent. The recommended plan provides a uniform 100-year level of protection for the three protected areas.

Average annual benefits at 7 percent are as follows

Annual Benefits	Amount
Flood Control	\$ 4,213,000
Advance Bridge Replacement Location	61,000 9,000
Total	\$ 4,283,000

Division: Great Lakes & Ohio River

District: Louisville

Metropolitan Region of Cincinnati, Duck Creek, OH

FISCAL YEAR 2006: The allocated amount will be applied as follows:

Continue Phase 2A contract	790,000
Complete Phase 3 contract	300,000
Federal Land Acquisition	170,700
Federal Admin of Real Estate	30,000
Continue Planning, Engineering and Design	147,800
Construction Management	195,000
Total	\$1,633,500

FISCAL YEAR 2007: The requested amount will be applied as follows:

Continue Federal Land Acquisition	845,000
Construct floodwall/levee	4,132,000
Continue Planning, Engineering and Design	423,000
Construction Management	200,000
Total	\$5,650,000

NON-FEDERAL COSTS: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986 and modified by the Water Resources Development Act of 2000, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Const/Reimb	Annual OMRR&R Costs
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas.	\$ 1,855,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	281,000	
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, replacement, and rehabilitation.	2,064,000	\$ 55,000
Total Non-Federal Costs	\$ 4,200,000	\$ 55,000

The non-Federal sponsors have agreed to make all payments concurrently with project construction.

Division: Great Lakes & Ohio River

District: Louisville

Metropolitan Region of Cincinnati, Duck Creek, OH

STATUS OF LOCAL COOPERATION: The non-Federal sponsors are the City of Cincinnati, Ohio, and the Village of Fairfax, Ohio. The terms of the Project Cooperation Agreement (PCA) have been discussed with each sponsor and each understands its responsibilities. The PCA was executed in December 1997. A PCA amendment to support the new authorized total project cost and maximum non-federal cost was executed in September 2004. In May 1993, the Cincinnati City Council approved a rate increase by the Cincinnati Stormwater Management Utility that included funds for the city's share of project costs. Construction of flood damage reduction features is nearing completion in the Village of Fairfax.

The current non-Federal cost estimate of \$4,200,000, which includes a cash contribution of \$2,064,000, is the same as the last non-Federal cost estimate presented to Congress (FY 2006). The cost estimate reflects the project's modified authorization in the Water Resources Development Act of 2000, which capped the non-Federal sponsor's costs.

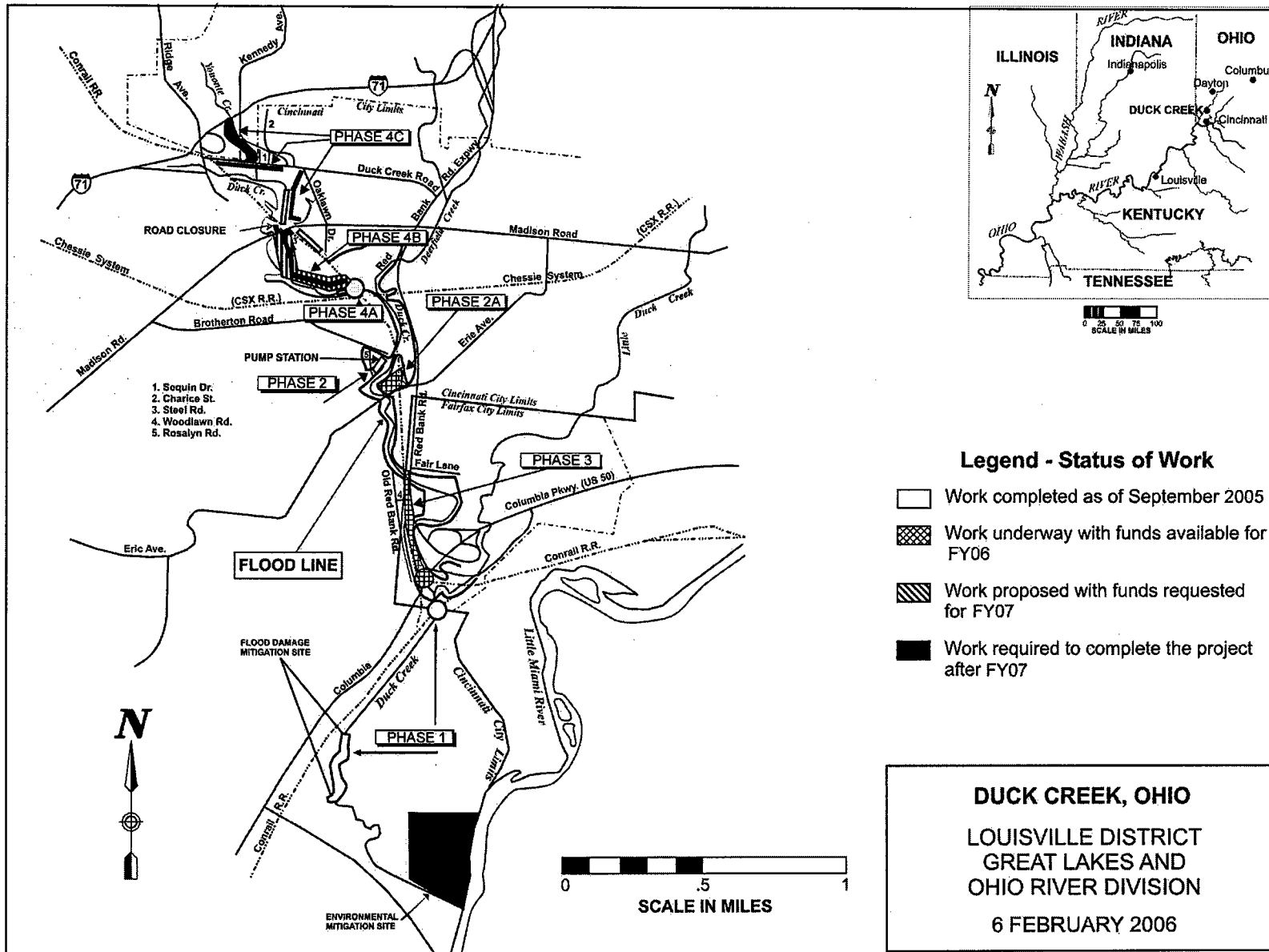
COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$37,084,000 is an increase of \$4,091,000 from the latest estimate (\$32,993,000) presented to Congress (FY 2006). The change includes the following items:

Total	Amount
Design Changes	\$ 3,945,000
Price Escalation on Construction Features	\$ 146,000
Total	\$ 4,091,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An Environmental Assessment was conducted and a Finding of No Significant Impact was signed on 14 January 1994.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1994. Funds to initiate construction were appropriated in FY 1997. The scheduled completion date has not changed from the latest presented to Congress (FY 2006), "To Be Determined".

7 February 2000



7 February 2000

APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: Metropolitan Louisville, Pond Creek, Kentucky (Continuing)

LOCATION: The project is located in the central and eastern portions of the 126 square mile Pond Creek watershed, in southern Jefferson County, Kentucky.

DESCRIPTION: The project consists of construction of detention basin storage at the Melco Detention Basin on Northern Ditch and the Vulcan Quarry Detention Basin on Fishpool Creek; channel enlargement along approximately 2.4 miles of Pond Creek and 1.5 miles of Northern Ditch; a multipurpose maintenance road/hiking trail along the Pond Creek channel improvement; and a fifteen acre wetlands environmental restoration component at a site owned by the local sponsor. All work is programmed.

AUTHORIZATION: The Water Resources Development Act of 1996.

REMAINING BENEFIT-REMAINING COST RATIO: 4.4 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 2.6 to 1 at 7 percent.

INITIAL BENEFIT-COST RATIO: 2.8 to 1 at 7 3/4 percent (FY 1997).

BASIS OF BENEFIT-COST RATIO: Benefits are from the Project Design Memorandum, dated May 1995, at 1995 price levels.

SUMMARIZED FINANCIAL DATA		STATUS (1 Jan 2006)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	\$17,047,000	Phase I (Env. Rest.)	100	
		Phase II (Vulcan)	100	
Estimated Non-Federal Cost	5,682,000	Phase III (Melco)	100	
Cash Contribution	1,514,000	Phase IV (Ch. Imp)	0	30 Sep 2007
Other Costs	4,168,000	Entire Project	77	30 Sep 2007
Total Estimated Project Cost	\$22,729,000	PHYSICAL DATA		
		Channel Improvement		3.9 miles
		Detention Basin Storage		2 @ 1,600 acre/ft
		Wetlands Env. Restoration		15 acres
		Maint. Rd/Hike-Bike Trail		3.4 miles
		Permanent Easements		65.7 acres

SUMMARIZED FINANCIAL DATA (Continued)

Division: Great Lakes & Ohio River

ACCUM.

District: Louisville

Metropolitan Louisville, Pond Creek, KY

6 February 2006

		PCT OF EST. FED. COST
Allocations to 30 September 2003	\$ 9,001,000	
Allocations for FY 2004	294,000	
Allocations for FY 2005	171,000	
Conference Allowance for FY 2006	3,670,000	
Allocation for FY 2006	3,633,000 1/	
Allocations through FY 2006	13,099,000	77
Allocation Requested for FY 2007	3,948,000	100
Programmed Balance to Complete after FY 2007	0	
Unprogrammed Balance to Complete after FY 2007	\$ 0	

1/ Reflects \$ 37,000 rescinded in accordance with the Department of Defense, Emergency Supplemental Appropriations to Address Hurricanes in the Gulf of Mexico, and Pandemic Influenza Act, 2006, P.L. 109-148.

JUSTIFICATION: The project is located in southwestern Jefferson County, Kentucky, and drains an area of approximately 71 square miles. Approximately 5,500 structures are located within the highly urbanized Pond Creek floodplain. Due to rapid residential and commercial development within the area, properties along Pond Creek and tributaries now have only a two-year level of protection, leaving residential, commercial, and industrial structures vulnerable to disastrous flash floods. The flood of record occurred in March 1964. A recurrence of this flood today would result in damages of approximately \$106 million, under 1995 price levels and conditions of development. The most recent flood experienced in the basin was between a 50 and 100-year flood event, occurred in March 1997, and caused damages to residential and commercial properties in the basin that totaled approximately \$201 million.

Average annual benefits are at 7 percent as follows:

Annual Benefits	Amount
Flood Control	\$ 3,999,000
Recreation	76,000
Total	\$ 4,075,000

FISCAL YEAR 2006: The allocated amount will be applied as follows:

Division: Great Lakes & Ohio River

District: Louisville

Metropolitan Louisville, Pond Creek, KY

6 February 2006

Continue Project Construction	\$ 3,577,000
Construction Management	56,000
Total	\$ 3,633,000

FISCAL YEAR 2007: The requested amount will be applied as follows:

Complete Project Construction	\$ 3,573,000
Planning, Engineering, and Design	125,000
Construction Management	250,000
Total	\$ 3,948,000

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 Const/Reimb	Annual OMRR&R Costs
Provide lands, easements, rights of way, & borrow & excavated or dredged material disposal area.	\$ 4,168,000	
Pay approximately 5 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 25.5 percent and bear all costs of operation, maintenance, repair, replacement, and rehabilitation of flood control facilities, which meets mandatory 5% cash requirement plus total of all LERRD credits.	992,000	\$ 68,000
Pay one-half of the separable costs allocated to recreation and bear all costs to operate, maintain, repair, replace, and rehabilitate recreation facilities.	383,000	1,000
Pay approximately percent of the costs allocated to environmental restoration to bring the total non-Federal share of environmental restoration costs to 25 percent and bear all costs of operation, maintenance, repair, replacement, and rehabilitation of environmental restoration facilities.	139,000	1,000
Total Non-Federal Costs	\$ 5,682,000	\$ 70,000

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

STATUS OF LOCAL COOPERATION: The non-Federal cost sharing partner is the Louisville and Jefferson County Metropolitan Sewer District (MSD).

The Project Cooperation Agreement was executed in March 1998. The current non-Federal cost estimate of \$5,682,000, which includes a cash contribution of

Division: Great Lakes & Ohio River	District: Louisville	Metropolitan Louisville, Pond Creek, KY
------------------------------------	----------------------	---

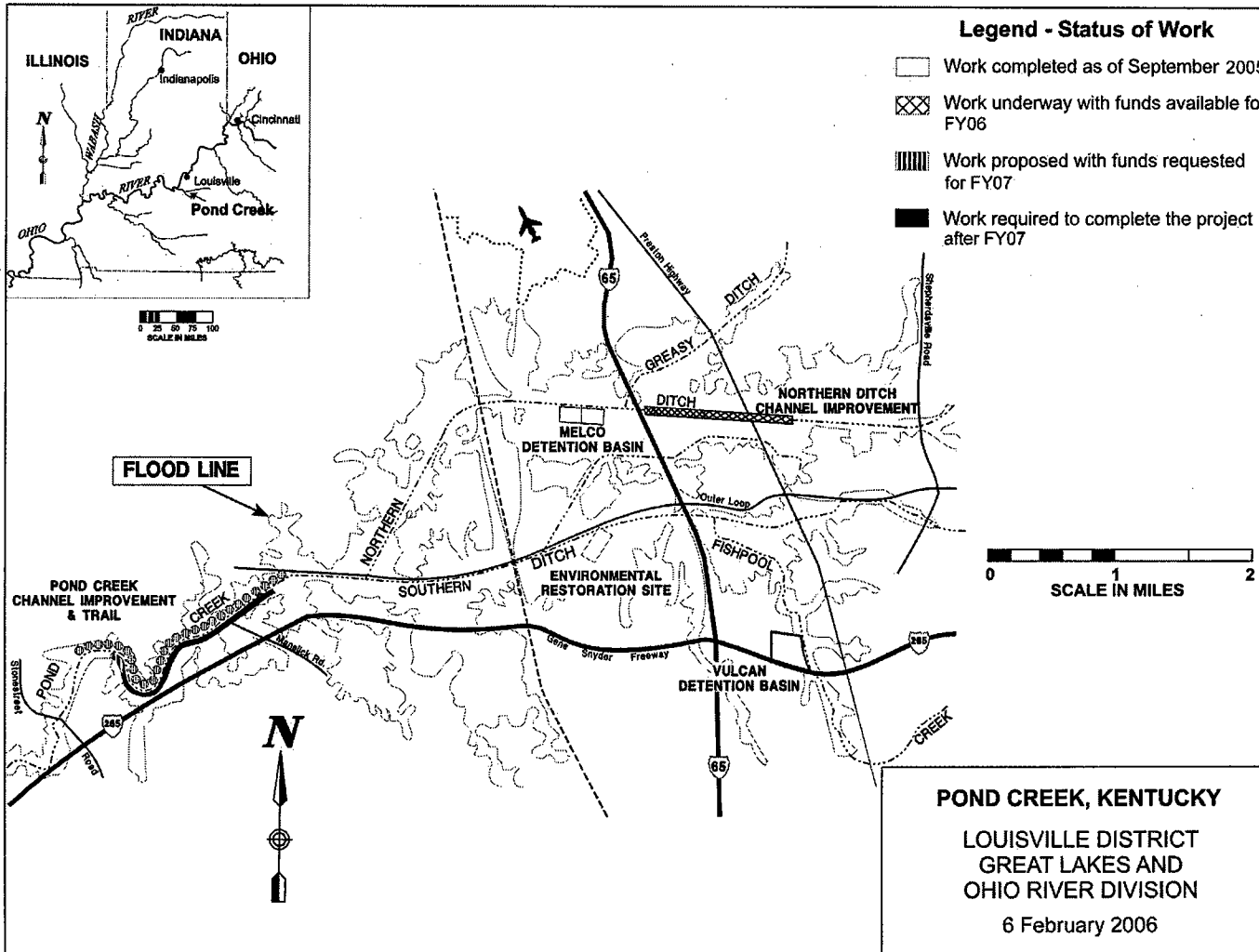
\$1,514,000, is an increase of \$440,000 from the non-Federal cost estimate of \$5,242,000 noted in the Project Cooperation Agreement, which included a cash contribution of \$1,074,000. This increase in cost is due to the application of bioengineering techniques, a more detailed cost estimate for the Channel Improvement along Northern Ditch, and inflation on construction features. The non-Federal sponsor continues to demonstrate they have a reasonable and implementable plan for meeting their financial commitment.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$17,047,000 is a increase of \$1,823,000 from the latest estimate (\$15,224,000) presented to Congress in FY 2006.

Item	Amount
Price Escalation on Construction Features	\$ 100,000
Design Changes	300,000
Other Estimating Adjustments (Including Contingency)	1,173,000
Schedule Changes	100,000
Price Escalation on Real Estate	150,000
Total	\$ 1,823,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An Environmental Assessment and a Finding of No Significant Impacts (FONSI) have been signed and were included in the Interim Feasibility Report, dated March 1994. In addition, a Section 404(b)(1) Evaluation has been completed and a 401 Water Quality Certification has been obtained from the Kentucky Division of Water.

OTHER INFORMATION: Funds to initiate Preconstruction Engineering and Design (PED) were appropriated in FY 1994 and funds to initiate construction were appropriated in FY 1997. The scheduled completion date has changed from the latest presented to Congress (FY 2006) "To Be Determined", to September 2007.



6 February 2006

APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: Mill Creek, Ohio (Continuing)

LOCATION: The project is located along a 17.5 mile length of Mill Creek in Hamilton County, Ohio, and the 3/4-mile length of East Fork in Hamilton County, Ohio. Lower Mill Creek is in the commercial and industrial heart of the Cincinnati metropolitan area in the southwestern portion of the State.

DESCRIPTION: The project includes 17.5 miles of channel improvement, 2 miles of levees, 3 pumping plants, modification of highway and railroad bridges, and the addition of 2 pumping units at the existing Mill Creek barrier dam. A paved greenbelt within the channel right-of-way will be provided for high-density urban oriented recreational use. Approximately 6.1 miles of channel improvement and the addition of 2 pumping units at the existing barrier dam have been completed. A General Reevaluation Report, the Flood Warning System, and Remedial Repairs at Section 3 are complete. Remedial repairs required to turn over completed Sections 1, 2, and 4a are programmed.

AUTHORIZATION: 1970 Flood Control Act

REMAINING BENEFIT-REMAINING COST RATIO: 28.7 to 1 at 7 percent for punch list items.

TOTAL BENEFIT-COST RATIO: 0.6 to 1 at 7 percent.

INITIAL BENEFIT-COST RATIO: 3.2 to 1 at 5-5/8 percent (FY 1975).

BASIS OF BENEFIT-COST RATIO: Design Memorandum No. 3, approved in September 1975 at 1975 price levels.

SUMMARIZED FINANCIAL DATA		STATUS (1 Jan 2006)	PHYSICAL	
			PERCENT COMPLETE	COMPLETION SCHEDULE
Estimated Federal Cost	\$ 163,000,000	Flood Warning System	100	Sep 2004
Programmed Construction	119,383,000	Section 3 Punch List Items	100	Oct 2004
Unprogrammed Construction	43,617,000	General Reevaluation Report	100	Mar 2005
Estimated Non-Federal Cost	\$ 51,210,000	Remedial Repairs	0	To Be Determined
Programmed Construction	15,843,000	Entire Project	TBD	To Be Determined
Cash Contribution	71,000	PHYSICAL DATA		
Other Costs	15,772,000	Channel Improvements	17.5 miles	
Estimated Non-Federal Cost		Levees	2.0 miles	
Unprogrammed Construction	35,367,000	Pumping Plants	3	
Cash Contributions	4,867,000	Relocate Railroad Bridges	7	
Other Costs	30,500,000	Relocate Hwy & Road Bridges	17	
Division: Great Lakes & Ohio River		District: Louisville		Mill Creek, OH

SUMMARIZED FINANCIAL DATA (Continued)

ACCUM
PCT OF EST.
FED. COST

Total Estimated Programmed Construction Cost	\$ 135,226,000	
Total Estimated Unprogrammed Construction Cost	78,984,000	
Total Estimated Project Cost	\$ 214,210,000	
Allocations to 30 September 2003	\$ 107,846,000	
Allocations FY 2004	4,892,000	
Allocations FY 2005	645,000	
Conference Allowance for FY 2006	0	
Allocation for FY 2006	0	
Allocations thru FY 2006	113,383,000	69
Allocation Requested for FY 2007	800,000	70
Programmed Balance to Complete after FY 2007	5,200,000	
Unprogrammed Balance to Complete after FY 2007	\$ 43,617,000	

JUSTIFICATION: The project would protect the Mill Creek Basin from residual flood damages resulting from headwater flooding. On the average, damaging headwater floods occur about twice yearly. As the result of the small size of the Mill Creek drainage area, the basin is potentially subject to severe flooding from any type storm with limited time available for evacuation. The area contains about 3,000 acres of intensively developed land and a broad mix of industrial, commercial, and residential development, and a complex network of transportation facilities including roads, streets, interstate highways, extensive railroad yards, truck and spur lines, and utilities. Large volumes of toxic substances are stored and utilized in the flood plain by manufacturers. Flammable and volatile liquids are also present in the flood plain in large quantities. Flooding creates extreme hazards in the areas of public health, fire, and explosion. The value of property in the flood plain of Hamilton County is about \$2.7 billion (1989 values). About 5,000 persons reside and 20,000 persons are employed in the flood plain. However, the entire population of the metropolitan area of Cincinnati is adversely affected by Mill Creek flooding. The maximum flood of record occurred in March 1913 and the January 1959 flood was the second largest flood of record. A recurrence of the January 1959 flood, under current conditions of development, would cause damages estimated at \$26,661,000 (1992 values). Damaging floods also occurred in September 1979, May 1996, April 1998, and July 2001.

The project would provide protection for the developed portions of the Mill Creek flood plain for a flood having a frequency of one or more occurrences every 100 years from the barrier dam (stream mile 0.3) upstream to I-275 (stream mile 18.2). In addition, the project would provide specific-use recreation activities along the length of the Mill Creek main stem in Hamilton County.

Remedial repairs at the previously completed sections of Mill Creek (Sections 1, 2, and 4A) still need to be performed in order to turn those sections over to the Local Sponsor for operations and maintenance. Section 3 was turned over to the Sponsor for operation and maintenance in October 2004.

JUSTIFICATION (Continued)

Average annual benefits at 7 percent are estimated to be \$18,865,000 based on January 1975 price levels.

Annual Benefit	Amount
Flood Control	\$ 6,836,000
Recreation	483,000
Total	\$ 7,319,000

FISCAL YEAR 2006: No new funds were provided.

FISCAL YEAR 2007: The requested amount will be applied as follows:

Design and construct remedial repairs at Section 1, 2, & 4A, in order to turn these sections over to the Local Sponsor for operation & maintenance.	\$ 800,000
Total	\$ 800,000

NON-FEDERAL COSTS: In accordance with cost sharing and financing concepts reflected in the 1970 Flood Control Act, 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 all of lands, easements, and right-of-way of flood control facilities	\$ 16,278,000	
Modify or relocate bridges (except railroad bridges) and utilities where necessary in construction of the project and bear all costs for operation, maintenance and replacement of flood control facilities.	29,994,000	\$ 120,000
Pay a portion of the cost of the recreation facilities which, when added to the cost of recreation lands, would amount to 50 percent of the separable cost of recreation.	4,938,000	119,000
Total Non-Federal Costs	\$ 51,210,000	\$ 239,000
Division: Great Lakes & Ohio River	District: Louisville	Mill Creek, OH

STATUS OF LOCAL COOPERATION:

The Millcreek Valley Conservancy District is the responsible cooperating agency for all required assurances.

An assurance agreement covering local cooperation requirements for the project consistent with Section 221 of the 1970 Flood Control Act and the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 was executed by the Conservancy District on 6 February 1975 and for the Secretary of the Army on 28 March 1975. A recreation cost-sharing contract was executed by the Conservancy District 25 February 1975 and approved for the Secretary of the Army 28 May 1975.

Ohio Department of Natural Resources permits relating to construction of the various sections of the entire Mill Creek project have been either procured or waived.

The authorization-of-entry for Sections 7A, 3, 2, 4A, and 1 were executed by the local sponsor 20 September 1979, 14 December 1981, 20 June 1983, 24 March 1986, and 11 September 1989, respectively.

An Operation and Maintenance Agreement, wherein the Millcreek Valley Conservancy District assumes responsibility for sections for which "punch list" work has been completed, was executed on 7 August 1998.

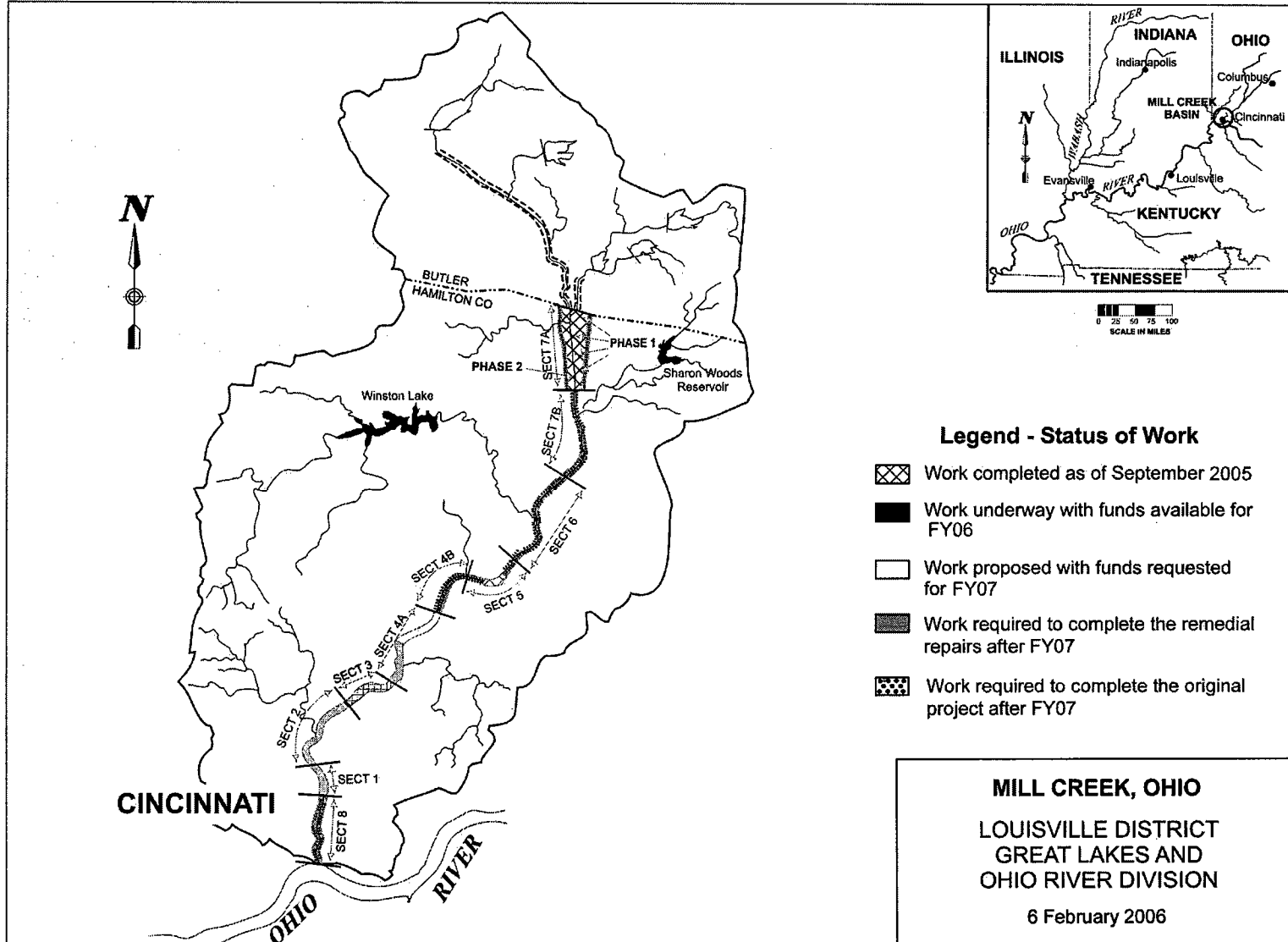
A Contributed Funds Memorandum of Agreement, wherein non-Federal public agencies contribute toward the costs of the General Reevaluation Report, was executed on 7 August 1998.

The current non-Federal cost estimate of \$51,210,000 (Oct 92) is an increase of \$30,396,000 over the approved estimate (\$20,814,000 - Oct 74) in the local cooperation agreement. This increase is based on price level adjustments.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$163,000,000 is the same as the latest estimate presented to Congress (FY 2005).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: A final Environmental Impact Statement (survey scope) was filed with CEQ on 7 October 1970, and included in the Authorization Report, House Document No. 91-413. The final Environmental Impact Statement was filed with CEQ on 17 October 1974.

OTHER INFORMATION: Funds to initiate preconstruction planning were appropriated in FY 1972 and funds to initiate construction were appropriated in FY 1975. The Flood Warning System was completed in Sep 2004. The General Reevaluation Report was completed 1 Mar 2005. Section 3 Punch List Items were completed in October 2004 and Sections 3 was turned over to the Local Sponsor for operations and maintenance. The scheduled physical completion for the entire project, last reported to Congress (FY 2005), remains To Be Determined.



APPROPRIATION TITLE: Construction, General – Major Rehabilitation (Flood Control)

PROJECT: Mississinewa Lake, Indiana (Major Rehabilitation) (Continuing)

LOCATION: The project is located on the Mississinewa River, a tributary of the Wabash River, in Wabash, Miami, and Grant Counties in north central Indiana. The lake is located approximately 65 air miles north of Indianapolis, Indiana.

DESCRIPTION: The project will provide for increased stability of the dam by constructing a concrete cut-off wall in 2,600 feet of embankment to a depth ranging from 150 to 180 feet penetrating 5 feet into the rock foundation. The cut-off wall will prevent further loss of the embankment or overburden foundation materials into the untreated rock foundation and restore the project to full operational capability. The existing reservoir was constructed to reduce flood damages downstream of the project within the upper Wabash River Basin, and was placed in operation in October 1967. The dam is earth fill and is 8,000 feet long and 140 feet high. The top elevation of the dam is 797 feet msl. Maximum flood control storage capacity is 368,400 acre-feet.

AUTHORIZATION: Flood Control Act of 1958.

REMAINING BENEFIT-COST RATIO: 7.0 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 1.5 to 1 at 7 percent.

INITIAL BENEFIT-COST RATIO: 1.9 to 1 at 6 7/8 percent (FY 2001).

BASIS OF BENEFIT-COST RATIO: Mississinewa Dam Major Rehabilitation Report, dated May 2000 with July update.

SUMMARIZED FINANCIAL DATA		STATUS (1 Jan 2006)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	\$ 63,528,000	Entire Project	85	June 2006
Estimated Non-Federal Cost	0	PHYSICAL DATA		
Cash Contribution	0	Dam: Length - 8,000 ft, Height - 140 ft		
Other Costs	0	Drainage Area 809 sq mi		
Total Estimated Project Cost	\$ 63,528,000	Flood Pool 779 ft (12,830 acres)		
		Winter Pool 712 ft (1,280 acres)		
		Summer Pool 737 ft (3,180 acres)		

SUMMARIZED FINANCIAL DATA (Continued):

Division: Great Lakes & Ohio River

District: Louisville

Mississinewa Lake, IN
(Major Rehabilitation)

		ACCUM. PCT OF EST. FED. COST
Allocations to 30 September 2003	\$ 27,925,000	44
Allocations for FY 2004	11,802,000	63
Allocations for FY 2005	13,365,000	81
Conference Allowance for FY 2006	4,481,000	
Allocation for FY 2006	4,436,000 1/	
Allocations through FY 2006	57,528,000	91
Allocation Requested for FY 2007	\$ 6,000,000	100
Programmed Balance to Complete after FY 2007	0	
Unprogrammed Balance to Complete after FY 2007	0	

1/ Reflects \$45,000 rescinded in accordance with the Department of Defense, Emergency Supplemental Appropriations to Address Hurricanes in the Gulf of Mexico, and Pandemic Influenza Act, 2006, P.L. 109-148.

JUSTIFICATION: The Mississinewa Lake Project was completed in October 1967. During the latter stages of construction in late 1966, a boil was discovered at the toe of the dam. Remedial actions were taken and the boil area was stabilized. In April 1988, settlement of roadway guardrail and the road across the top of the dam first appeared. A monitoring program was initiated and has continued to the present. Further subsurface investigations revealed a 0.8-foot settlement of a portion of the dam. In May 1999, monitoring wells on the dam revealed that downward stresses are actively compressing the embankment in the area of the settlement and threatening the integrity of the structure. Analysis of the problem has shown the upper layer of rock foundation contains excessive voids requiring pre-treatment with grout to enable the cut-off wall excavation to then proceed with minimal slurry loss. The dam itself remains stable at this time; however, the settlement is continuing and is considered a "failure in progress", which under certain circumstances could become an "emergency" due to possible dam failure. The rehabilitation project includes the placement of a 2,600-foot concrete cut-off wall along the full right embankment. It will extend to depths ranging from 150 to 180 feet, penetrating 5 feet into the rock foundation.

Average annual benefits at 7 percent are as follows:

Annual Benefits	Amount
Flood Control	\$ 7,156,000
Recreation	1,066,000
Total	\$ 8,222,000

FISCAL YEAR 2006: The allocated amount will be applied as follows:

Division: Great Lakes & Ohio River

District: Louisville

Mississinewa Lake, IN
(Major Rehabilitation)

Continue Construction Contract	\$ 4,226,000
Planning, Engineering, and Design	60,000
Construction Management	150,000
Total	\$ 4,436,000

FISCAL YEAR 2007: The requested amount will be applied as follows:

Complete Construction Contract	\$ 5,900,000
Construction Management	100,000
Total	\$ 6,000,000

NON-FEDERAL COSTS: Funding for this project will be 100% Federal responsibility.

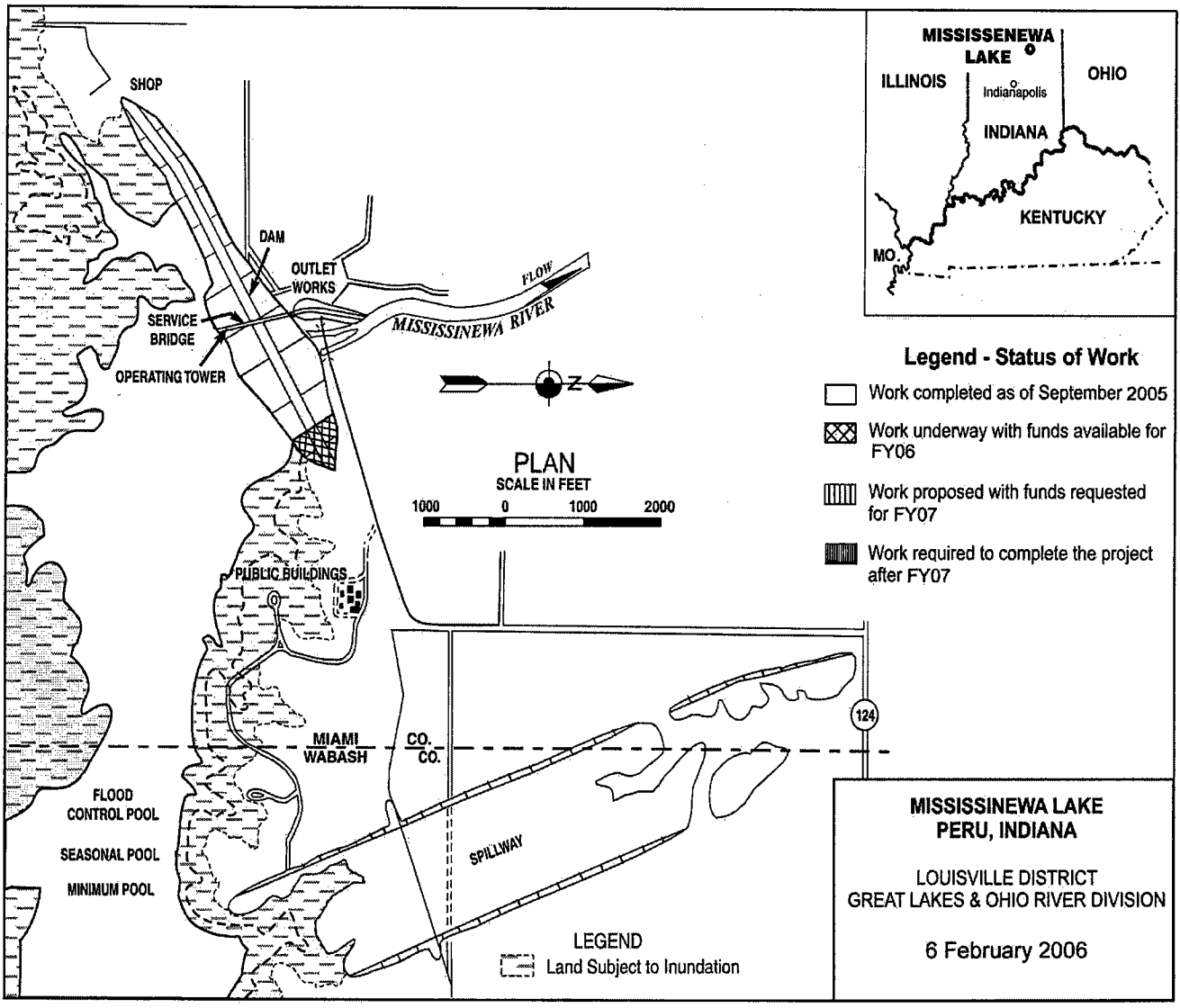
STATUS OF LOCAL COOPERATION: None

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$63,528,000 is an increase of \$8,528,000 from the latest estimate (\$55,000,000) presented to Congress (FY 2006). The change includes the following items:

Item	Amount
Post contract award and other estimating adjustments	\$ 8,528,000
Total	\$ 8,528,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The proposed action consists of a repair to an existing operating project. An Environmental Assessment has been completed and a Finding of No Significant Impact was signed by the District Engineer 14 Mar 2000. An Environmental Impact statement is not required.

OTHER INFORMATION: Funds to initiate construction were provided in FY 2001. The Mississinewa Lake Dam Safety/Major Rehabilitation Report was approved by ASA (CW) 5 January 2001. The scheduled completion date has changed from the latest presented to Congress (FY 2006), "To Be Determined" to Jan 2007. Critical areas of the cut-off wall are completed and the lake has been returned to normal summer pool beginning in April 2005. Remaining work will complete in 2006. Finalized modifications and contract close-out will occur in FY 2007.



APPROPRIATION TITLE: Construction, General – Flood Control (Dam Safety Assurance)

PROJECT: Rough River Lake, KY (Dam Safety Assurance) (Continuing)

LOCATION: Dam is on Rough River, 89.3 miles above its confluence with Green River, 160.3 miles above Ohio River, and about 60 miles southwest of Louisville, KY.

DESCRIPTION: The work consists of correcting three deficiencies in the dam. The outlet bucket and training walls will be lengthened. The effective height of the dam will be raised 5 feet by a combination of raising the road across the dam by 2 feet and placing a 3-foot tall concrete "Jersey" barrier on the upstream side of the road to replace the existing guardrails. Remediation of the rock toe will consist of excavating the affected toe of the embankment in order to place an appropriate filter.

AUTHORIZATION: Construction of the existing project was originally authorized under the general authorization for the Ohio River Basin contained in the Flood Control Act approved June 28, 1938.

REMAINING BENEFIT-REMAINING COST RATIO: 7.4 to 1 at 7 percent

TOTAL BENEFIT-COST RATIO: 6.8 to 1 at 7 percent

INITIAL BENEFIT-COST RATIO: 60.7 TO 1 at 6 1/8 percent

BASIS OF BENEFIT COST RATIO: Benefits are from the Dam Safety Assurance Program Evaluation Report approved 1 July 2004 at January 2004 price level.

SUMMARIZED FINANCIAL DATA		STATUS (1 Jan 2006)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	4,963,000	Construction	10	Sep 2007
Estimated Non-Federal	0			
Cash Contribution	0			
Other Costs	0			
Total Estimated Project Cost	4,963,000			
			PHYSICAL DATA	
		Dam: Length	1,590 ft.	Height - 130 ft
		Drainage Area	454 square miles	
		Flood Pool	524	
		Winter Pool	470	
		Summer Pool	495	

Division: Great Lakes and Ohio River

District: Louisville

Rough River Lake, KY
Dam Safety Assurance

SUMMARIZED FINANCIAL DATA (Cont'd)

		ACCUM. PCT OF EST. FED. COST
Allocations to 30 September 2003	0	
Allocations for FY 2004	25,000	
Allocations for FY 2005	472,000	
Conference Allowance for FY 2006	2,500,000	
Allocation for FY 2006	2,475,000 1/	
Allocations through FY 2006	2,972,000	60
Allocation Requested for FY 2007	1,991,000	100
Programmed Balance to Complete after FY 2007	0	
Unprogrammed Balance to Complete after FY 2007	0	

1/ Reflects \$25,000 rescinded in accordance with the Department of Defense, Emergency Supplemental Appropriations to Address Hurricanes in the Gulf of Mexico, and Pandemic Influenza Act, 2006, P.L. 109-148.

JUSTIFICATION: The existing outlet bucket does not allow adequate dissipation of energy from reservoir discharges resulting in expensive periodic repairs to the concrete-paved apron. To prevent future damages and possible failure during a Probable Maximum Flood storm event, the outlet bucket and training walls need to be lengthened to allow for adequate energy dissipation. Baffle blocks placed inside the basin will also be required. The emergency spillway is hydrologically inadequate based on current design standards. The possibility of dam overtopping and failure exists with the Probable Maximum Flood storm event. Recommended solution is to raise the effective height of the dam by 5 feet by a combination of raising the road across the dam by 2 feet and placing a 3-foot-tall concrete "Jersey" barrier on the upstream side of the road to replace the existing guardrails. The dam was constructed without a filter between the earth embankment and the porous rock toe. Some of the embankment soil is migrating into the porous rock toe, and a sinkhole (fall 2002) and numerous depressions have developed on the downstream slope. Further migration of soil particles into the rock toe will create more voids that will continue to deteriorate the earth embankment and will eventually produce conditions, which may promote instability of the dam. Remediation of the rock toe is anticipated to consist of excavating the affected toe of the embankment in order to place an appropriate filter. The excavated embankment material would be replaced with new engineered fill to restore to the existing downstream slope geometry. Filter and new fill placement may be extended over the exposed downstream portion of the rock toe to minimize surface water infiltration.

Average annual benefits at 7 percent are as follows:

Annual Benefits	Amount
Flood Control	\$ 4,482,000
Recreation	13,479,000
Total	\$ 17,961,000

FISCAL YEAR 2006: The allocated amount will be applied as follows:

Award Road/Rock Toe Contract	\$ 2,000,000
Award Outlet Works Contract	192,500
Planning, Engineering & Design	129,100
Construction Management	153,400
Total	\$ 2,475,000

FISCAL YEAR 2007: The requested amount will be applied as follows:

Complete Outlet Works Contract	\$ 1,838,000
Planning, Engineering & Design	22,000
Construction Management	131,000
Total	\$ 1,991,000

NON-FEDERAL COSTS: Funding for this project will be 100% Federal responsibility

STATUS OF LOCAL COOPERATION: None

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$4,963,000 is an increase of \$263,000 from the latest estimate (\$4,700,000) presented to Congress (FY 2006) for construction. The change includes the following items:

Item	Amount
Price Escalation on Construction Features	\$263,000
Total	\$263,000

Division: Great Lakes and Ohio River

District: Louisville

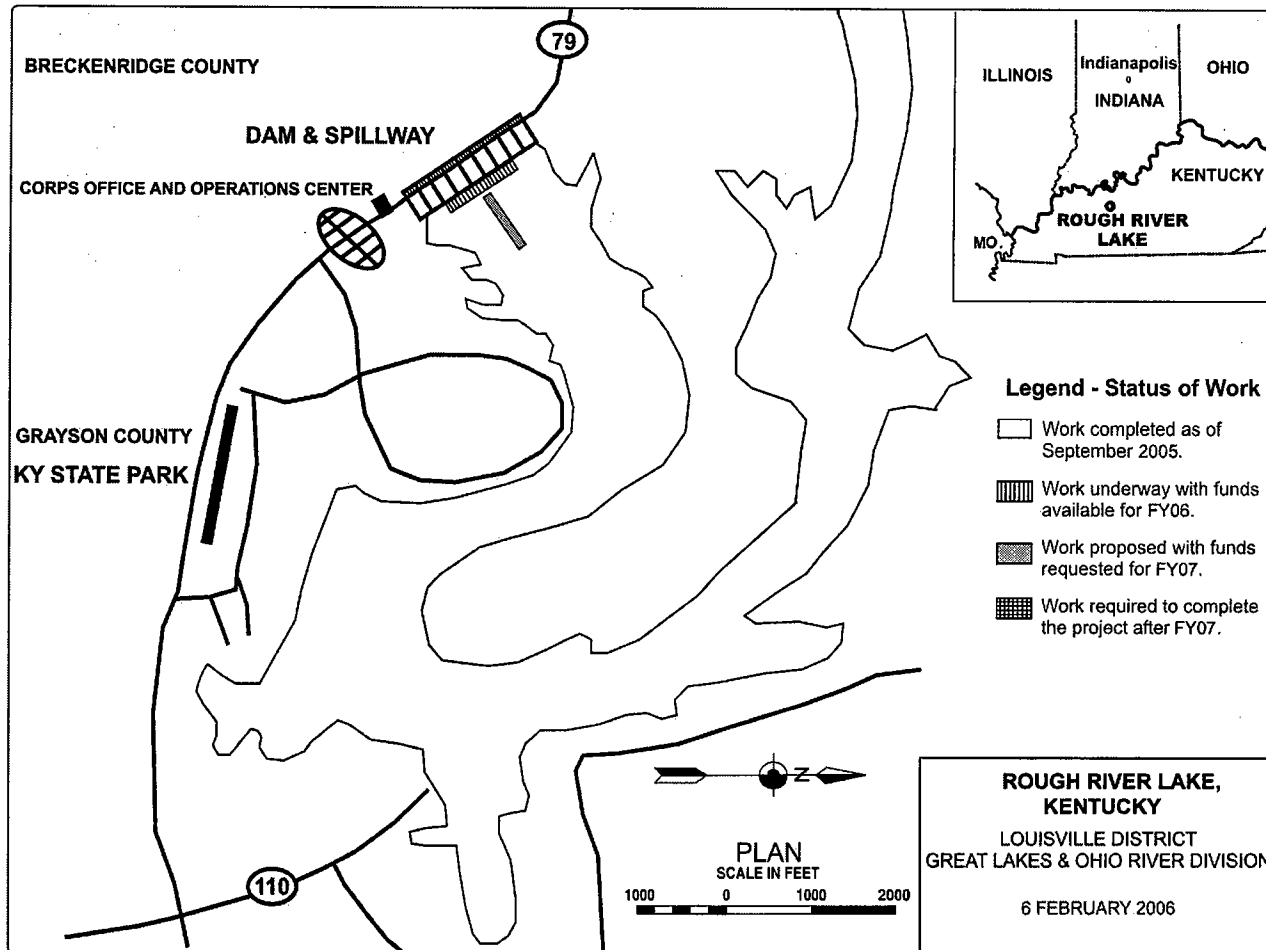
Rough River Lake, KY
Dam Safety Assurance

6 February 2006

99

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: Environmental Assessment is complete. Finding of No Significant Impact signed 18 May 2004.

OTHER INFORMATION: By memorandum dated 18 August 2004, the Assistant Secretary of the Army (Civil Works) concurred with using Construction, General funds from the Dam Safety and Seepage/Stability Correction Program in Fiscal Years 2004 and 2005 to continue engineering and design and start plans and specifications. The scheduled completion date has not changed from the latest presented to Congress (FY2006) which is September 2007.



APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: Saw Mill Run, Pittsburgh, Pennsylvania (Continuing)

LOCATION: Saw Mill Run is a tributary to and enters the Ohio River from the left descending bank at River Mile 0.7. The project is located at the mouth of Saw Mill Run in the West End area of the city of Pittsburgh, Pennsylvania in Allegheny County.

DESCRIPTION: The proposed Saw Mill Run Local Flood Protection Project extends 4,700 feet from the stream's mouth. The work consists of channel deepening and realignment, channel paving, streambank stabilization, gravity and retaining walls, utility relocations, and the installation of two upstream flood warning gages. All work is programmed.

AUTHORIZATION: Water Resource Development Act of 1986 (Public Law 99-662), as modified by Water Resources Development Act of 1996(PL 104-137) and by Section 147 of the Energy and Water Appropriations Act (PL 108-137) .

REMAINING BENEFIT - REMAINING COST RATIO: 4.3 to 1 at 7 percent.

TOTAL BENEFIT - COST RATIO: 0.72 to 1 at 7 percent.

BASIS OF BENEFIT - COST RATIO: Benefits are from the Saw Mill Run Flood Protection Project General Reevaluation Report, dated January, 1994, at October, 1993 price levels.

SUMMARIZED FINANCIAL DATA	STATUS (24 JAN 2006)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE	
Estimated Federal Cost	\$17,250,000	Entire Project	80	September 2007
Programmed Construction	\$17,250,000			
Unprogrammed Construction				
Estimated Non-Federal Cost	\$ 5,750,000	PHYSICAL DATA		
Programmed Construction	\$5,750,000	Common Excavation	67,000 CY	
Cash Contributions	\$ 4,320,000	Rock Excavation	780 CY	
Other Costs	\$ 1,430,000	Dredging	1,900 CY	
Unprogrammed Construction	0	Compacted Fill	4,300 CY	
Cash Contributions	\$ 0	Concrete Gravity Wall	590 CY	
Other Costs	0	Post and Panel Walls	1 Job	
Total Estimated Programmed Construction	\$23,000,000			

Division: Great Lakes & Ohio River

District: Pittsburgh

Saw Mill Run, Pittsburgh, PA

6 February 2006

102

SUMMARIZED FINANCIAL DATA (continued):

		ACCUM. PCT.OF EST. FED.COST
Total Estimated Unprogrammed Construction	0	
Total Estimated Project Cost	\$ 23,000,000	
Allocations to 30 September 2003	\$ 12,644,000 1/	
Allocations for FY 2004	\$ 1,300,000	
Allocations for FY 2005	\$ 430,000	
Conference Allowance for FY 2006	\$ 750,000	
Allocation for FY 2006	\$ 742,000 2/	
Allocation through FY 2006	\$ 15,116,000	88
Allocation requested for FY 2007	\$ 2,300,000	100
Programmed Balance to Complete after FY 2007	0	
Unprogrammed Balance to Complete after FY 2007	0	

1/ Includes \$2,008,000 GI and \$10,636,000 CG.

2/ Reflects \$8,000 rescinded in accordance with the Department of Defense, Emergency Supplemental Appropriations to Address Hurricanes in the Gulf of Mexico, and Pandemic Influenza Act, 2006, P.L. 109-148.

JUSTIFICATION: Saw Mill Run drains an area of 19.4 square miles in Allegheny County, Pennsylvania, with the lower half of the drainage area located within the Pittsburgh city limits. The topography is hilly and the flood plain is narrow, with about 75 percent of the basin in areas of urban development. The proposed project is designed to protect a combination of residential, commercial and light industrial properties, valued at \$13,200,000, from flooding. The maximum flood of record occurred in 1943, at which time flood damages of approximately \$300,000 (1993 value \$6,000,000) were incurred. Low level flooding has occurred regularly in the drainage area during periods of moderate rain. The project will provide protection from the 20 year flood event. The average annual damages are \$94,000 with the project and \$1,103,000 without the project.

FISCAL YEAR 2006: FY 2006 funds will be used to complete the design package for the 20 year level of protection.

FISCAL YEAR 2007: The requested amount will be applied as follows:

Complete Construction	\$ 1,900,000
Complete Planning, Engineering, and Design	150,000
Complete Construction Management	250,000
Total	\$ 2,300,000

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	Annual Operation, Payments during Construction and Reimbursements	Maintenance, Repair, Replacement, and Rehabilitation Costs
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas.	\$ 960,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	470,000	
Pay approximately 19 percent of the cost 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, replacement, and rehabilitation.	4,320,000	83,000
Total Non-Federal Costs	\$ 5,750,000	\$ 83,000

The non-Federal sponsor will be required to make all payments concurrently with project construction.

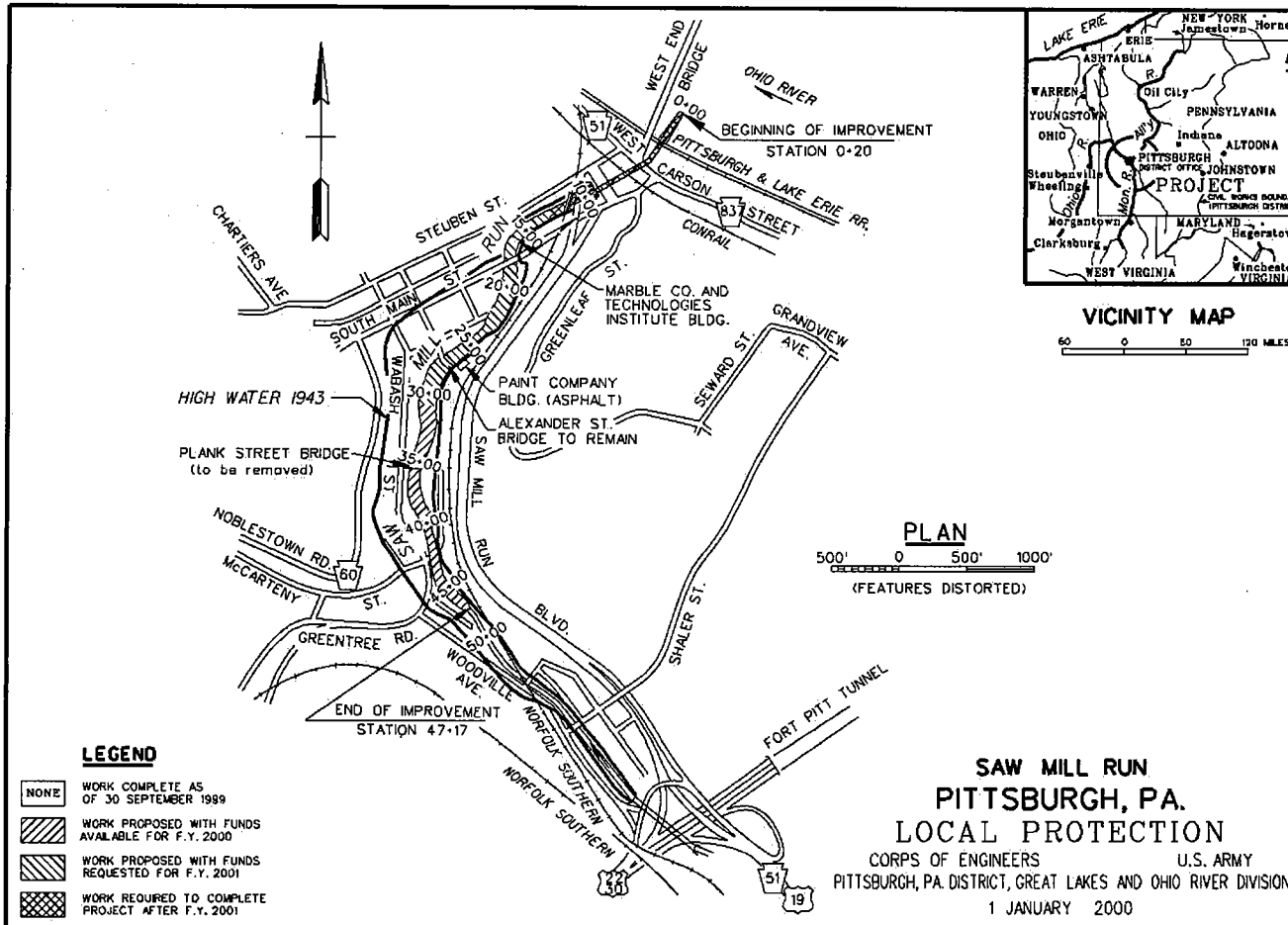
STATUS OF LOCAL COOPERATION: The non-federal cost sharing partner is the city of Pittsburgh, Pennsylvania. By letter dated January 19, 1993, the city expressed its assurance that it would serve as the local sponsor for the project, if funded for construction. The Project Cooperation Agreement was executed in October 1997. Real Estate acquisition, to be done by the Corps for the City of Pittsburgh, was initiated in FY 1998 and completed in FY 2000. The first construction contract was awarded in February 2001.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$17,250,000 is an increase of \$750,000 from the latest estimate (\$16,500,000) presented to Congress in FY 2006. This change includes the following items:

Item	Amount
Price Escalation on Construction Features	\$500,000
Post Contract Award and other Estimating Adjustments	\$250,000
Total:	\$750,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An environmental assessment was completed during the reevaluation study, and a signed Finding of No Significant Impacts (FONSI) was included in the General Reevaluation Report, dated January, 1994.

OTHER INFORMATION: The scheduled physical completion date is September 2007.



APPROPRIATION TITLE: Construction General – Dam Safety Assurance, Major Rehabilitation

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

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

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 Report dated 11 July 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 final approval of the Major Rehabilitation Evaluation Report was made 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, 3d session).

REMAINING BENEFIT-REMAINING COST RATIO: 7.1 at 5 3/8 percent.

TOTAL BENEFIT-COST RATIO: 7.1 at 5 3/8 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 2006)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		\$307,600,000			
Programmed Construction	\$307,600,000		Entire Project	0	September 2014
Total Estimated Project Cost		\$307,600,000			

PHYSICAL DATA

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

Division: Great Lakes and Ohio River

District: Nashville

Wolf Creek Dam Safety Major Rehabilitation, Kentucky

6 February 2006

SUMMARIZED FINANCIAL DATA (Continued)

		ACCUM. PCT. OF EST FED. COST
Allocations to 30 September 2003	0	
Allocations for FY 2004	0	
Allocations for FY2005	100,000 <u>1/</u>	
Conference Allowance for FY 2006	6,600,000 <u>1/</u>	
Allocation for FY 2006	6,600,000 <u>1/</u>	
Allocations through FY 2006	6,700,000 <u>1/</u>	2%
Allocation Requested for FY 2007	31,000,000	
Programmed Balance to Complete after FY 2007	269,900,000	

1/ Funded from Dam Safety and Seepage/Stability Correction Program.

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 55-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 2006: The requested amount will be applied as follows:

Relocations	\$ 3,900,000
Planning, Engineering, and Design	2,500,000
Construction Management	200,000
Total	\$ 6,600,000

FISCAL YEAR 2007: The requested amount will be applied as follows:

Dams	\$ 26,100,000
Planning, Engineering, and Design	3,000,000
Construction Management	1,900,000
Total	\$ 31,000,000

Division: Great Lakes and Ohio River

District: Nashville

Wolf Creek Dam Safety Major Rehabilitation, Kentucky

6 February 2006

STATUS OF LOCAL COOPERATION: The proposed project is designed as a reliability-based improvement. There are no anticipated efficiency benefits. The proposed 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 \$307,600,000 is the initial estimate submitted to Congress.

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.

OTHER INFORMATION: ASA(CW) concurred with the report recommendations on August 17, 2005 and directed that the project be included as a continuing project in the FY 2007 Construction General Budget Request.



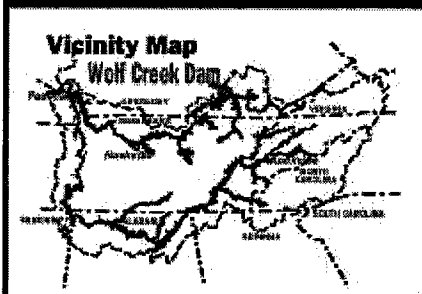
Great Lakes &
Ohio River Division
Nashville District

Wolf Creek Seepage Major Rehabilitation

2 - Halcombs
Landing

3 - Cutoff Wall
Construction

1 - Design Only



Legend - Status of Work by Major Construction Feature

- 1 Work completed as of 30 Sep 2005
- 2 Work proposed with funds received in FY 2006
- 3 Work proposed with funds requestd for FY 2007
- 3 Work required to complete project after FY 2007

February 2006

FLOOD AND COASTAL STORM DAMAGE REDUCTION

CONSTRUCTION

MISSISSIPPI RIVER AND TRIBUTARIES

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.

TOTAL BENEFIT-COST RATIO: 3.8 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.

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST	STATUS (1 Jan 2006)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		\$1,779,000,000		Entire Project	95 Physical	TBD
Estimated Non-Federal Cost		\$ 11,000,000				
Cash Contributions	\$2,500,000					
Other Costs	8,500,000					
Total Estimated Project Cost		\$1,790,000,000				
Allocations to 30 September 2003		\$ 939,350,000				
Allocation for FY 2004		17,854,000				
Allocation for FY 2005		19,663,000				
Conference Allowance for FY 2006		19,000,000				
Allocation for FY 2006		18,810,000	1/ 56			
Allocations through FY 2006		995,677,000				
Allocation Requested for FY 2007		\$ 27,600,000	58			
Programmed Balance to Complete after FY 2007		755,723,000				
Unprogrammed Balance to Complete after FY 2007		0				

1/ Reflects reductions assigned as \$190,000 rescission in accordance with the Department of Defense, Emergency Supplemental Appropriations to Address Hurricanes in the Gulf of Mexico, and Pandemic Influenza Act, 2006.

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 authorized works against the design flood is \$159.4 billion in 2005 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 \$12.0 billion damages in 2006 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 \$12.1 billion and total damages prevented by projects amount to \$11.3 billion. Expressed in 2006 prices, damages without the projects would have been \$43.5 billion and damages prevented would have been \$40.8 billion.

The benefit-cost ratio was derived by measuring the total benefits credited to those Main Stem components against their total cost. Average annual benefits for the composite of Main Stem features are as follows:

Annual Benefits	Amount @ 2.5%	Amount @ 7%
Flood Control	\$ 1,372,231,000	\$ 470,224,000
Navigation	291,680,000	132,965,000
Area Redevelopment	2,480,000	1,208,000
Recreation	3,433,000	3,234,000
Total	\$ 1,669,824,000	\$ 607,631,000

FISCAL YEAR 2006: Current year funds are being used as follows:

E33 Levee Enlargement, 2 nd Lift	1,850,000
Gordy PS Discharge Lines	1,300,000
West Bayou Sale Gordy Levee	3,900,000
W102 Levee Enlargement	1,500,000
E69/E73 Levee Enlargement	165,000
W52 Levee Enlargement, 2 nd Lift	587,000
Wax Lake Outlet East	1,351,000
Melville	1,400,000
Krotz Springs Front	430,000
Lands and Damages	275,000
Surveys and Layouts	100,000
Planning, Engineering and Design	4,152,000
Construction Management	1,800,000
Total	\$18,810,000

FISCAL YEAR 2007: The requested amount will be applied as follows:

West Bayou Sale North Bend	\$ 3,876,000
W74 Levee Enlargement	7,500,000
W86 Levee Enlargement	1,800,000
Highway 317 Ramp @ Gordy	1,200,000
Wax Lake Outlet North of Hwy 90	500,000
E33 Levee Enlarge, 2 nd Lift	4,040,000
Lands and Damages	300,000
Relocations	275,000
Surveys and Layouts	100,000
Planning, Engineering and Design	6,009,000
Construction Management	2,000,000
Total	\$27,600,000

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.	\$ 1,110,000	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
Mississippi River Commission	Memphis, Vicksburg, and New Orleans Districts	Atchafalaya Basin, LA

6 February 2006

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	\$11,000,000	\$3,700,000

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 \$1,779,000,000 is an increase of \$17,000,000 from the latest estimate (\$1,762,000,000) presented to Congress (Fiscal Year 2006). This change includes the following items:

Item	Amount
Price Escalation on Construction Features	\$ + 6,400,000
Design Changes	7,322,000
Post Contract Award and Other Estimating Adjustments	- 7,332,000
Price Escalation on Real Estate	+ 10,600,000
Total	\$ + 17,000,000

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.

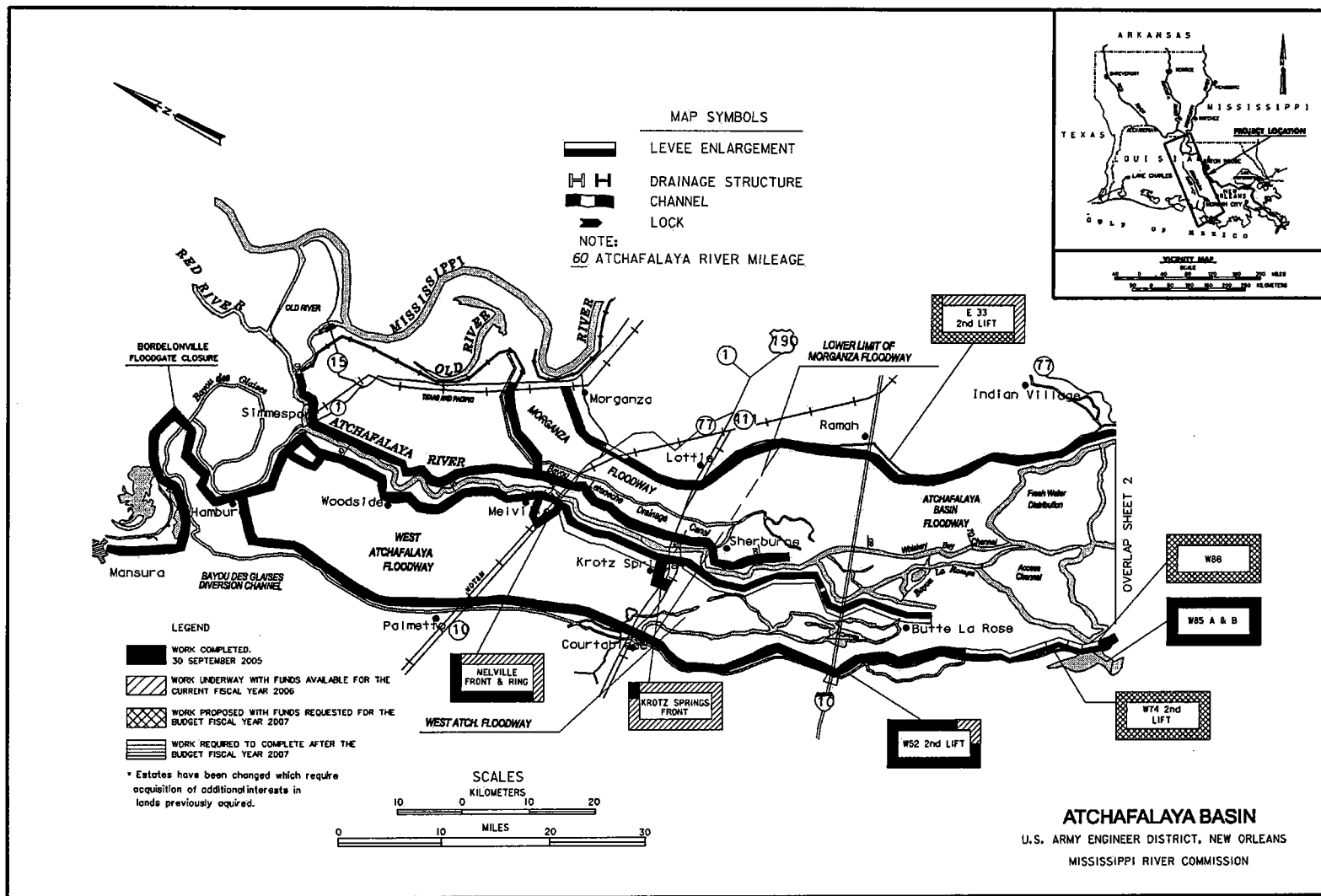
OTHER INFORMATION: Funds to initiate construction were appropriated in 1928.

Mississippi River Commission

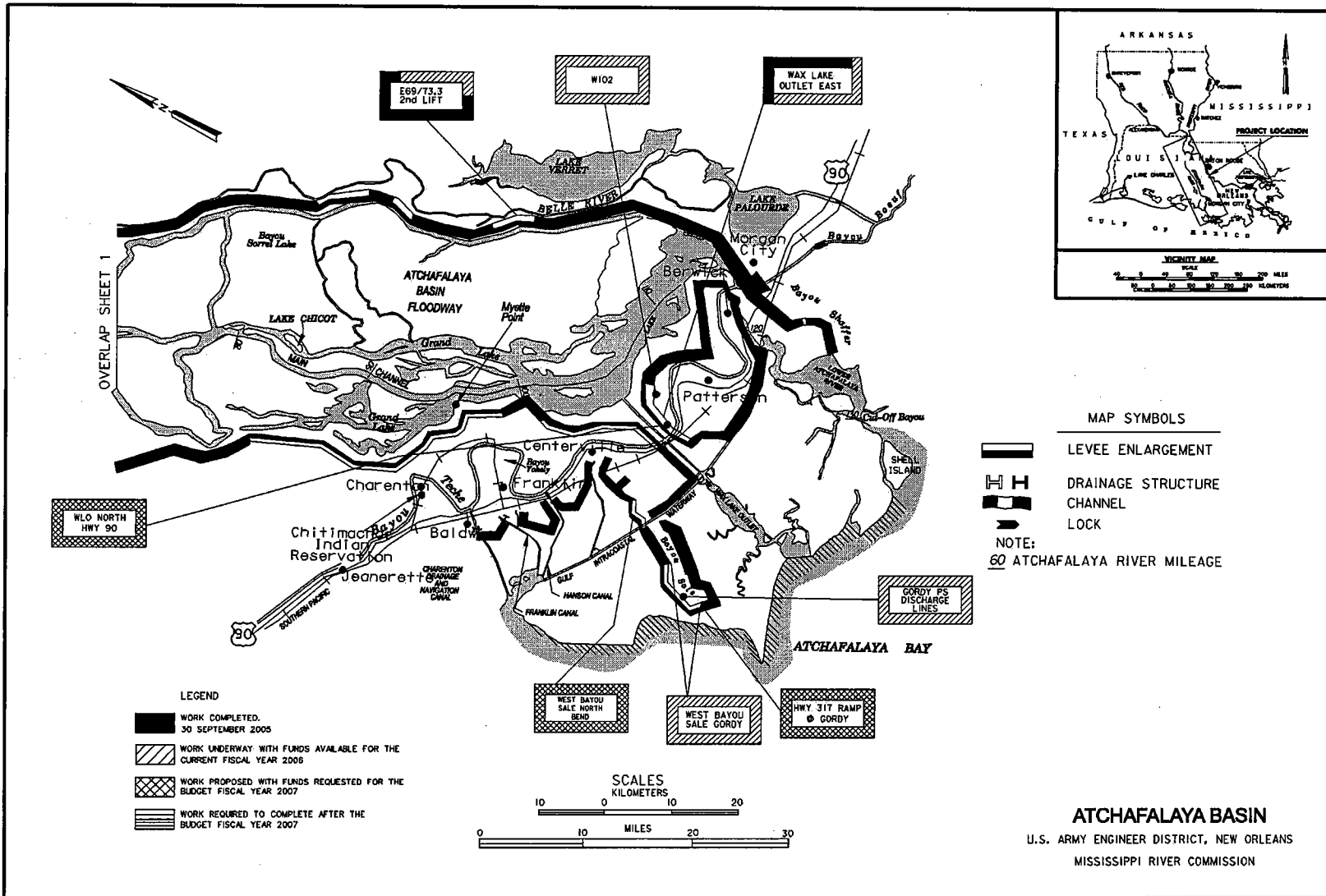
Memphis, Vicksburg, and
New Orleans Districts

Atchafalaya Basin, LA

6 February 2006



SHEET 1 OF 2



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: 6.5 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 3.8 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.

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST	STATUS (1 Jan 2006)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	\$3,995,000,000		Entire Project	93	TBD
Estimated Non-Federal Cost	\$ 1,900,000				
Cash Contributions	\$1,800,000				
Other Costs	100,000				
Total Estimated Project Cost	\$3,996,900,000				PHYSICAL DATA
Allocations to 30 September 2003	\$2,686,749,000		Lands and Damages		19,135 acres
Allocation for FY 2004	34,393,000		Revetments		1,085 miles
Allocation for FY 2005	36,356,000		Dikes		339 miles
Conference Allowance for FY 2006	43,000,000		Dredging		As required
Allocation for FY 2006	63,570,000	1/	Foreshore Protection		160 miles
Allocations to 30 September 2006	2,821,068,000	.71	Pumping Station		1
Allocation Requested for FY 2007	43,092,000	72			
Programmed Balance to Complete After FY 2007	\$1,130,840,000				
Unprogrammed Balance to Complete After FY 2007	0				

1/ Reflects \$430,000 rescission and \$21,000,000 supplemental funding in accordance with the Department of Defense, Emergency Supplemental Appropriations to address Hurricanes in the Gulf of Mexico, and Pandemic Influenza Act, 2006.

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 a single 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 \$159.4 billion in 2005 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 \$12.0 billion in damages in 2006 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 \$12.1 billion and total damages prevented by projects amounted to \$11.3 billion. Expressed in 2006 prices, damages without the projects would have been \$43.5 billion and damages prevented would have been \$40.8 billion.

The benefit-cost ratio was derived by measuring the total benefits credited to those Main Stem components against their total cost. Average annual benefits for the composite of Main Stem features are as follows:

Annual Benefits	Amount @ 2.5 %	Amount @ 7%
Flood Control	\$ 1,372,231,000	\$ 470,224,000
Navigation	291,680,000	132,965,000
Area Redevelopment	2,480,000	1,208,000
Recreation	3,433,000	3,234,000
Total	\$ 1,669,824,000	\$ 607,631,000

FISCAL YEAR 2006: Current funds are being used as follows:

Revetments	\$ 41,992,000
Dikes	21,578,000
Total	\$ 63,570,000

Revetments: The planned program consists of items of work for which funds will be required as follows:

Lands and Damages	\$ 125,000
Construction of Revetments	36,186,000
Cultural Resources	40,000
Planning, Engineering, and Design	4,924,000
Construction Management	717,000
Total	41,992,000

The items of revetment work are:

Approximate length in feet:

Heloise, TN	2,000
Richardson Landing, TN	1,000
Cedar Point – Densford, TN	800
Scrubgrass, MS	1,800
Bougere, LA	1,750
Refuge, AR	1,500
Carolina, MS	1,825
Reinforcement	7,000

Dikes: The planned dike work consists of the following items:

Randolph, TN	\$ 3,117,000
Moore Island, MO / Below Williams, KY	952,000
Dismal Point, AR	300,000
Oldtown, AR	129,000
Stewart Towhead, MO	1,400,000
Below Cherokee, TN	150,000
Below Sunrise, AR	900,000
Lookout Point, AR-TN	1,200,000
Island 67, MS	500,000
Cottonwood Trench Fill, AR	2,049,000
Anconia, MS	756,000
Seven Oaks, AR	1,775,000
Island 86, MS	599,000
Ben Lowman, MS	2,400,000
Tarpley Island, MS	1,686,000
Lands and Damages	25,000
Cultural Resources	40,000
Planning, Engineering, and Design	2,800,000
Construction Management	800,000
Total	\$21,578,000

FISCAL YEAR 2007: The requested amount will be applied as follows:

Revetments	\$ 26,695,000
Dikes	16,397,000
Total	\$ 43,092,000

Revetments: The planned program consists of items of work for which funds will be required as follows:

Lands and Damages	\$ 125,000
Construction of Revetments	18,475,000
Cultural Resources	40,000
Planning, Engineering, and Design	7,255,000
Construction Management	800,000
Total	26,695,000

The items of revetment work are:

Approximate length in feet:

Hickman Bar, KY	1,000
Obin-Tamm, TN	1,500
Ensley, TN	1,800
Norfolk Star, MS	1,600
Racetrack, MS	1,500
Bougere, LA	1,750
Refuge, AR	1,500
Lake Concordia, MS	3,000
Reinforcement	9,250

Dikes: The planned dike work consists of the following items:

Randolph, TN	\$ 2,500,000
Lower Bullerton, AR	1,000,000
Nebraska Point, AR	800,000
Wolf Island, MO	500,000
Dismal Pt. Hardpoints, AR	300,000
Below Yellow Bend, AR	853,000
Bondurant, LA	1,500,000
Lower Cracraft, AR	740,000
Island 70, MS	1,415,000
Island 86, MS	599,000
Island 84, AR	2,125,000
Lands and Damages	25,000
Cultural Resources	40,000
Planning, Engineering, and Design	3,000,000
Construction Management	1,000,000
Total	\$16,397,000

Mississippi River Commission

Memphis, Vicksburg, and
New Orleans Districts

Channel Improvement, AR, IL,
KY, LA, MS, MO, and TN

6 February 2006

127

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.	1,800,000	\$ 191,667
Total Non-Federal Costs	\$ 1,900,000	\$ 191,667

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 \$3,995,000,000 is an increase of \$27,000,000 from the latest estimate (\$3,968,000,000) presented to Congress (FY 2006). This change includes the following items:

Item	Amount
Price Escalation on Construction Features	\$ 26,552,000
Post Contract Award and Other Estimating Adjustments	398,000
Price Escalation on Real Estate	50,000
Total	\$ 27,000,000

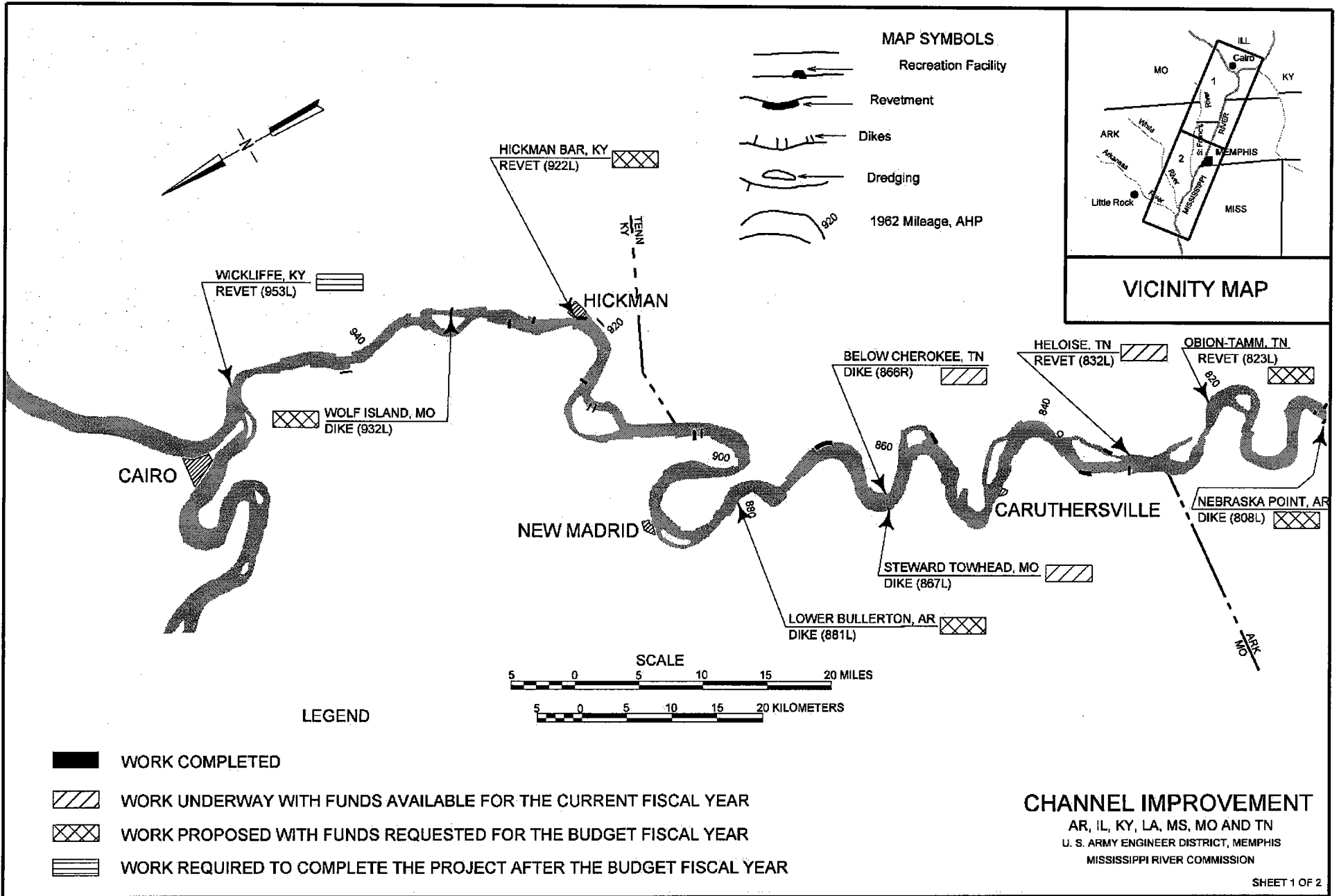
STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Final Environmental Impact Statement was filed with the Council on Environmental Quality on 16 April 1976.

OTHER INFORMATION: Initial construction funds were appropriated in Fiscal Year 1928.

Mississippi River Commission

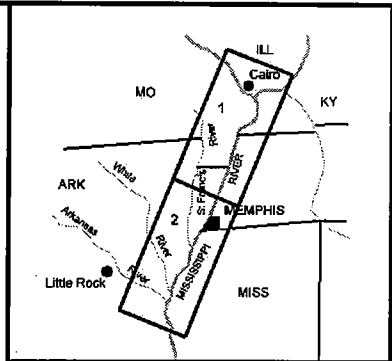
Memphis, Vicksburg, and
New Orleans Districts

Channel Improvement, AR, IL,
KY, LA, MS, MO, and TN



MAP SYMBOLS

- Recreation Facility
- Revetment
- Dikes
- Dredging
- 1962 Mileage, AHP



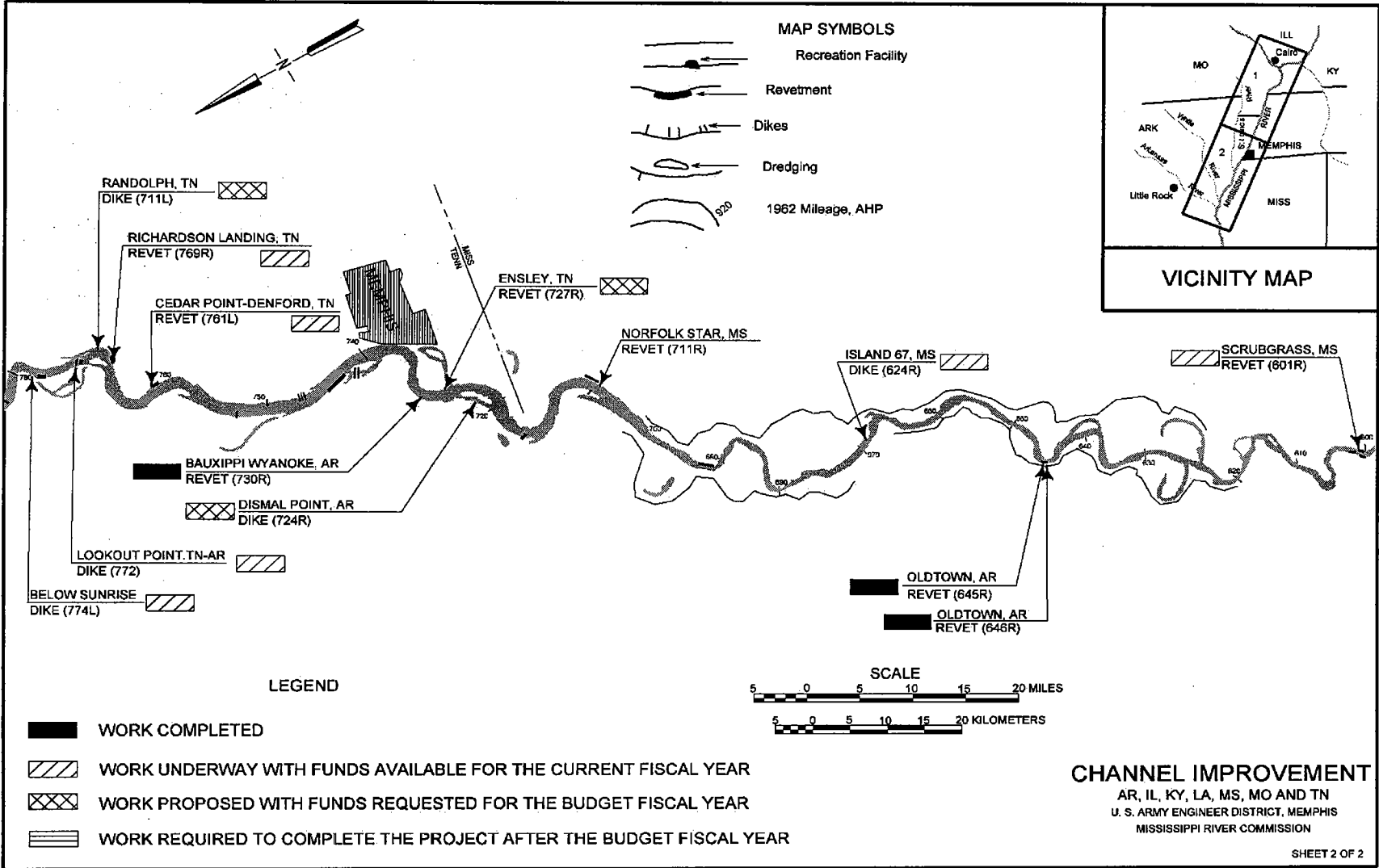
VICINITY MAP

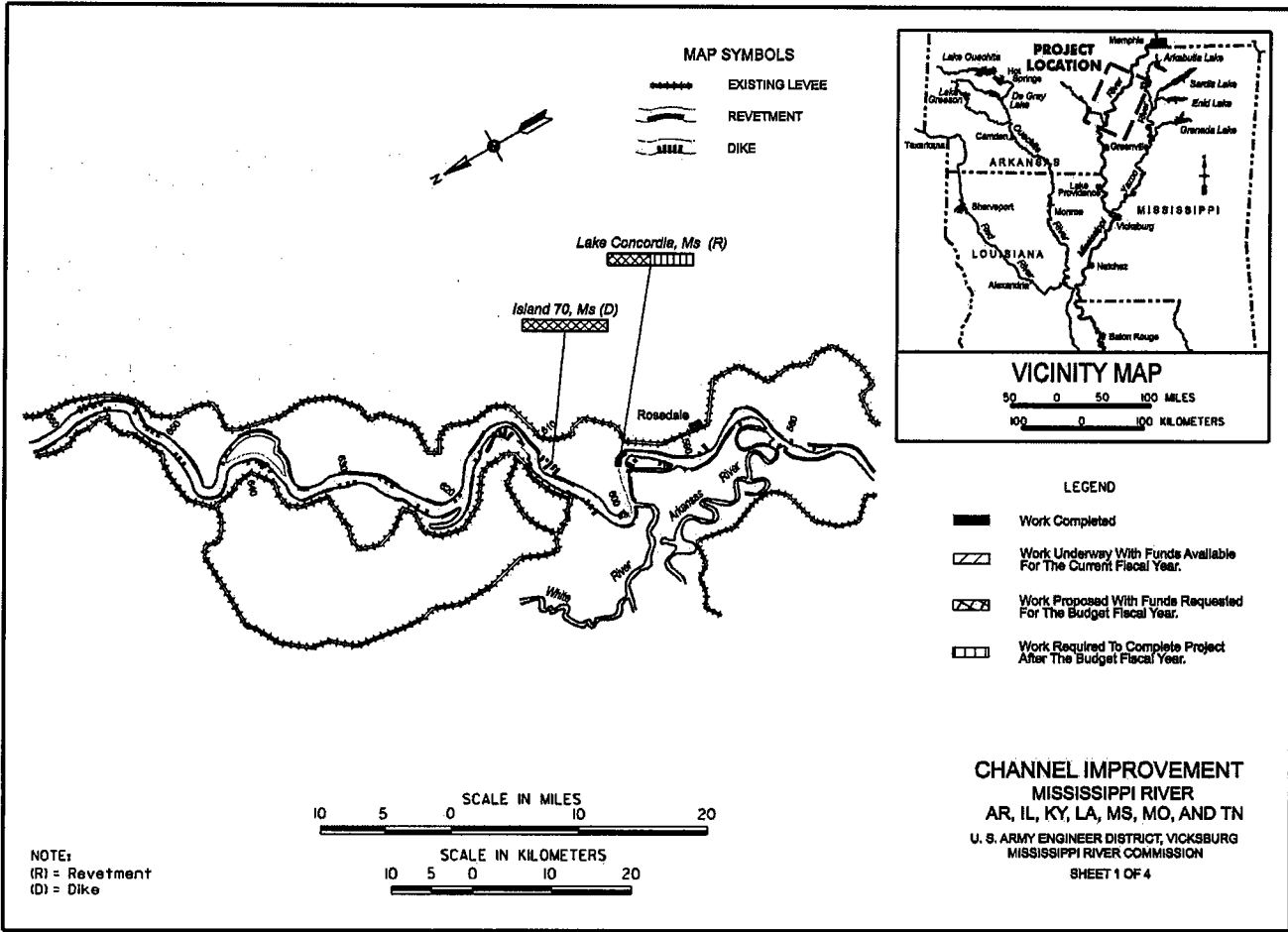
LEGEND

- 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




CHANNEL IMPROVEMENT

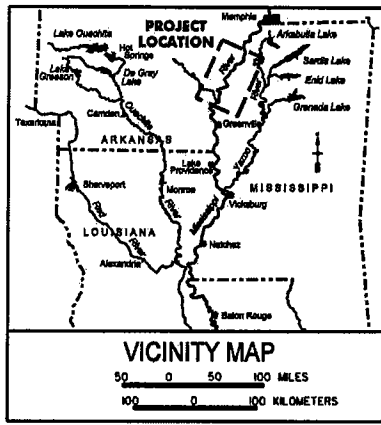
AR, IL, KY, LA, MS, MO AND TN
 U. S. ARMY ENGINEER DISTRICT, MEMPHIS
 MISSISSIPPI RIVER COMMISSION





MAP SYMBOLS





-  EXISTING LEVEE
-  REVETMENT
-  DIKE



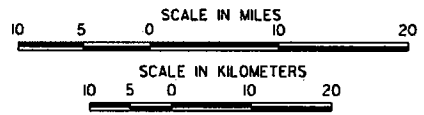
VICINITY MAP

50 0 50 100 MILES
100 0 100 KILOMETERS

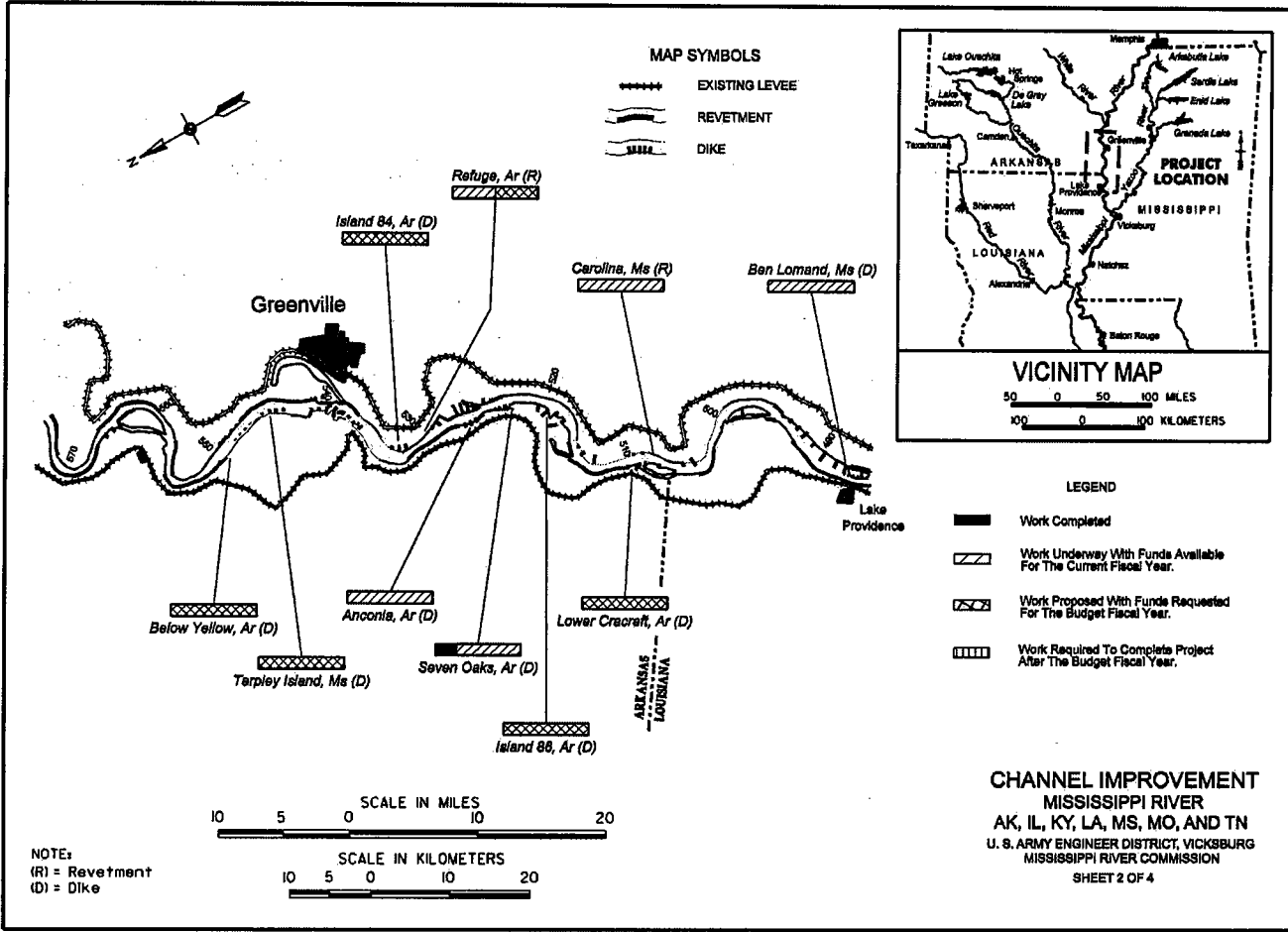
LEGEND

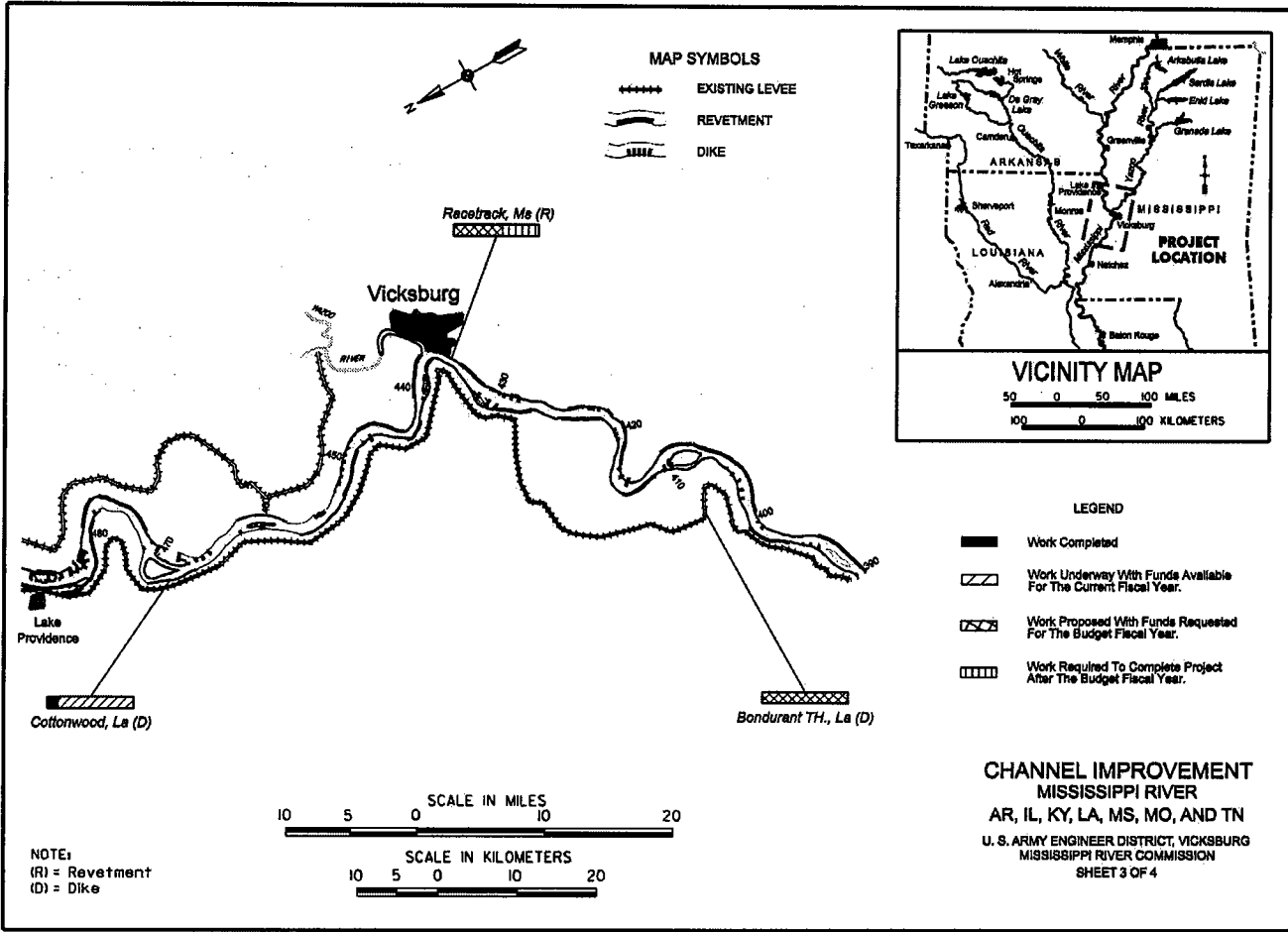
-  Work Completed
-  Work Underway With Funds Available For The Current Fiscal Year.
-  Work Proposed With Funds Requested For The Budget Fiscal Year.
-  Work Required To Complete Project After The Budget Fiscal Year.

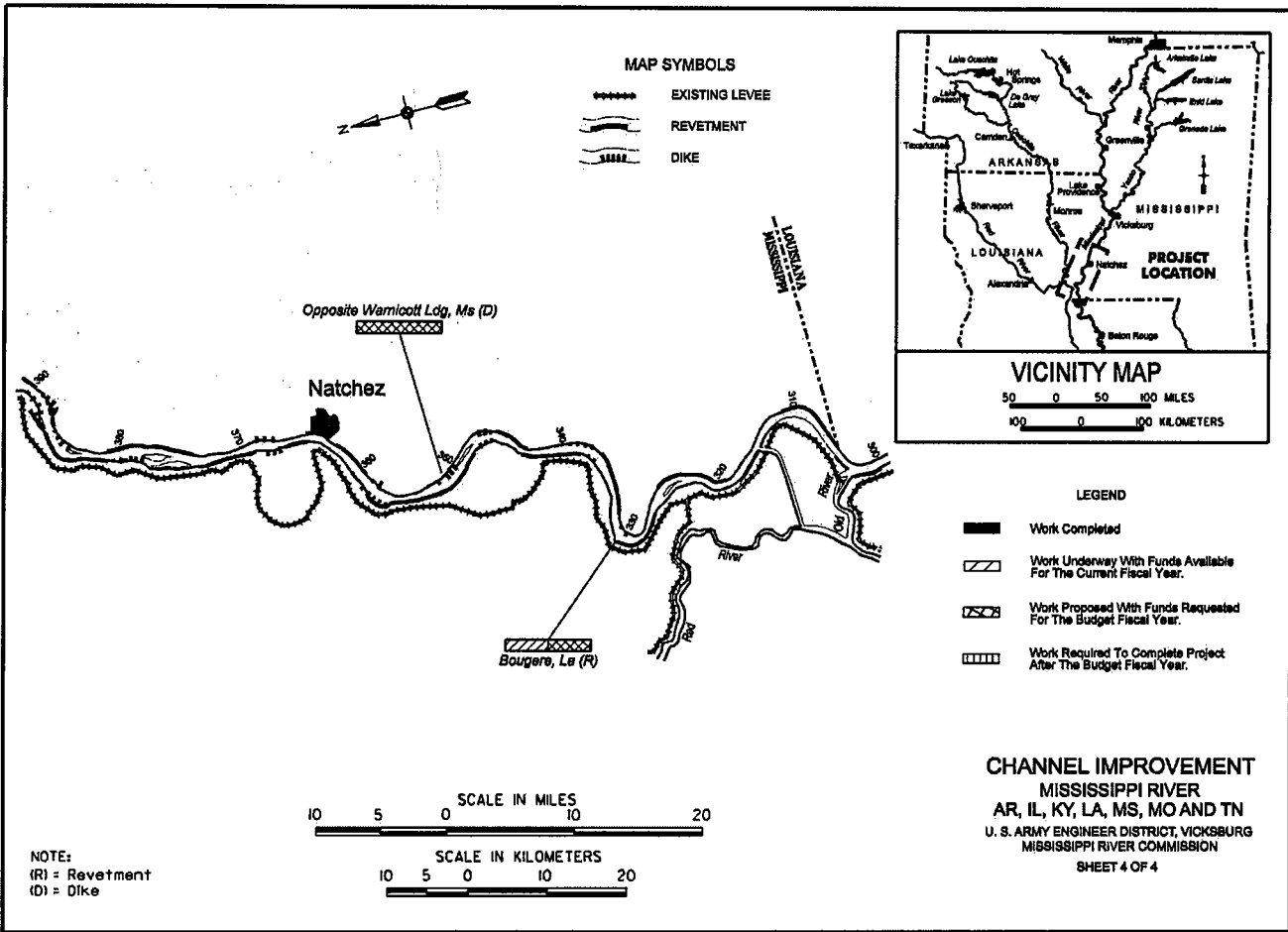
**CHANNEL IMPROVEMENT
MISSISSIPPI RIVER
AR, IL, KY, LA, MS, MO, AND TN
U. S. ARMY ENGINEER DISTRICT, VICKSBURG
MISSISSIPPI RIVER COMMISSION
SHEET 1 OF 4**



NOTE:
(R) = Revetment
(D) = Dike






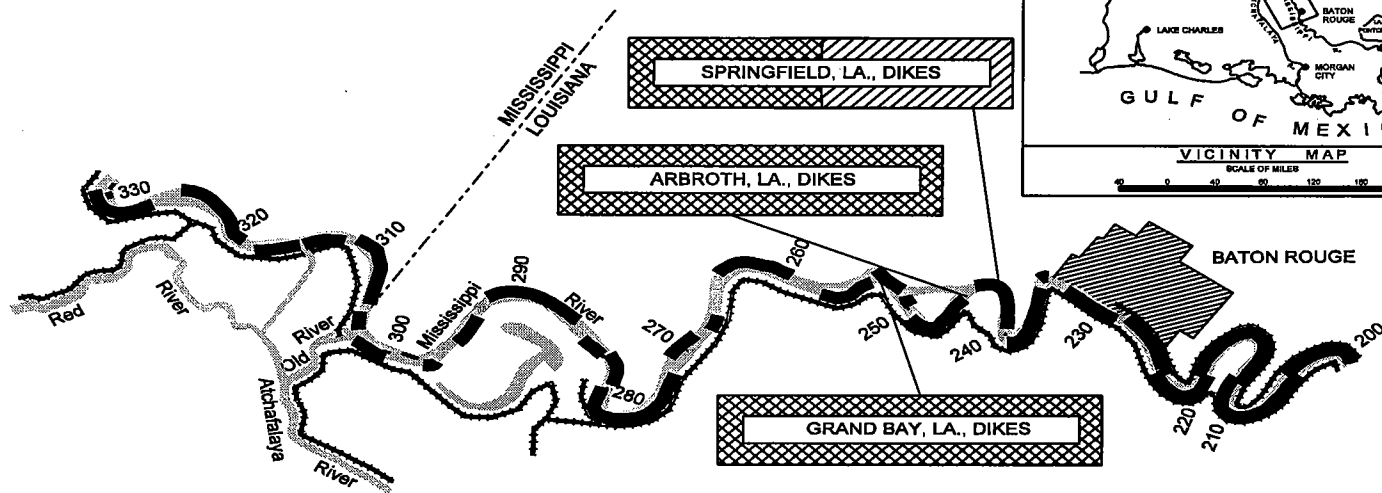










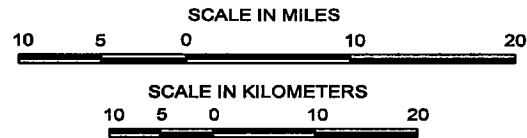
LEGEND

-  WORK COMPLETED
-  WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR 2006.
-  WORK PROPOSED WITH FUNDS AVAILABLE FOR THE BUDGET FISCAL YEAR 2007.

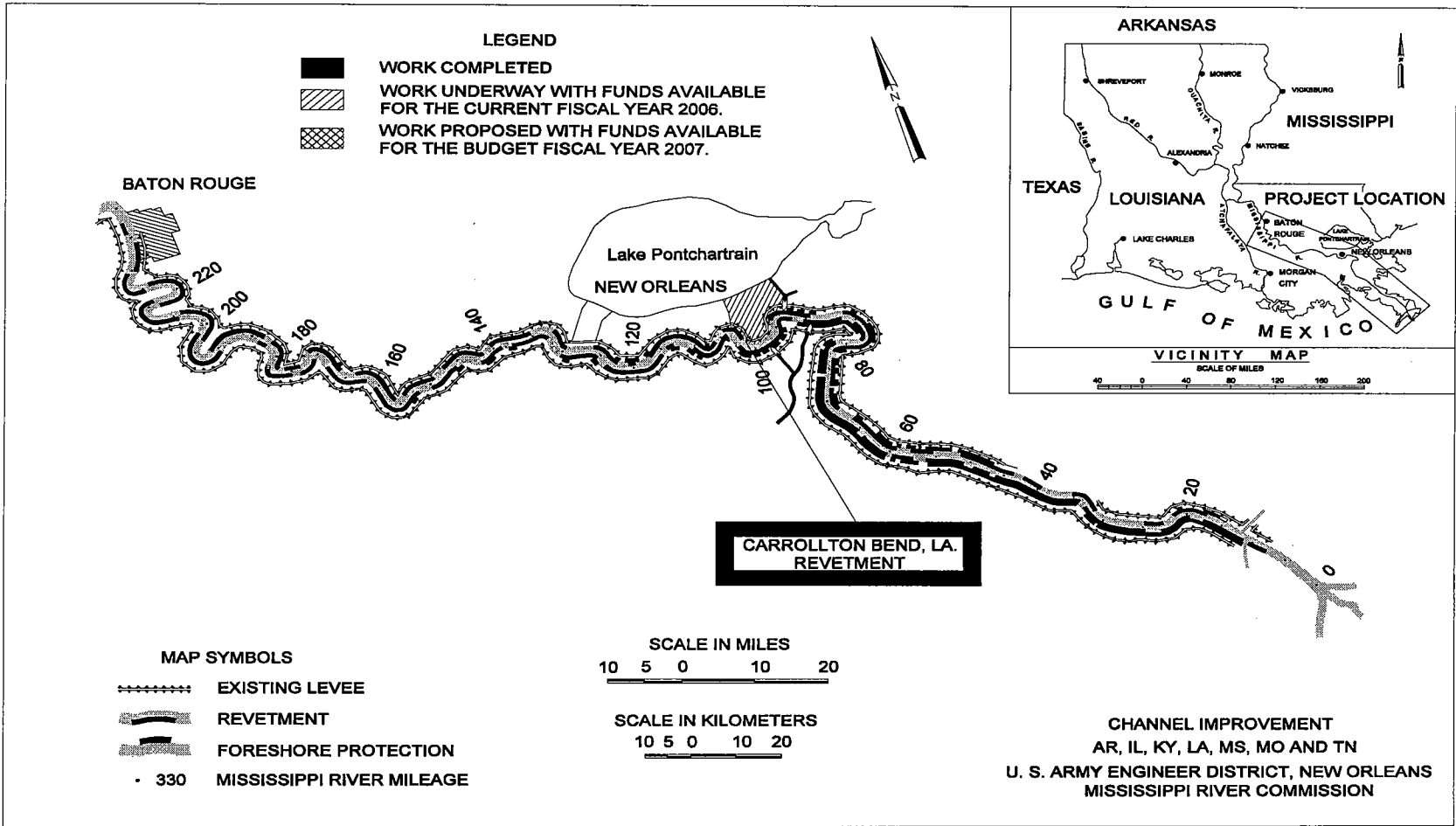


MAP SYMBOLS

-  EXISTING LEVEE
-  REVETMENT
-  DIKE
-  330 MISSISSIPPI RIVER MILEAGE



CHANNEL IMPROVEMENT
AR, IL, KY, LA, MS, MO AND TN
U. S. ARMY ENGINEER DISTRICT, NEW ORLEANS
MISSISSIPPI RIVER COMMISSION



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: 10.3 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 3.8 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.

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST	STATUS (1 June 2005)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Total Appropriation Requirement	\$2,076,674,000		Entire Project	93	TBD
Future Non-Federal Reimbursement	674,000				
Estimated Federal Cost (Ultimate)	2,076,000,000				PHYSICAL DATA
Estimated Non-Federal Cost	\$ 82,826,000		Channel and Canals		72 miles
Cash Contributions	\$ 2,946,000		Levees:		
Other Costs	79,880,000		Average Height		20-35 feet
Reimbursement	674,000		Length		1,519.5 miles
Recreation Facilities	\$674,000		Floodwalls:		
Total Estimated Project Cost	\$2,158,826,000		Average Height		14-23 feet
			Length		14.8 miles
Allocations to 30 September 2003	\$ 1,010,893,000		Levee Berms		629.3 miles
Allocation for FY 2004	45,406,000		Levee Roads		1,500.0 miles
Allocation for FY 2005	44,651,000		Pumping Stations		5
Conference Allowance for FY 2006	51,000,000				
Allocation for FY 2006	50,489,000				
Allocations to 30 September 2006	1,151,439,000	1/	55		
Allocation Requested for FY 2007	40,756,000		57		
Programmed Balance to Complete After FY 2007	884,479,000				
Unprogrammed Balance to Complete After FY 2007	0				

1/ Reflects \$511,000 rescission in accordance with the Department of Defense, Emergency Supplemental Appropriations to Address Hurricanes in the Gulf of Mexico, and Pandemic Influenza Act, 2006.

JUSTIFICATION: The Mississippi River Levee 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. 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 authorized works against the design flood is \$159.4 billion in 2005 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 the 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 \$12.0 billion damages in 2006 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 Federal projects in place. Without the 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 \$12.1 billion and total damages prevented by projects amounted to \$11.3 billion. Expressed in 2006 prices, damages without the projects would have been \$43.5 billion and damages prevented would have been \$40.8 billion.

The benefit-cost ratio was derived by measuring the total benefits credited to those Main Stem components against their total cost. Average annual benefits for the composite of Main Stem features are as follows:

Annual Benefits	Amount @ 2.5%	Amount @ 7%
Flood Control	\$1,372,231,000	\$470,224,000
Navigation	291,680,000	132,965,000
Area Redevelopment	2,480,000	1,208,000
Recreation	3,433,000	3,234,000
Total	\$1,669,824,000	\$607,631,000

FISCAL YEAR 2006: Current funds are being used as follows:

Lands and Damages	\$705,000
Cultural Resources Preservation	986,000
Tallula-Magna Vista, MS, Item 474-L	\$ 680,000
Gap Closure West Bank, LA	900,000
Edgar Ferry landing, LA	350,000
Hohen-Sloma-Modeste, LA, Mile 185-179R	1,700,000
Willow Point-Youngs Point, LA, Item 457-R	2,300,000
Carlisle-Tallula, MS, Item 488-L	11,030,000
Willow Point-Youngs Point, LA, Item 450-R	1,700,000
Willow Point-Youngs Point, LA, Item 445-R	1,900,000
Lower Mississippi River Museum & Interpretive Center	2,500,000
Caruthersville, MO, Outlet Ditches	1,360,000
Nash, Mo, Relief Wells, Parcel 2	2,543,000
Pecan Point, AR, Relief Wells, Parcel 2	48,000
Mounds Creek, IL, Culvert	1,170,000
Trotter, MS, Berm, Parcel 1	3,135,000
Fritz Landing, TN, Culvert Replacement	1,464,000
Willow Point-Youngs Point, LA, Item 461-R	767,000
Valewood-Carlisle, MS, Item 496-L	168,000
Tallula-Magna Vista, MS, Item 477-L	124,000
Willow Point-Youngs Point, LA, Item 453-R	1,880,000
Gap Closure East Bank, LA	652,000
Baton Rouge Front Levee, LA	162,000
Planning, Engineering and Design	8,169,000
Construction Management	4,096,000
Total	\$50,489,000

FISCAL YEAR 2007: The requested amount will be applied as follows:

Lands and Damages	\$ 2,020,000
Cultural Resources Preservation	50,000
Miscellaneous Hired Labor	600,000
Farrell, MS, Relief Wells	\$ 2,100,000
Alhambra-Hohem Solms, LA, Mile 185-191R	1,608,000
Willow Point-Youngs Point, LA, Item 457-R	2,020,000
Carlisle-Tallula, MS, Item 488-L	5,175,000
Willow Point-Youngs Point, LA, Item 450-R	4,243,000
Willow Point-Youngs Point, LA, Item 445-R	7,554,000
Tallula-Magna Vista, MS, Item 474-L	3,928,000
Planning, Engineering and Design	7,925,000
Construction Management	3,533,000
Total	\$40,756,000

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.	\$79,489,000	
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.		\$637,000
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.	3,015,000	0
Other (levee and revetment construction)	322,000	
Total Non-Federal Costs	\$82,826,000	\$637,000

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 2005. Some levee boards are having difficulty in providing right-of-way when requested, even for construction work in areas where the existing levees are farthest below the authorized grade. 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.

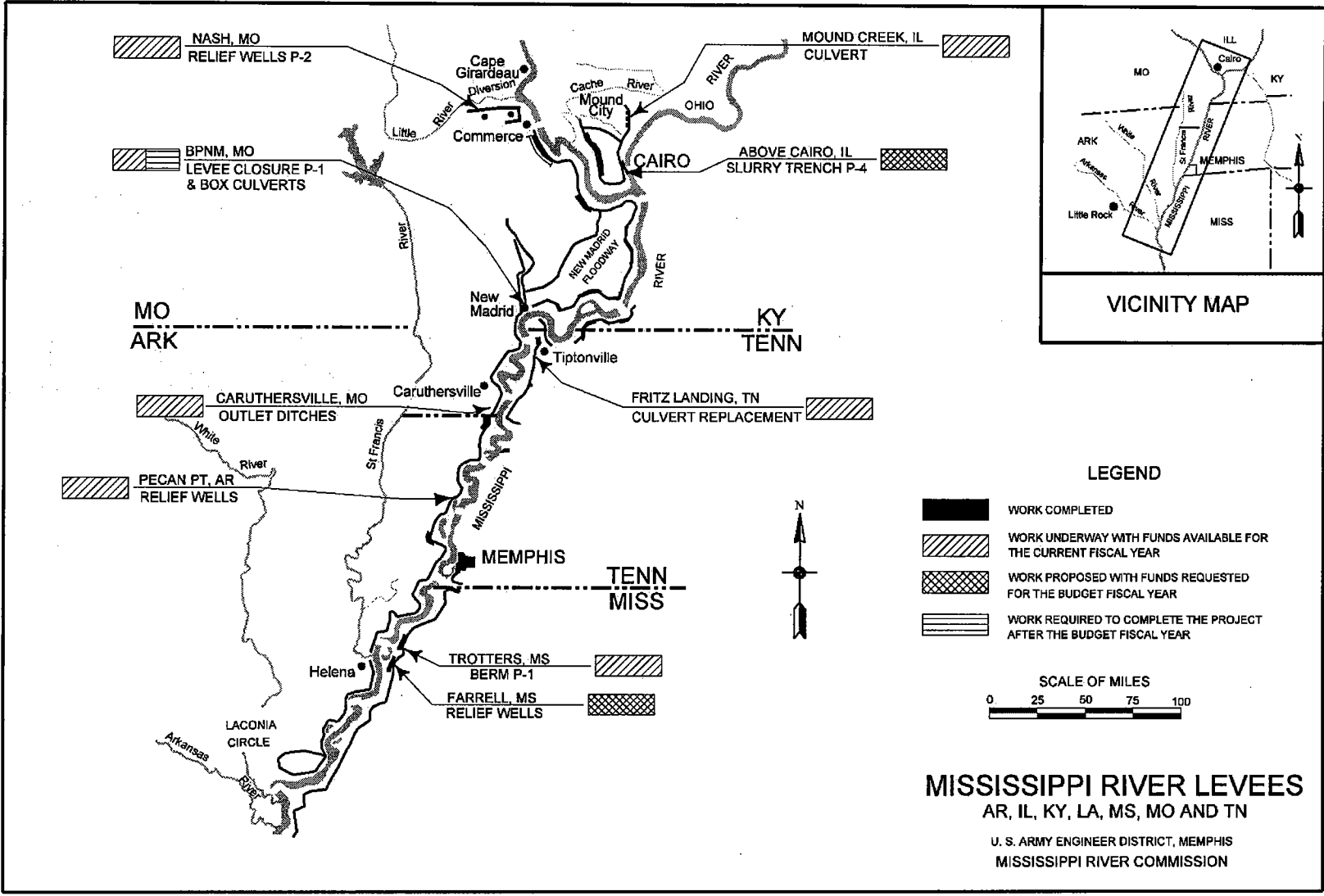
Assurances of local cooperation for the recreation facilities at Warfield Point, Mississippi, were accepted on 14 October 1969. Supplemental assurances covering the River and Harbor Act of 1970 (PL 91-611) and PL 91-646 were accepted 7 August 1972. Assurances have not as yet been requested for the recreation facilities at Mississippi River State Park, Arkansas.

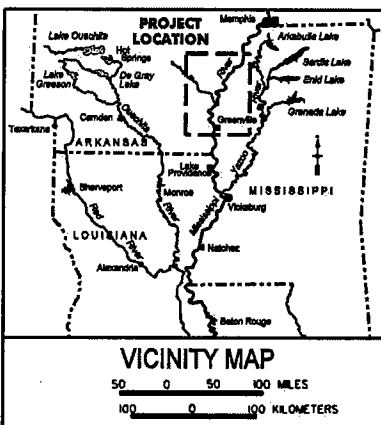
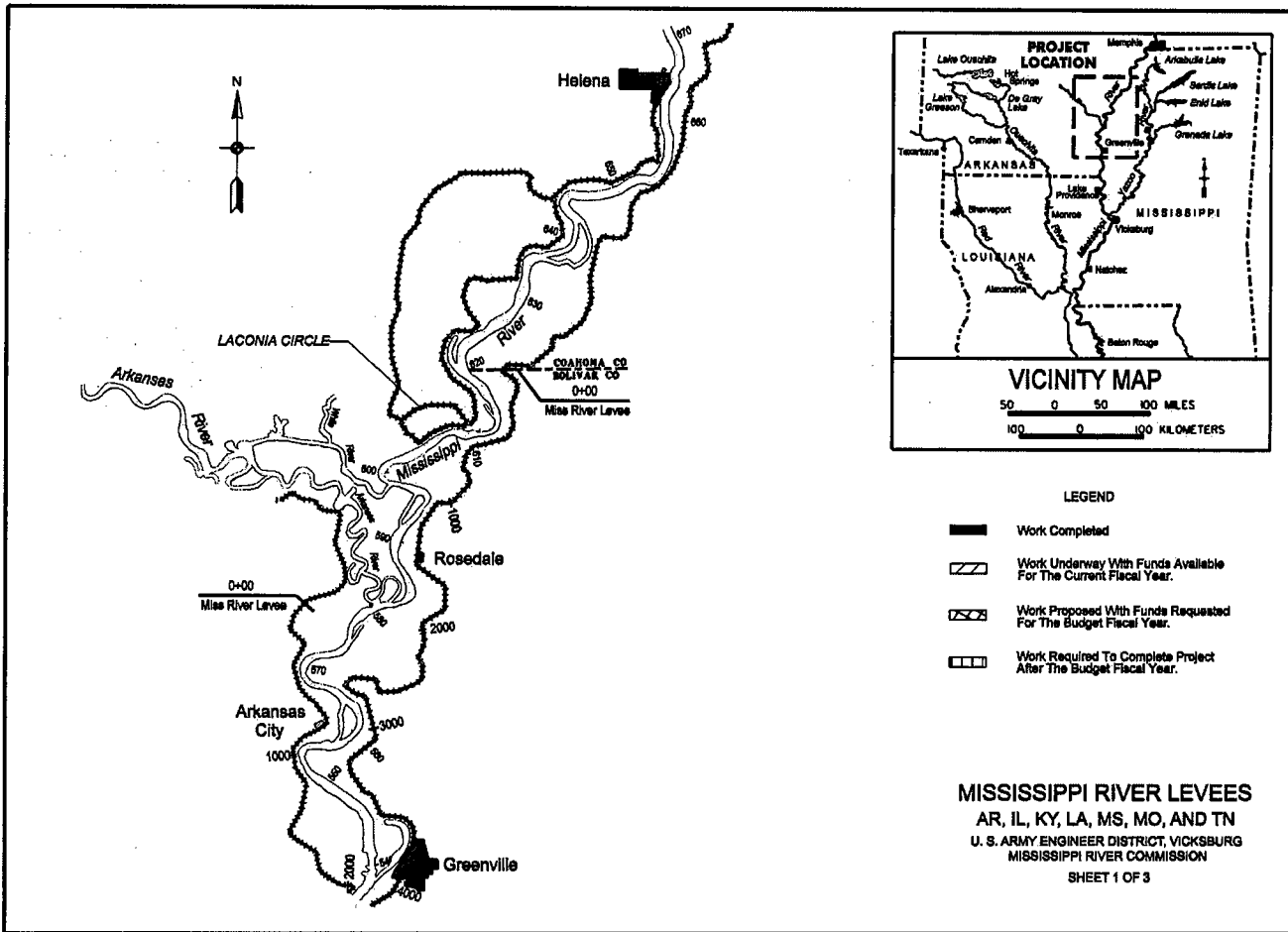
COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$2,076,000,000 is an increase of \$27,000,000 from the latest estimate (\$2,049,000,000) presented to Congress (FY 2005). This change includes the following items:

Item	Amount
Price Escalation on Construction Features	\$ 25,248,000
Post Contract Award and Other Estimating Adjustments	4,958,000
Price Escalation on Real Estate	-3,206,000
Total	\$ 27,000,000

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.

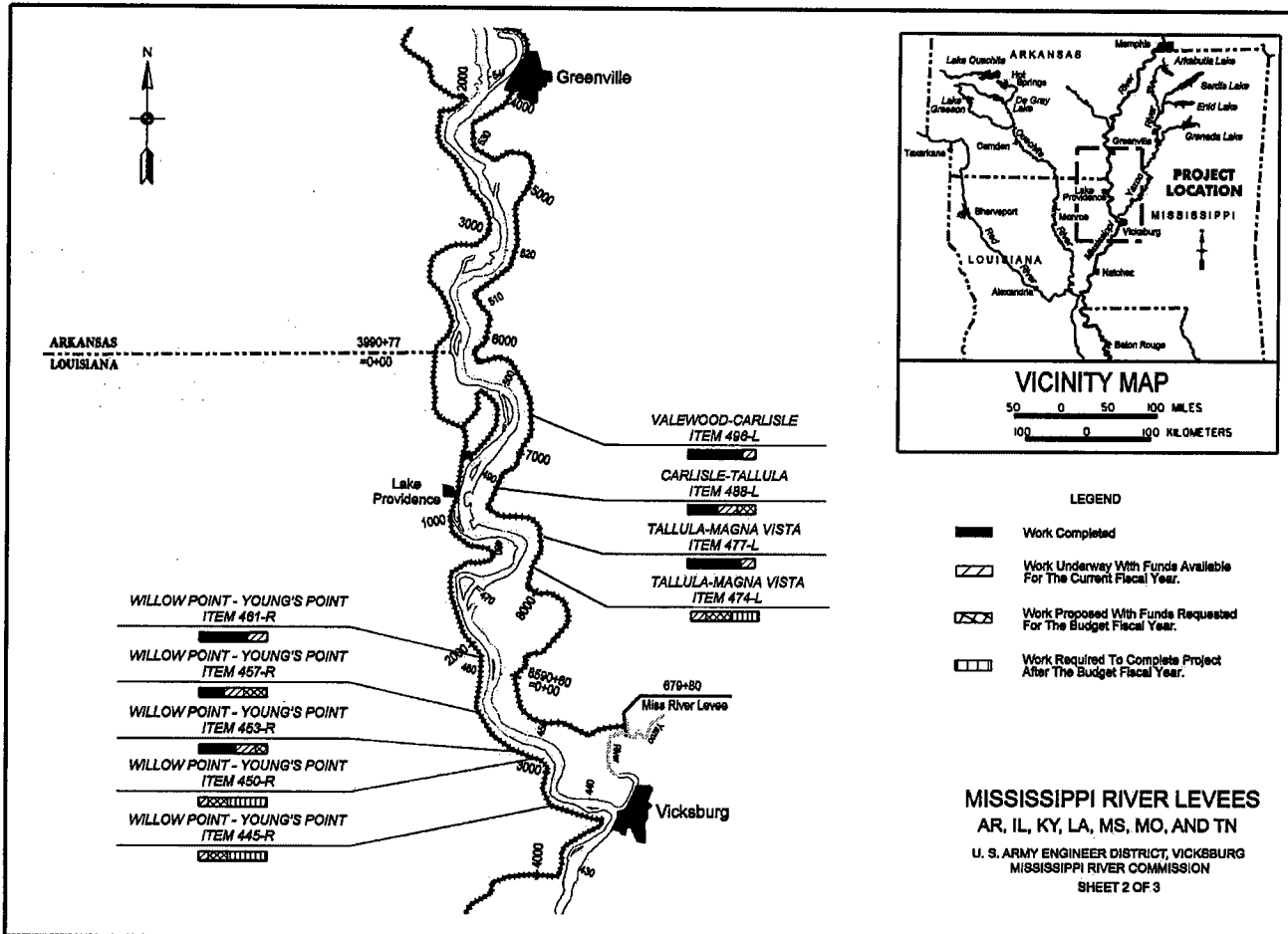
OTHER INFORMATION: Initial construction funds were appropriated in Fiscal Year 1928.

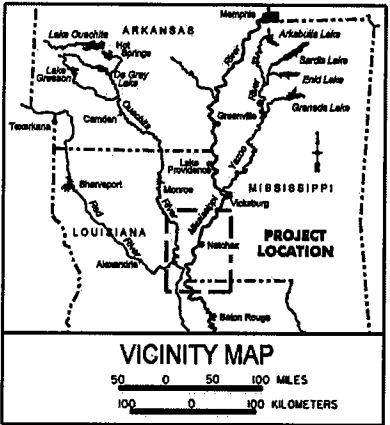
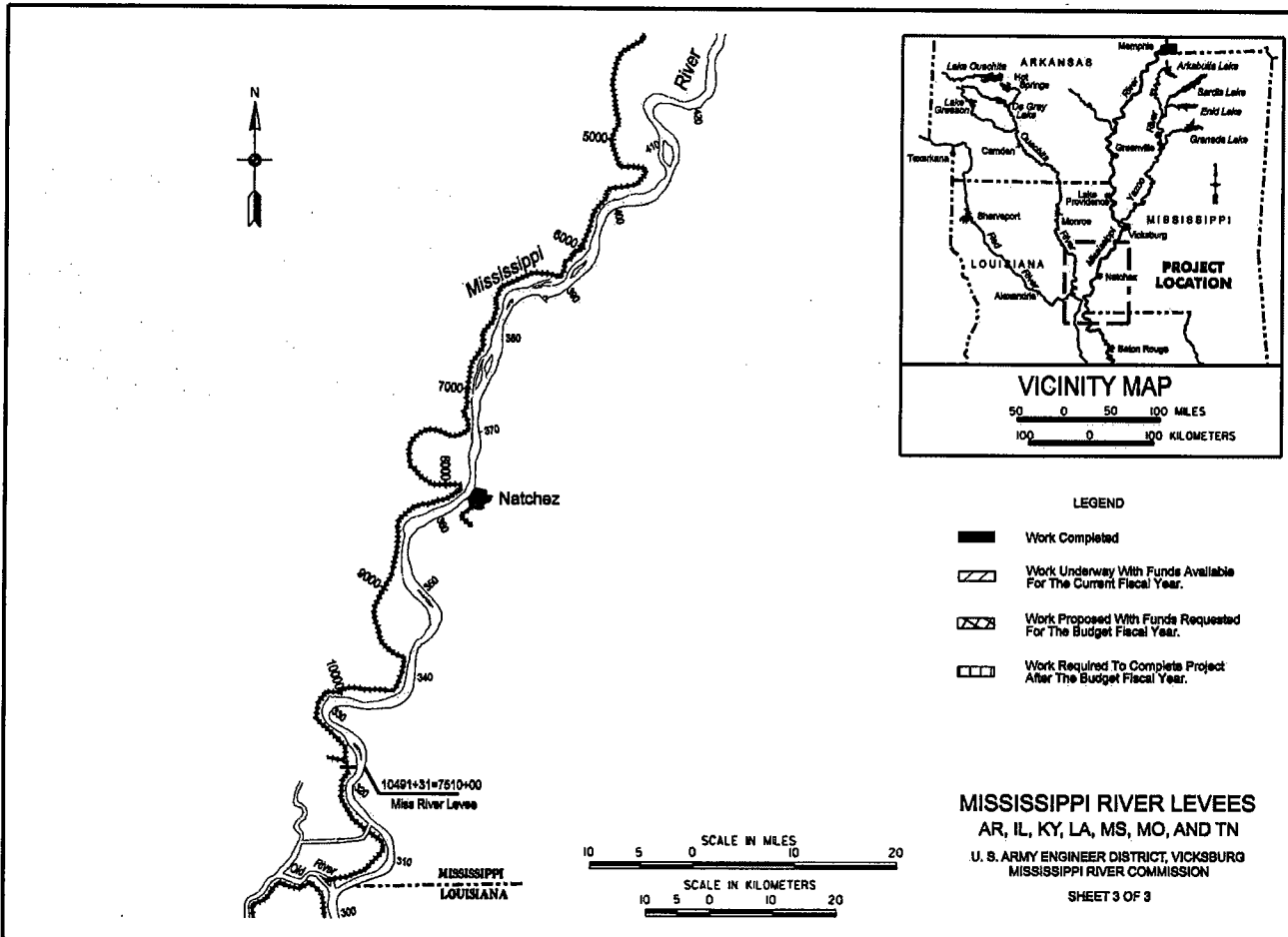




- LEGEND**
- Work Completed
 - Work Underway With Funds Available For The Current Fiscal Year.
 - Work Proposed With Funds Requested For The Budget Fiscal Year.
 - Work Required To Complete Project After The Budget Fiscal Year.

MISSISSIPPI RIVER LEVEES
 AR, IL, KY, LA, MS, MO, AND TN
 U. S. ARMY ENGINEER DISTRICT, VICKSBURG
 MISSISSIPPI RIVER COMMISSION
 SHEET 1 OF 3

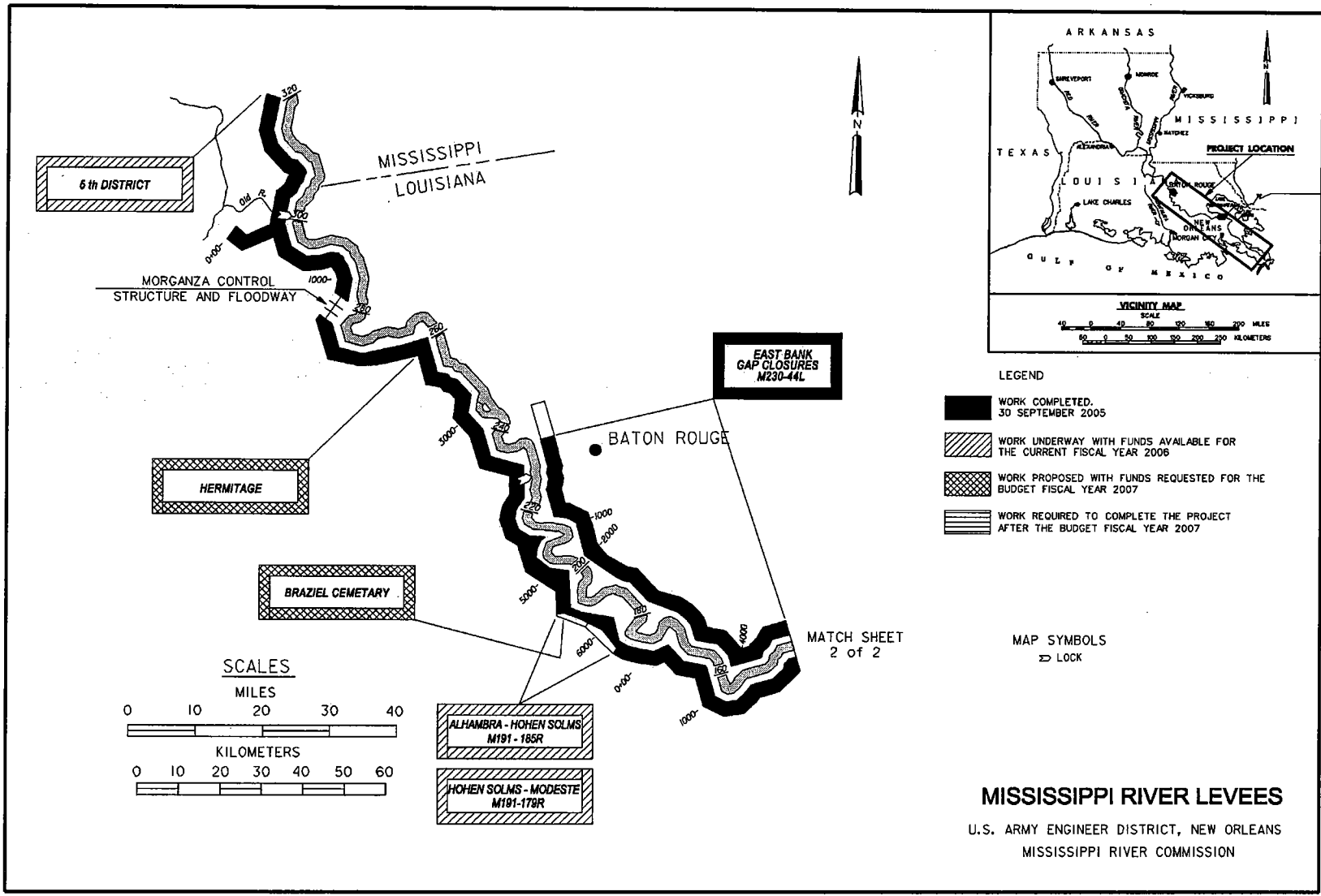




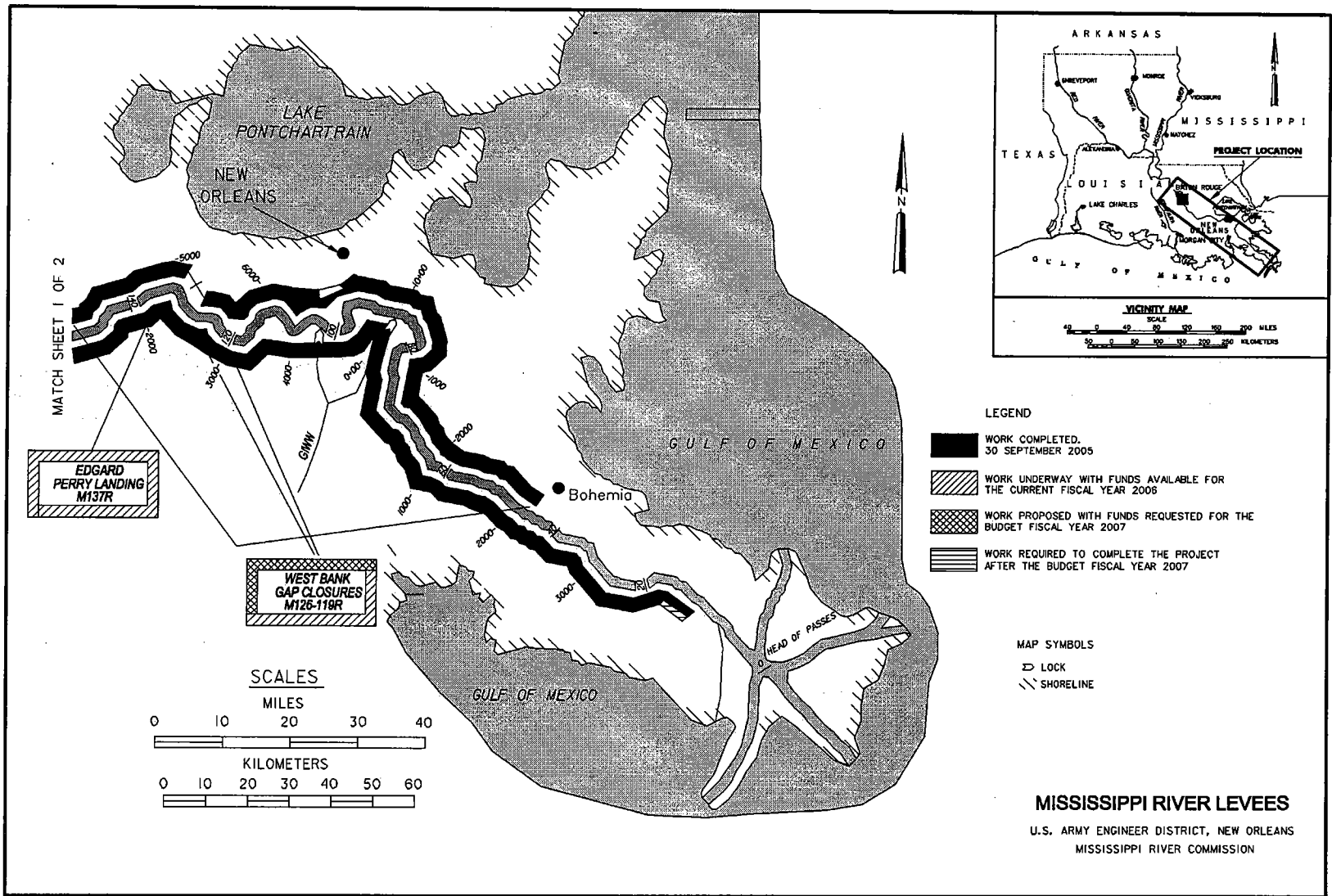
- LEGEND**
- Work Completed
 - Work Underway With Funds Available For The Current Fiscal Year.
 - Work Proposed With Funds Requested For The Budget Fiscal Year.
 - Work Required To Complete Project After The Budget Fiscal Year.

MISSISSIPPI RIVER LEVEES
 AR, IL, KY, LA, MS, MO, AND TN
 U. S. ARMY ENGINEER DISTRICT, VICKSBURG
 MISSISSIPPI RIVER COMMISSION

SHEET 3 OF 3



SHEET 1 OF 2



APPROPRIATION TITLE: Flood Control, Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO, and TN – Construction

PROJECT: St. John's Bayou – New Madrid Floodway, Missouri (Continuing)

LOCATION: The project area is located in southeast Missouri in New Madrid, Scott, and Mississippi Counties.

DESCRIPTION: The authorized project consists of 137 miles of rural channel improvement, 6.7 miles of urban channel improvement, a 1,000 cfs pumping station, and a 1,500 cfs pumping station, including mitigation features, and would be constructed in three phases. Work for the First Phase of the project is programmed. This phase includes the two pumping stations, 27.6 miles of channel improvements and mitigation features. The remaining St. John's Bayou work consists of 91 miles of channel improvements, including the 6.7 miles of urban channel. The remaining New Madrid floodway work consists of 25 miles of rural channel improvements. Both the St. Johns Bayou and New Madrid Floodway remaining work are unprogrammed due to the lack of local sponsor financing.

AUTHORIZATION: Water Resources Development Acts of 1986 and 1996.

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: 1.2 at 7-3/8 percent

BASIS OF BENEFIT-COST RATIO: Benefits are from the June 2002 Final Revised Supplemental Environmental Impact Statement at 1996 price levels based on total project. The benefit-cost ratio does not include costs associated with the 1,500-foot gap closure and box culvert authorized as a component of the Mississippi River Levee System by the Flood Control Act of 1954.

SUMMARIZED FINANCIAL DATA			STATUS (1 January 2006)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		\$69,900,000	First Phase	4	TBD
Programmed Construction	\$45,900,000		St. Johns Phase	0	Indefinite
Unprogrammed Construction	24,000,000		New Madrid Phase	0	Indefinite
			Entire Project	0	Indefinite
Estimated Non-Federal Cost		\$44,200,000			
Programmed Construction	\$15,300,000				
Cash Contributions	\$ 3,200,000				
Other Costs	12,100,000				
Estimated Non-Federal Cost		\$28,900,000			
Unprogrammed Construction	\$28,900,000				
Cash Contributions	\$ 200,000				
Other Costs	28,700,000				

PHYSICAL DATA	
Lands and Damages:	
Flood Control	6,467 acres
F&WL Mitigation	1,317 acres (8,375 including the MRL Project Item)
Restrictive Easements	2,450 acres
Seasonal Sump Pond Easements	3,550 acres (6,400 including the MRL Project item)

Mississippi River Commission

Memphis District

St. Johns Bayou – New Madrid Floodway, Missouri

6 February 2006

SUMMARIZED FINANCIAL DATA (cont.)

ACCUM
PCT OF EST
FED COST

PHYSICAL DATA (cont.)

Total Estimated Programmed Construction Cost	\$ 61,200,000	
Total Estimated Unprogrammed Construction Cost	52,900,000	
Total Estimated Project Cost	114,100,000	
Allocations to 30 September 2003	\$ 9,313,000	
Allocation for FY 2004	524,000	
Allocation for FY 2005	789,000	
Conference Allowance for FY 2006	4,950,000	
Allocation for FY 2006	4,900,000 ^{1/}	
Allocations to 30 September 2006	15,526,000	22
Allocation Requested for FY 2007	\$ 2,500,000	26
Programmed Balance to Complete After FY 2007	27,874,000	
Unprogrammed Balance to Complete After 2007	24,000,000	

Relocations:	
Roads	38 bridges/1 road
Railroads	3 bridges
Utilities	103 facilities
Channels:	
Enlargement	27 miles Phase 1 (143.6 authorized)
Pumping Plants:	
	1000 cfs
	1500 cfs

^{1/} Reflects \$50,000 rescission in accordance with the Department of Defense, Emergency Supplemental Appropriations to address Hurricanes in the Gulf of Mexico, and Pandemic Influenza Act, 2006.

JUSTIFICATION: The project area is subject to flooding where the existing channels overflow. The lower end of the New Madrid Floodway is flooded by backwater from the Mississippi River. Construction of the authorized levee closure (Mississippi River Levee project item) in the lower end of the floodway would eliminate Mississippi River backwater; however, absent other features, local runoff would continue to build up behind the levee when the gate is closed during high Mississippi River stages. The project, therefore, includes two pumping stations and attendant channel improvements to help alleviate the flood problems. Total average annual benefits of the authorized project are as follows (1996 price levels):

Annual Benefits	Amount
Urban	\$ 2,491,000
Agricultural Inundation Reduction	6,277,000
Agricultural Intensification	2,363,000
Advanced Replacements	232,000
Betterments	13,000
Wildlife and Aquatic Gains	159,000
Total	\$11,535,000

Mississippi River Commission

Memphis District

St. John's Bayou – New Madrid Floodway, Missouri

6 February 2006

FISCAL YEAR 2006: Current year funds are being used as follows

St. Johns Bayou, MO, Channel Enlargement, Item 3	\$ 1,600,000
New Madrid, MO, Pumping Station, Item 2	2,330,000
Engineering and Design	800,000
Construction Management	170,000
Total	\$ 4,900,000

FISCAL YEAR 2007: The requested amount will be applied as follows

New Madrid, MO, Pumping Station, Item 2	\$ 2,000,000
Engineering and Design	300,000
Construction Management	200,000
Total	\$ 2,500,000

NON-FEDERAL COST: 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:

Mississippi River Commission

Memphis District

St. John's Bayou – New Madrid Floodway, Missouri

6 February 2006

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation and Replacement Costs
Provide lands, easements, right-of-way, and borrow and excavated or dredged material disposal areas.	\$23,078,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	\$17,722,000	
Pay 5 percent of the costs allocated to flood control in cash to bring the total non-federal share of flood control cost to 25 percent and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	\$ 3,400,000	\$824,881
Total Non-Federal Costs	\$44,200,000	\$824,881

STATUS OF LOCAL COOPERATION: The St. John Levee and Drainage District is the cost-sharing local sponsor for the First Phase of the St. Johns Bayou and New Madrid Floodway Project. A Limited Reevaluation Report (LRR) to separate the engineering, economic, and environmental data for the First Phase from the overall project was approved 7 August 1997. The Project Cooperation Agreement (PCA) was signed 18 August 1997 and the first item of construction was completed in October 1997. An amended PCA reflecting change developed during formulation of the Revised Supplemental Environmental Impact statement was signed on 10 October 2003. East Prairie has received Federal recognition for its Enterprise Community Plan, thus making the Community eligible to receive Federal grant funds. USDA agreed to provide those funds necessary to reduce the local share of project costs to five percent.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$69,900,000 is an increase of \$2,050,000 from the latest estimate (\$67,850,000) presented to Congress (Fiscal Year 2005). This change includes the following:

Mississippi River Commission

Memphis District

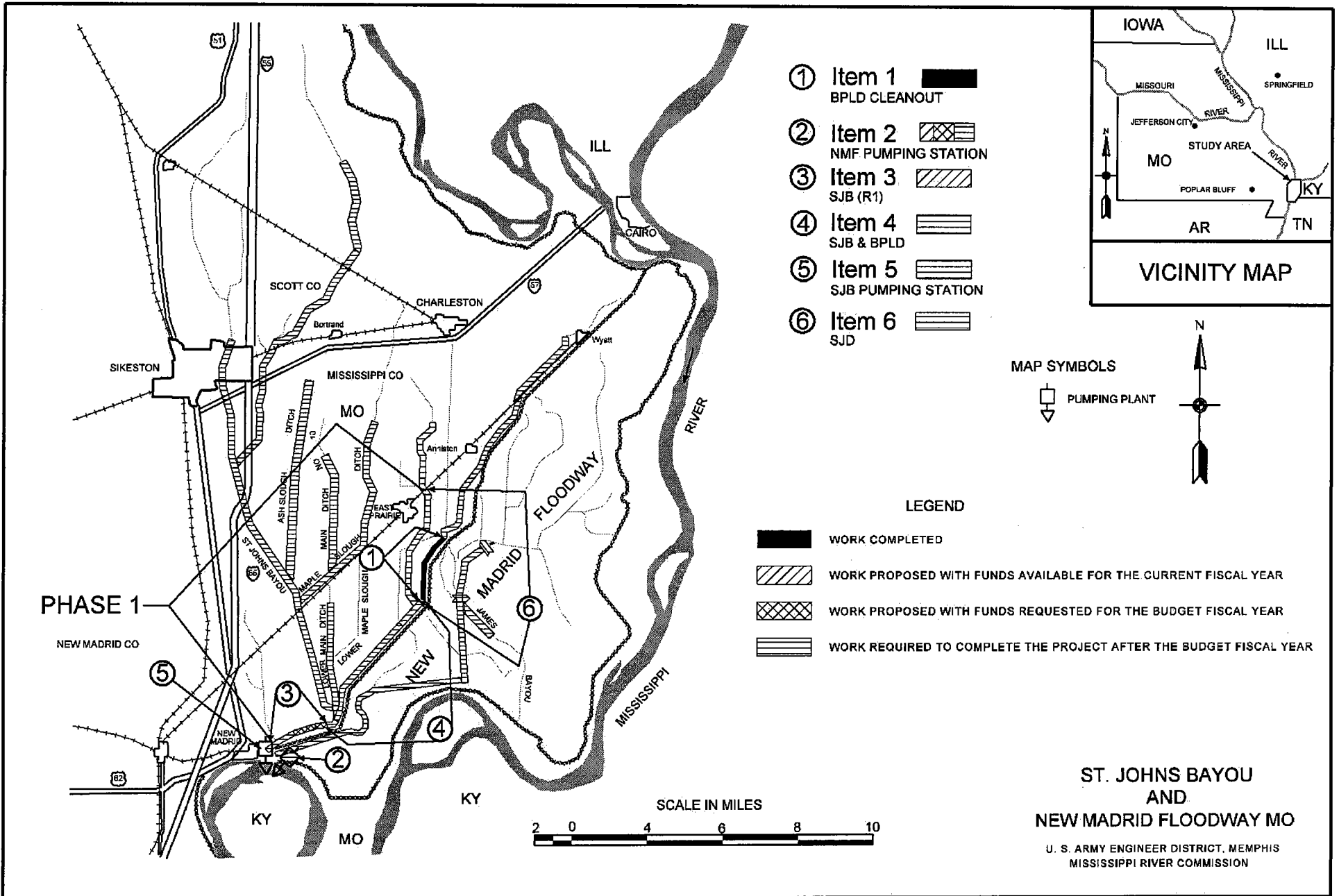
St. John's Bayou – New Madrid Floodway, Missouri

6 February 2006

Item	Amount
Price Escalation on Construction Features	\$2,579,000
Post Contract Award and Other Estimating Adjustments	- 529,000
Price Escalation on Real Estate	
Total	\$2,050,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Environmental Impact Statement (EIS) for the St. Johns Bayou and New Madrid Floodway project was filed with the Council on Environmental Quality in June 1974, and a Supplement to the EIS was filed with the U.S. Environmental Protection Agency (EPA) in July 1982. The EIS and Supplement to the EIS identified mitigation related to the fish, wildlife, and other environmental losses. Project changes resulting from Phase II General Design Memorandum (GDM) studies were evaluated in 1987. Environmental analysis conducted in conjunction with the preparation of the Phase II GDM reflected no substantive change in environmental impacts, and concluded that mitigation approved in prior reports would offset project losses. Project construction was initiated in FY 1997 with 4.3 miles of vegetative clearing along the Setback Levee Ditch. This work was covered by an Environmental Assessment/FONSI. A Supplemental EIS was developed, reviewed by the public, and filed with the EPA on 24 August 2000. Due to concerns by the EPA and Fish and Wildlife Service, the Corps revised the Supplemental EIS to include an analysis of additional closure locations for the Mississippi River Levees feature portion of the project and to provide additional clarification to the wetland analysis. The Revised Supplemental Environmental Impact Statement was finalized in June/July 2002. Water Quality Certification was received on 9 June 2003. The NEPA Record of Decision (ROD) was signed for the remaining items in Phase 1 on 18 August 2003. The ROD was withdrawn 22 June 2005 pending completion of a second Revised Supplemental Environmental Impact Statement (RSEIS2) required to reflect changes in project mitigation.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1982. Funds to initiate construction were appropriated in FY 1997. Local interests support implementation of the First Phase portion of the St. Johns Bayou and New Madrid Floodway project to reduce the risk of flooding. A construction contract for the New Madrid Pumping Station was awarded 16 September 2004. A Notice to Proceed (NTP) has not yet been issued on the pumping station contract, pending completion of a new ROD.



FLOOD AND COASTAL STORM DAMAGE REDUCTION

CONSTRUCTION

MISSISSIPPI VALLEY DIVISION

APPROPRIATION TITLE: Construction, General – Channels and Harbors (Navigation)

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 design 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: 2 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 1.5 to 1 at 7 percent.

INITIAL BENEFIT-COST RATIO: 1.6 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			STATUS (1 Jan 2006)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
	Original Project		Entire Project	39	To Be Determined
Actual Federal Cost		\$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			

Remedial Work		ACCUM PCT OF EST FED COST (Remedial Work Only)
Estimated Federal Cost	\$38,200,000	
Estimated Non-Federal Cost	0	
Cash Contributions	\$ 0	
Other Costs	0	
Total Estimated Remedial Cost	\$38,200,000	
Total Estimated Project Cost	\$97,460,000	
Allocations to 30 September 2003	\$ 7,141,000	
Allocation for FY 2004	1,446,000	
Allocation for FY 2005	3,166,000	
Conference Allowance for FY 2006	5,495,000	
Allocation for FY 2006	5,440,000	<u>1/</u>
Allocations to 30 September 2006	17,193,000	45
Allocation Requested for FY 2007	6,800,000	63
Programmed Balance to Complete after FY 2007	14,207,000	
Unprogrammed Balance to Complete after FY 2007	0	

1/ Reflects \$55,000 rescission in accordance with the Department of Defense, Emergency Supplemental Appropriations to Address Hurricanes in the Gulf of Mexico, and Pandemic Influenza Act, 2006.

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, but is currently the weak link of the system. 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 provide urban level protection for the East St. Louis metropolitan area. Failure of the levee would affect a population of 250,000 mainly low income and poor residential neighborhoods and a heavily industrialized area with total property values of \$1.4 billion. Average annual benefits for the design deficiency correction are as follows:

Annual Benefits	Amount
Flood Damage Reduction	\$ 3,730,000
Navigation	42,000
Total	\$ 3,772,000

FISCAL YEAR 2006: Current year funds are being used as follows:

Relocations	\$ 115,000
Wetland Mitigation	60,000
Berms	4,585,000
Maintenance During Construction	35,000
Planning, Engineering and Design	420,000
Construction Management	225,000
Total	\$5,440,000

FISCAL YEAR 2007: The requested amount will be applied as follows:

Wetland Mitigation	\$ 600,000
Berms	5,150,000
Maintenance During Construction	50,000
Planning, Engineering and Design	600,000
Construction Management	400,000
Total	\$6,800,000

NON-FEDERAL COST: The project is 100 percent Federal.

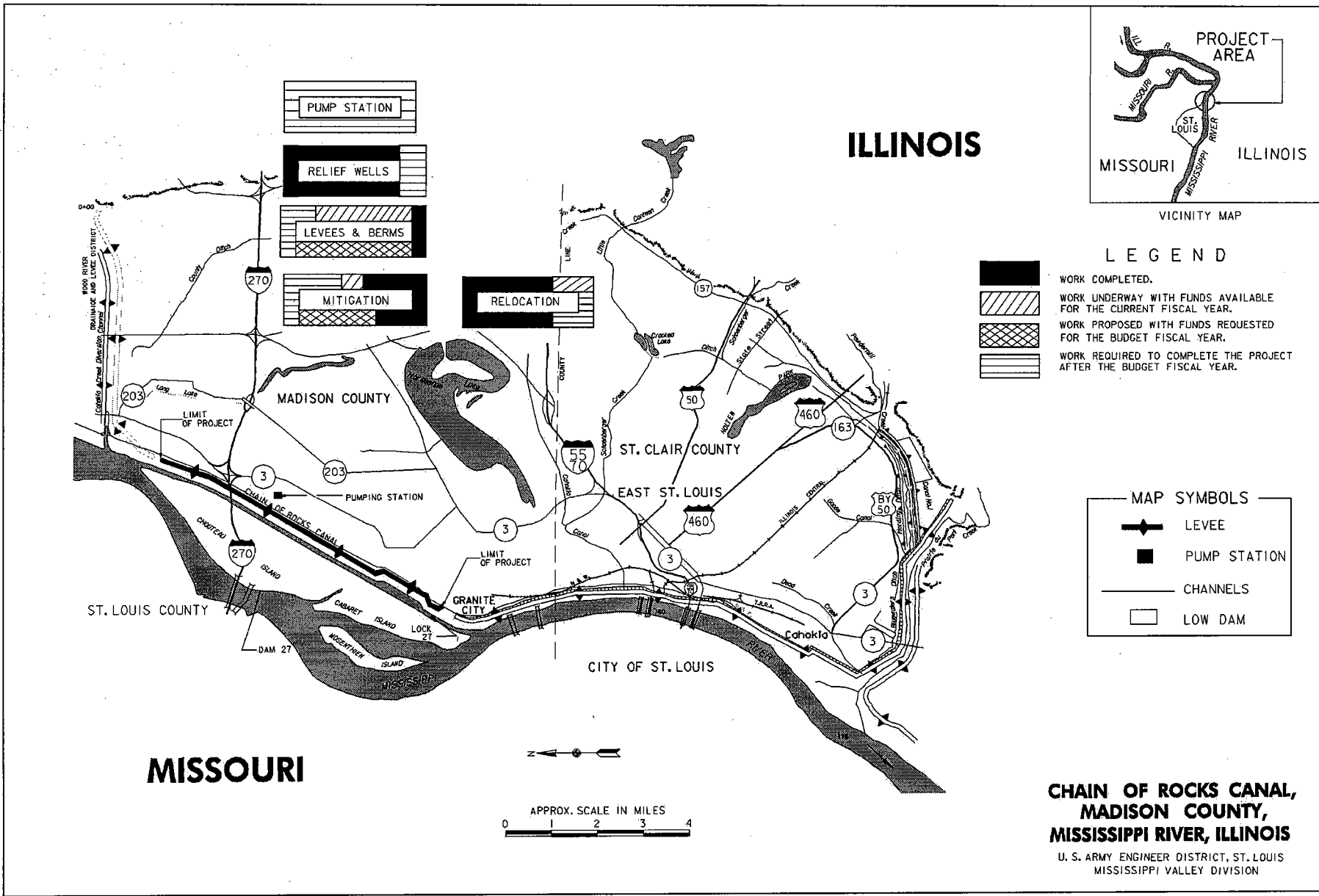
STATUS OF LOCAL COOPERATION: Not applicable.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$38,200,000 is an increase of \$3,500,000 from the latest estimate (\$34,700,000) presented to Congress (FY 2006). This change includes the following items:

Item	Amount
Price Escalation on Construction Features	\$ 437,000
Post Contract Award and Other Estimating (including Contingency Adjustments)	3,000,000
Price Escalation on Real Estate	63,000
Total	\$3,500,000

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. Award of the pump station contract is pending completion of the levee rehabilitation. The Corps is seeking a permanent easement of 72 acres within the Charles Melvin Price Support Center, a closed army base, for construction and operational purposes associated with the original project and the deficiency corrections. Fish and Wildlife costs are \$1,190,000.



APPROPRIATION TITLE: Construction, General – Local Protection (Flood Control)

PROJECT: East St. Louis, Illinois (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 rehabilitation of 21 small gravity drains, 10 large gravity drains (gatewells), 20 closure structures, and 300 relief wells; minor floodwall and levee rehabilitation work; rehabilitation of 12 pumping stations and 3 drainage control structures; replacement of 3 bridge structures, abandonment and removal of 4 bridge structures and 6 segments of channel rehabilitation. All work, except bridges, is programmed. The bridge work, which is unprogrammed, will be performed at 100 percent non-Federal cost.

AUTHORIZATION: Energy and Water Development Appropriations Act of 1988 (PL 100-202).

REMAINING BENEFIT-REMAINING COST RATIO: 6.2 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 6.7 to 1 at 7percent.

INITIAL BENEFIT-COST RATIO: 4.6 to 1 at 8 7/8 percent (FY 1988).

BASIS OF BENEFIT-COST RATIO: Benefits are from the Supplemental Project Report, completed March 1999.

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST	STATUS (1 Jan 2006)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		\$ 39,417,000		Entire Project	93	To Be Determined
Programmed Construction	39,417,000					
Unprogrammed Construction	0					
PHYSICAL DATA						
Estimated Non-Federal Cost		16,812,000 ¹				
Programmed Construction	12,998,000			Floodwall & Levee Work		
Cash Contributions	9,532,000			Small Gravity Drains		21
Other Costs	3,466,000			Large Gravity Drains		10
Estimated Non-Federal Cost				Closure Structures		20
Unprogrammed Construction	3,814,000			Relief Wells		300
Other Costs	3,814,000			Pumping Stations		12
Total Estimated Programmed Construction Cost		\$52,415,000		Drainage Control Structures		3
Total Estimated Unprogrammed Construction Cost		3,814,000		Bridge Replacements		3
Total Estimated Project Cost		56,229,000		Bridge Abandonment and Removal		4
				Channels		6 segments
Allocations to 30 September 2003		32,148,000				
Allocation for FY 2004		602,000				
Allocation for FY 2005		436,000				
Conference Allowance for FY 2006		1,000,000				
Allocation for FY 2006		990,000 ²				
Allocations to 30 September 2006		34,176,000	87			
Allocation Requested for FY 2007		1,700,000	91			
Programmed Balance to Complete After FY 2007		3,541,000				
Unprogrammed Balance to Complete After FY 2007		0				

¹ A cash contribution of \$12,431,000 is partially offset by a credit of \$2,899,000 for work-in-kind on completed work.

² Reflects \$10,000 rescission in accordance with the Department of Defense, Emergency Supplemental Appropriations to Address Hurricanes in the Gulf of Mexico, and Pandemic Influenza Act, 2006.

JUSTIFICATION: The original project, authorized by the Flood Control Act of 1936, provides protection for 85,000 acres of business, industrial and residential areas, including East St. Louis, Granite City, Madison, Venice, Brooklyn, Fairmont and Sauget, Illinois. Urban design flood protection is provided for a Mississippi River 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 causing the evacuation of 1,200 persons and an estimated \$35,000,000 in damages. The need for extensive rehabilitation work was verified during preparation of a General Design Memorandum for the project during Fiscal Year 1990. The extensive rehabilitation work needed is the result of several decades of deferral of required project maintenance due to the limited financial capability of the local sponsor, Metro East Sanitary District. A tax referendum, which was passed in February 1989, provides the Metro East Sanitary District with increased tax revenue necessary to cost share in the rehabilitation project and to perform the necessary maintenance of the project after the rehabilitation is completed. The average annual benefits, all flood control, are \$30,159,000.

FISCAL YEAR 2006: Current year funds are being used as follows:

Sand Flank Levee, Phase 1	\$250,000
Cahokia Inlet, Phase 2	450,000
Planning, Engineering and Design	206,000
Construction Management	84,000
Total	\$ 990,000

FISCAL YEAR 2007: The requested amount will be applied as follows:

North Pump Station Triple Box Culvert, Phase 1, Task Order 1	\$250,000
Sand Flank Levee, Phase 2	\$1,050,000
Planning, Engineering and Design	300,000
Construction Management	100,000
Total	\$ 1,700,000

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.	\$ 613,000	
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.	12,431,000	\$ 426,000
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities where necessary for construction of the project.	3,768,000	
Total Non-Federal Costs	\$16,812,000	\$ 426,000

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 \$16,812,000, which includes a cash contribution of \$12,431,000, is an increase of \$9,208,000 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.

COMPARISON OF FEDERAL COSTS ESTIMATES: The current Federal cost estimate of \$39,417,000 is an increase of \$80,000 from the latest estimate of \$39,337,000 presented to Congress (FY 2006). This change includes the following items:

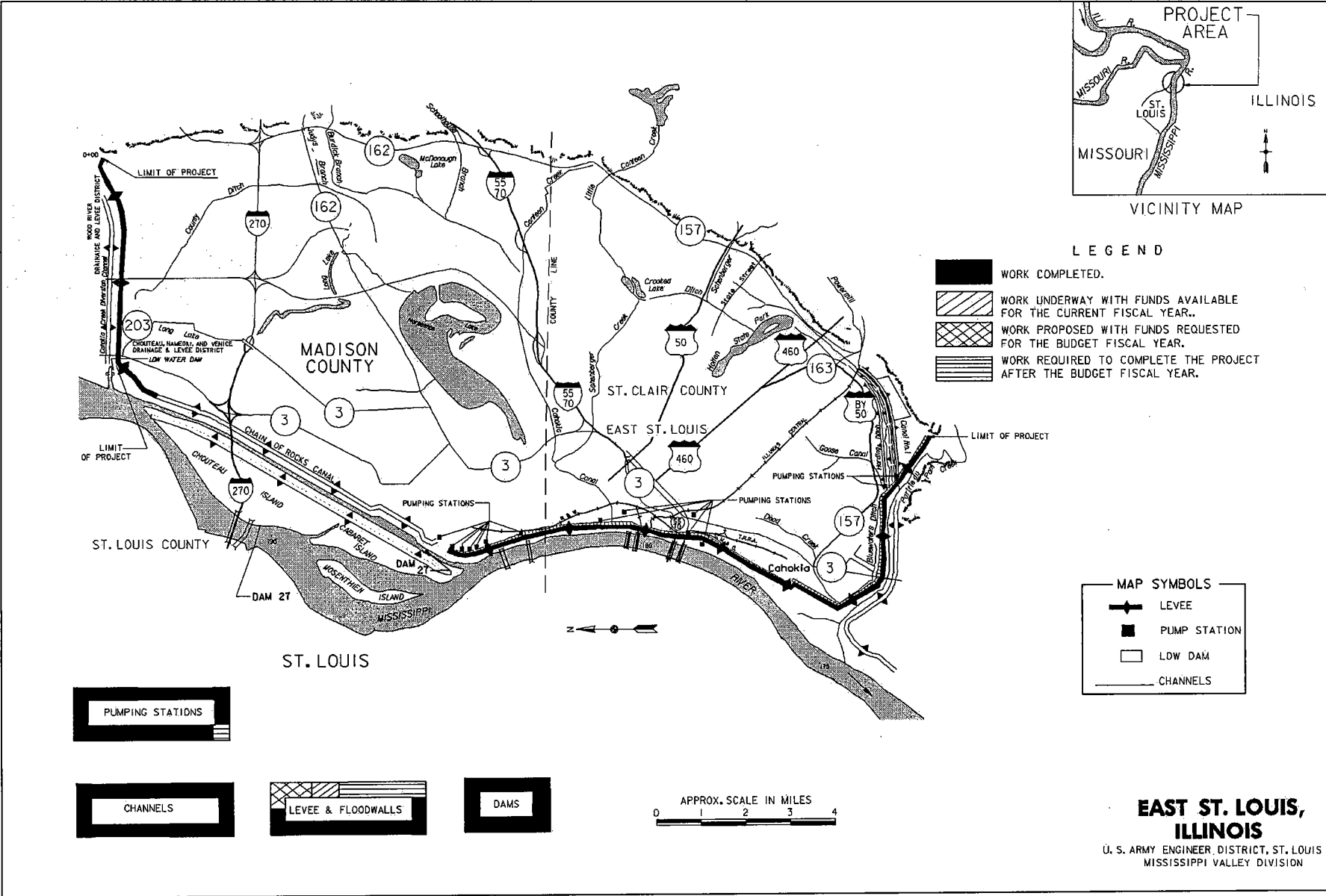
Item	Amount
Price Escalation of Construction Contracts	\$ 192,000
Post Contract Award and Other Estimating Adjustments (including contingency adjustments)	-112,000
Total	\$ 80,000

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 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.



APPROPRIATION TITLE: Construction, General – Local Protection (Flood Control)

PROJECT: Grand Forks, North Dakota – East Grand Forks, Minnesota (Continuing)

LOCATION: Grand Forks is located in Grand Forks County in eastern North Dakota along the Red River of the North about 70 miles south of the Canadian border. East Grand Forks is located in Polk County in northwestern Minnesota across the river from Grand Forks.

DESCRIPTION: The National Economic Development and Locally Preferred Plan is a set-back flood barrier project with a level of protection for the 0.47 percent exceedence frequency event. This level of protection is equivalent to the 1997 flood. The project will consist of 30.0 miles of levees, floodwalls, and road raises. Approximately 260 residential structures will need to be acquired for project construction. All work is programmed.

AUTHORIZATION: Omnibus Consolidated and Emergency Supplemental Appropriations Act 1999, Section 137 (Public Law 105-277).

REMAINING BENEFIT-REMAINING COST RATIO: 5.1 to 1 at 7 percent.

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

INITIAL BENEFIT-COST RATIO: 1.1 to 1 at 7 1/8 percent (FY 2000).

BASIS OF BENEFIT-COST RATIO: Benefits are from the latest available evaluation approved in December 1998 at December 1997 price levels.

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST	STATUS (1 Jan 2006)	PCT Cmpl	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		\$220,900,000			
Estimated Non-Federal Cost		195,800,000	Entire Project	92	Sep 2007
Cash Contribution	\$ 29,616,000				
Other	166,184,000				
Total Estimated Project Cost		\$416,700,000			
Allocations to 30 September 2003		\$108,189,000			
Allocation for FY 2004		30,802,000			
Allocation for FY 2005		30,291,000			
Conference Allowance for FY 2006		40,000,000			
Allocation for FY 2006		39,600,000	1/		
Allocations to 30 September 2006		208,882,000		95	
Allocation Requested for FY 2007		12,018,000		100	
Programmed Balance to Complete After FY 2007		0			
Unprogrammed Balance to Complete After FY 2007		0			

PHYSICAL DATA

Permanent Levees	26.6 miles	Pumping Stations	23
Tieback Levees	3.3 miles	Major Gatewells	2
Road Raises	9	English Coulee Diversion Channel	4.5 miles
Heartsville Coulee Diversion Channel	1.2 miles		

1/ Reflects \$400,000 rescission in accordance with the Department of Defense, Emergency Supplemental Appropriations to Address Hurricanes in the Gulf of Mexico, and Pandemic Influenza Act, 2006.

JUSTIFICATION: Since 1950, twelve floods have threatened the Grand Forks-East Grand Forks area. Until 1997, a permanent levee in one short reach of Grand Forks, plus flood fight efforts in other areas of the two cities have prevented significant damages. The catastrophic flood of 1997 was the largest ever experienced in the area. Despite major emergency flood fight efforts, both cities were inundated. Estimates indicate that over \$1.5 billion in damages were sustained in the two cities as a result of the 1997 flood. The threat of future flooding has led to a sense of urgency for an expedited permanent solution. The recommended plan would provide reliable flood control for residents of Grand Forks and East Grand Forks. Average annual benefits are as follows:

Annual Benefits	Amount
Flood Control	\$30,514,000
Recreation	2,106,400
Total	\$32,620,400

FISCAL YEAR 2006: Current year funds are being used as follows:

East Grand Forks (Phase III)	\$ 4,000,000
Grand Forks (Phase III)	10,000,000
Heartsville Coulee	6,000,000
East Grand Forks (Phase IV)	7,450,000
Grand Forks (Phase IV)	7,000,000
Lands and Damages	150,000
Planning, Engineering and Design	2,000,000
Construction Management	3,000,000
Total	\$39,600,000

FISCAL YEAR 2007: The requested amount will be applied as follows:

East Grand Forks (Phase IV)	\$4,718,000
Grand Forks (Phase IV)	4,000,000
Planning, Engineering and Design	1,700,000
Construction Management	1,600,000
Total	\$12,018,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal 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.	\$ 100,090,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	66,094,000	
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.	19,758,000	\$ 1,012,250
Pay one-half of the separable and joint costs allocated to recreation and bear all costs of operation, maintenance, repair, rehabilitation and replacement of recreation facilities.	9,858,000	346,750
Federal reimbursement to non-Federal sponsor for costs incurred in excess of 50 percent of the costs allocated to flood control.	0	
Total Non-Federal Costs	\$ 195,800,000	\$ 1,359,000

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

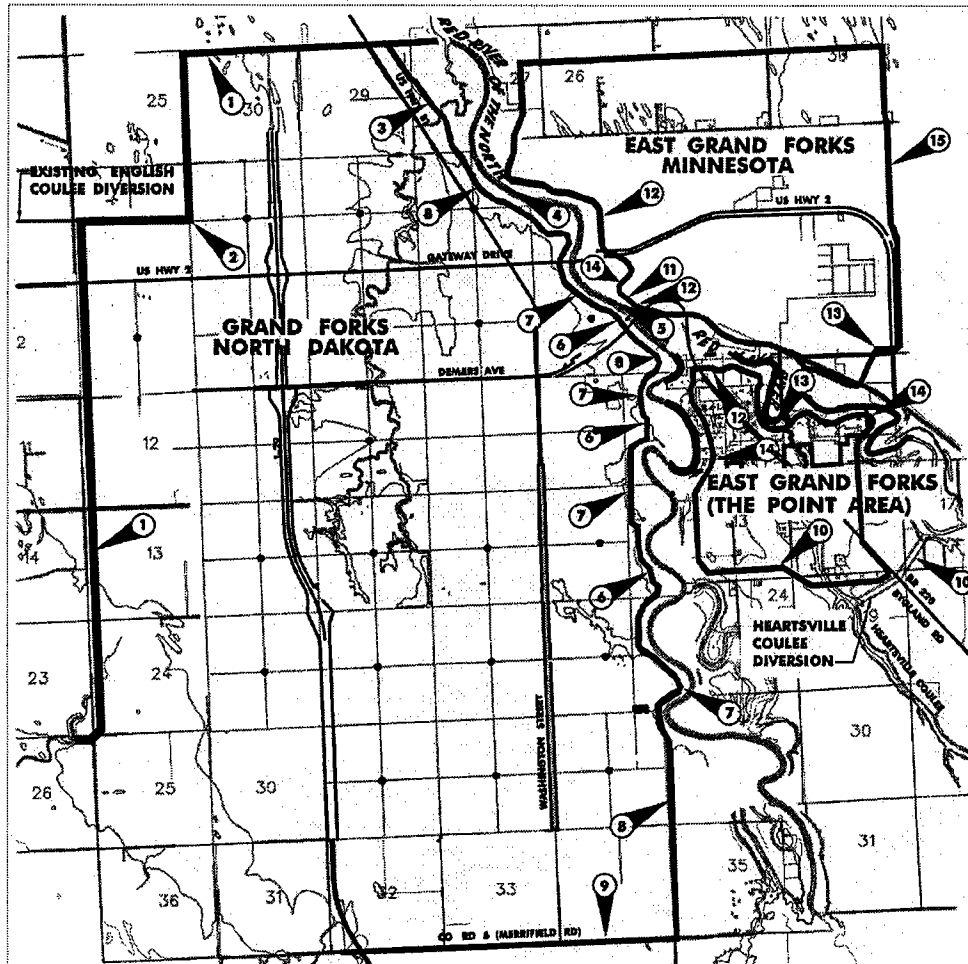
STATUS OF LOCAL COOPERATION: The non-Federal sponsors are the cities of Grand Forks, North Dakota and East Grand Forks, Minnesota. A Project Cooperation Agreement (PCA) was executed in January 2000. The non-Federal funding requirements will be met using reallocation of existing taxes, implementation of a new use tax, a city-wide assessment, and state bond funds. The District Commander approved the sponsors financing plans on 21 October 1999. On 29 December 2004, the PCA was amended to allow the sponsor to accelerate their provision of funds to the Government.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$220,900,000 is an increase of \$5,600,000 over the latest estimate (\$215,300,000) presented to Congress (FY 2006). This change includes the following items:

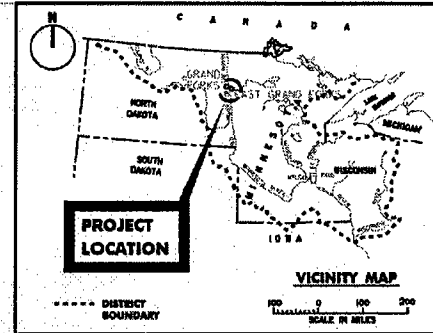
Item	Amount
Price Escalation on Construction Features	\$ 138,000
Post Contract Award and Other Estimating Adjustments (including contingency adjustments)	5,462,000
Total	\$ 5,600,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An Environmental Impact Statement was prepared in conjunction with the General Reevaluation Report which was completed in December 1998. The Record of Decision was signed 17 February 1999.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in Fiscal Year 1997. Funds to initiate construction were appropriated in Fiscal Year 2000. The removal of the Pedestrian Bridge, the Riverside Dam bank stabilization, Grand Forks Phase I Levees, East Grand Forks Phase I Levees, Grand Forks and East Grand Forks Phase II Levees, English Coulee Diversion and Pump Station, and supply contracts for pumps and equipment are all essentially complete. Construction continues on the Grand Forks and East Grand Forks Phase III Levees and Heartsville Coulee Diversion. Construction contracts for the Grand Forks and East Grand Forks Phase 4 Levees were awarded in Fiscal Year 2005 and are scheduled for completion in Fiscal Year 2007.



PROJECT STATUS MAP
 2500 0 2500 5000
 SCALE IN FEET



	CUMULATIVE % COMPLETE		
	THRU FY-66	THRU FY-67	THRU FY-68
1 ENGLISH COULEE DIVERSION	100	100	100
2 55TH STREET PUMP STATION	100	100	100
3 ENGLISH COULEE PUMP STATION	100	100	100
4 RIVERSIDE DAM	100	100	100
5 PEDESTRIAN BRIDGE REMOVAL	100	100	100
6 PHASE 1 LEVEES (3 REACHES)	100	100	100
7 PHASE 2 LEVEES (4 REACHES)	100	100	100
8 PHASE 3 LEVEES	100	100	100
9 PHASE 4 LEVEES	85	100	100

	CUMULATIVE % COMPLETE		
	THRU FY-66	THRU FY-67	THRU FY-68
10 HEARTSVILLE COULEE DIVERSION	100	100	100
11 INVISIBLE FLOODWALL	100	100	100
12 PHASE 1 LEVEES (3 REACHES)	100	100	100
13 PHASE 2 LEVEES (2 REACHES)	100	100	100
14 PHASE 3 LEVEES	100	100	100
15 PHASE 4 LEVEES	80	100	100

**GRAND FORKS, NORTH DAKOTA-
 EAST GRAND FORKS, MINNESOTA**
 U.S. ARMY CORP ENGINEERS
 MISSISSIPPI VALLEY DIV. - ST. PAUL, DISTRICT

APPROPRIATION TITLE: Construction, General-Local Protection (Flood Control)

PROJECT: Sheyenne River, North Dakota (Continuing)

LOCATION: The project is located in southeastern North Dakota along the Sheyenne River, from near Baldhill Dam downstream to the confluence with the Red River of the North at Fargo. Parts of Griggs, Steele, Barnes, Ransom, Richland and Cass Counties are included in the project area.

DESCRIPTION: The project, as authorized, consists of (1) 12.7 miles of levees and a 6.8-mile flood diversion channel at West Fargo, (2) 14.8 miles of levees and a 7.4 mile flood diversion channel from Horace to West Fargo, (3) a 5-foot raise of the Baldhill Dam flood control pool, and (4) a dam and reservoir with approximately 35,000 acre-feet of storage for flood control on the Maple River. The plan, excluding the Maple River dam, would reduce flood damages to approximately 2,000 residences and farmsteads and 50,000 acres of agricultural land. Estimated damages caused by a one percent chance flood are \$109 million. On an average annual basis, over \$28 million in flood damages are estimated in the basin. Most of these damages occur in the West Fargo urban area.

Construction includes the West Fargo Unit (\$20,579,000 Federal and \$7,545,000 Non-Federal), the Horace to West Fargo Unit (\$8,787,000 Federal and \$3,143,000 Non-Federal), and the Baldhill Dam Unit (\$9,139,000 Federal and \$3,046,000 non-Federal). All work is programmed.

The Maple River Reservoir Unit was deleted from the project due to lack of economic justification.

AUTHORIZATION: Water Resources Development Act of 1986 (Public Law 99-662).

REMAINING BENEFIT-REMAINING COST RATIO: 4.6 to 1 at 7 percent for the Baldhill Pool Raise Unit.

TOTAL BENEFIT-COST RATIO: 1 to 1 at 7 percent for the Baldhill Pool Raise Unit.

INITIAL BENEFIT-COST RATIO: 1.1 to 1 at 7 1/8 percent (FY 2000).

BASIS OF BENEFIT-COST RATIO: Benefits for the remaining unit, the Baldhill Pool Raise, are from the latest available evaluation (Design Memorandum) dated November 1998, revised June 1999, at October 1997 price levels.

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST	STATUS (1 Jan 2006)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	\$ 38,505,000		West Fargo Unit	98	Sep 2007
Estimated Non-Federal Cost	13,734,000		Horace to West Fargo Unit	100	Nov 1992
Cash Contributions	\$ 3,449,000		Baldhill Dam Unit	98	Sep 2007
Other Costs	10,285,000				
Total Estimated Project Cost	\$ 52,239,000	¹	Total Project	99	Sep 2007
Allocations to 30 September 2003	\$ 34,030,000	²			
Allocation for FY 2004	2,172,000				
Allocation for FY 2005	19,000				
Conference Allowance for FY 2006	550,000				
Allocation for FY 2006	544,000	³			
Allocations to 30 September 2006	36,765,000		95		
Allocation Requested for FY 2007	1,740,000		100		
Programmed Balance to Complete After FY 2007	0				
Unprogrammed Balance to Complete after FY 2007	0				

PHYSICAL DATA

WEST FARGO UNIT:

Earthen Levee 12.7 miles
Flood Diversion Channel 6.8 miles

HORACE TO WEST FARGO UNIT:

Trapezoidal Excavated Channel 7.4 miles
Earthen Levees 14.8 miles

BALDHILL DAM UNIT:

Flood Control Pool Raise 5-foot raise
(by modifications to gates - not embankment)

¹ Excludes all costs associated with the Maple River Unit. The Maple River Unit has been deleted from the project due to lack of economic justification.

² Excludes \$475,000 sunk cost for the Maple River Unit and \$1,150,000 for Kindred Dam.

³ Reflects \$6,000 rescission in accordance with the Department of Defense, Emergency Supplemental Appropriations to Address Hurricanes in the Gulf of Mexico, and Pandemic Influenza Act, 2006.

JUSTIFICATION: The Sheyenne River, located in the southeastern portion of North Dakota, drains 7,140 square miles into the Red River of the North which flows northward to Lake Winnipeg in Manitoba, Canada. Recurrent flooding causes serious damage at the communities of Valley City, Lisbon, and West Fargo, and along the Sheyenne River. High Sheyenne River flows also aggravate downstream flooding along the Red River of the North. The maximum flood of record in 1882 inundated much of Valley City and Kindred. Over 100,000 acres of cropland in the basin were flooded by the Red River of the North and the Sheyenne, Wild Rice, and Maple Rivers. On 5 July 1975, the flood in the Sheyenne River basin crested at Kindred within 0.3 foot of the record flood, and the crest at West Fargo set a new record. Actual flood damages for this flood were \$96,762,000 of which \$2,132,000 were urban and \$94,630,000 were rural. Urban flood damages of \$14,159,000 were prevented due to emergency levee protection. The rural damages include cross-country (sheet flow) as well as overbank flooding. In 1979, the Sheyenne River at West Fargo reached a flow of 3,500 cubic feet per second and a stage .03 foot less than the 1975 summer flood. Damages including the cost of successful flood fights were \$7,388,000, of which \$1,903,000 were urban, \$4,676,000 agricultural, and \$809,000 transportation. In July and August 1993, intense rainstorms over the Sheyenne, Maple and Rush River watersheds caused flood damages in many areas. In Valley City, an estimated \$3 million in flood damages were incurred. In the Harwood area, just downstream from the West Fargo levees and diversion project, widespread agricultural and rural residential damages were sustained. Both the Horace and the West Fargo levees and diversion projects prevented substantial damages (\$8 million and \$36 million, respectively) in their first year of operation. The average annual flood damages for the Sheyenne River basin from overbank flooding over an assumed 100-year period at October 1994 price levels are estimated at \$39,905,061, of which \$37,506,749 are urban, \$2,053,546 agricultural and \$344,766 transportation. The recommended improvements will protect about 2,000 residences and farmsteads in the 100-year floodplain and reduce flood damages on over 50,000 acres of agricultural land. The average annual flood control benefits are \$22,374,600.

FISCAL YEAR 2006: Current year funds are being used as follows:

WEST FARGO UNIT:

Pump Station	\$494,000
Planning, Engineering and Design	10,000
Construction Management	40,000
Total	\$ 544,000

FISCAL YEAR 2007: The requested amount will be applied as follows:

BALDHILL DAM UNIT:

Monumentation	\$ 238,000
Planning, Engineering and Design	5,000
Construction Management	20,000

Subtotal	\$ 263,000
----------	------------

WEST FARGO UNIT:

Diversion Channel	\$ 1,150,000
Planning, Engineering and Design	230,000
Construction Management	97,000

Subtotal	\$ 1,477,000
----------	--------------

Total	\$ 1,740,000
-------	--------------

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
WEST FARGO UNIT:		
Provide lands, easements, rights-of-way, and dredged material disposal areas.	\$ 1,280,000	
Modify or relocate utilities, roads, bridges, (except railroad bridges), and other facilities, where necessary for the construction of the project.	4,858,000	
Pay 5 percent of the costs allocated to flood control in cash and bear all costs of operation, maintenance, repair, rehabilitation, and replacement of flood control facilities.	1,407,000	\$ 38,000
Subtotal	\$ 7,545,000	\$ 38,000

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
HORACE TO WEST FARGO UNIT:		
Provide lands, easements, rights-of-way, and dredged material disposal areas.	\$ 540,000	
Modify or relocate utilities, roads, bridges, (except railroad bridges), and other facilities, where necessary for the construction of the project.	2,007,000	
Pay 5 percent of the costs allocated to flood control in cash and bear all costs of operation, maintenance, repair, rehabilitation, and replacement of flood control facilities.	596,000	\$ 32,800
Subtotal	\$ 3,143,000	\$ 32,800
BALDHILL DAM POOL RAISE:		
Provide lands, easements, rights-of-way, and dredged material disposal areas.	\$ 1,600,000	
Pay 11.9 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 and bear all costs of operation, maintenance, repair, rehabilitation and replacement of Flood Control Facilities.	1,446,000	\$ 3,200
Subtotal	\$ 3,046,000	\$ 3,200
Total Non-Federal Cost	\$ 13,734,000	\$ 74,000

The non-Federal sponsors have also agreed to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: The Southeast Cass Water Resource District is the local sponsor for the West Fargo Unit and the Horace to West Fargo Unit. The Local Cooperation Agreement (LCA) for the West Fargo Unit was executed on 25 July 1988. An amendment to the LCA for an additional pump station was executed on 4 June 2001. (SEE OTHER INFORMATION.) The LCA for the Horace Unit was executed on 6 March 1990. In April 1994, the Sheyenne River Joint Water Resource District (WRD) was formed to act as the non-Federal sponsor for the flood control pool raise at the Baldhill Dam. The Joint WRD consists of seven member water resource districts, including both upstream and downstream representatives. The Project Cooperation Agreement for the Baldhill Pool Raise was executed on 31 May 2000.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$38,505,000 is an increase of \$1,497,000 from the latest estimate (\$37,008,000) presented to Congress (FY 2006). This change includes the following item:

Item	Amount
Post Contract Award and Other Estimating Adjustments	\$1,497,000
Total	\$1,497,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Draft Environmental Impact Statement was filed with the Environmental Protection Agency (EPA) on 28 May 1982. The final statement was filed with the EPA on 13 April 1984. The Record of Decision was signed on 6 June 1987. The Finding of No Significant Impact for modifications to the Baldhill Dam Unit was signed on 19 October 1998.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1976 and funds to initiate construction were appropriated in FY 1990. Floods occurred in 1994, 1995, 1996, and 1997, during which the performance of the Horace and West Fargo Units was excellent, meeting all expectations. A significant rainfall event in June 2000 overwhelmed the pump station for the West Fargo Unit, requiring numerous portable pumps to keep the interior ponding level of the Sheyenne River in check. At the request of the local sponsor, the interior flood control for the unit was reevaluated, and an additional pump station was constructed in order to provide the authorized level of protection. Additional significant erosion of the West Fargo diversion channel was observed in 2005. The erosion is causing the diversion channel walls to slough and will be addressed with funds requested in FY 2007.

SUMMARIZED FINANCIAL DATA FOR PROGRAMMED SEPARABLE ELEMENTS:

WEST FARGO UNIT:

Estimated Federal Cost		\$20,579,000
Estimated Non-Federal Cost		7,545,000
Cash Contributions	\$1,407,000	
Other Costs	6,138,000	
Total West Fargo Unit		\$28,124,000

REMAINING BENEFIT-REMAINING COST RATIO FOR WEST FARGO UNIT: The remaining benefit-remaining cost ratio is not applicable since construction is substantially complete.

TOTAL BENEFIT-COST RATIO FOR WEST FARGO UNIT: Total benefit-cost ratio for the entire project is 1.1 to 1 at 7-1/8 percent.

HORACE TO WEST FARGO UNIT:

Estimated Federal Cost		\$ 8,787,000
Estimated Non-Federal Cost		3,143,000
Cash Contributions	\$ 596,000	
Other Costs	2,547,000	
Total Horace to West Fargo Unit		\$11,930,000

REMAINING BENEFIT-REMAINING COST RATIO FOR HORACE TO WEST FARGO UNIT: The remaining benefit-remaining cost ratio is not applicable since construction is substantially complete.

TOTAL BENEFIT-COST RATIO FOR HORACE TO WEST FARGO UNIT: Total benefit-cost ratio for the entire project is 1.1 to 1 at 7-1/8 percent.

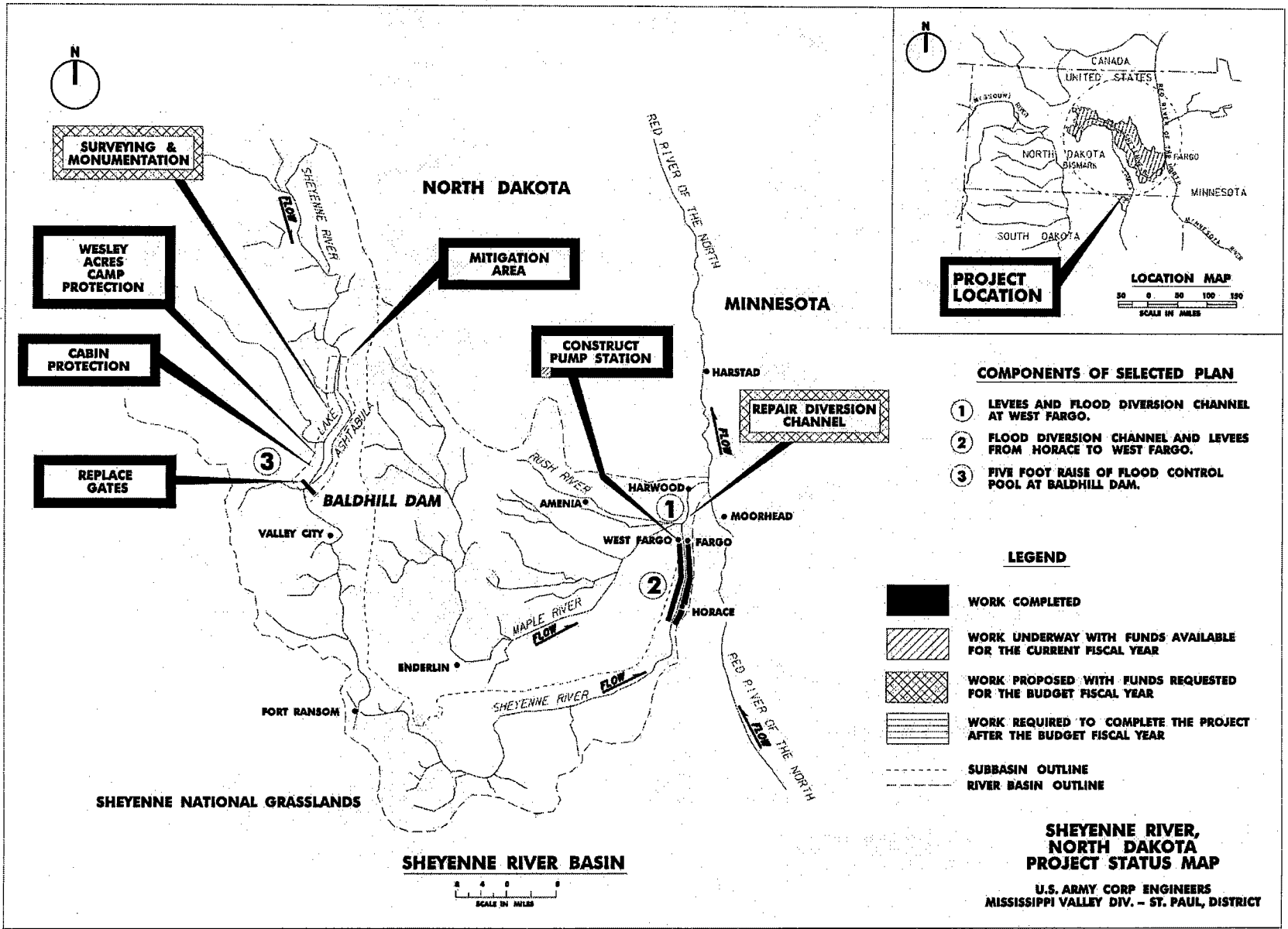
SUMMARIZED FINANCIAL DATA FOR PROGRAMMED SEPARABLE ELEMENTS (Continued):

BALDHILL DAM UNIT:

Estimated Federal Cost		\$9,139,000
Estimated Non-Federal Cost		3,046,000
Cash Contributions	\$1,446,000	
Other Costs	1,600,000	
Total Baldhill Dam Unit		\$12,185,000

REMAINING BENEFIT-REMAINING COST RATIO FOR BALDHILL DAM UNIT: 4.6 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO FOR BALDHILL DAM UNIT: Total benefit-cost ratio for the entire project is 1.1 to 1 at 7-1/8 percent.



FLOOD AND COASTAL STORM DAMAGE REDUCTION

CONSTRUCTION

NORTH ATLANTIC DIVISION

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: 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: 6.4 to 1 at 7 percent

TOTAL BENEFIT-COST RATIO: 3.1 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 2006)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Programmed Work		
Initial Construction	85	To be determined
Periodic Nourishment	0	To be determined
Entire Project	20	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 at the eastern and western
ends of the restored beach.

Fillet of beachfill extending
westward from groin at 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 2003	16,330,000		
Allocation for FY 2004	697,000		
Allocation for FY 2005	-700,000		
Conference allowance for FY 2006	0		
Allocation for FY 2006	0		
Allocations through FY 2006	16,327,000	15	
Allocation Requested for FY 2007	2,400,000	18	
Programmed Balance to Complete after FY 2007	53,173,000		
Unprogrammed Balance to Complete after FY 2007	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.

Fiscal Year 2006: Funds were used to initiate and complete plans & specifications of the T-Groins downdrift of West 37th Street terminal groins.

Division: North Atlantic

District: New York

Atlantic Coast of New York City, Rockaway Inlet to Norton Point, Coney Island, NY

Fiscal Year 2007: The requested amount will be applied as follows:

Construct T-Groins in Sea Gate Area	\$ 2,200,000
Planning, Engineering and Design	\$ 50,000
Construction Management	\$ 150,000
Total	\$ 2,400,000

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 PCA will be modified in April 2007.

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal cost estimate of \$105,800,000 is a decrease of \$6,300,000 over the latest estimate (112,100,000) presented to Congress (FY 2004). This change includes the following items:

Item	Amount
Price Escalation on Construction Features	- \$6,300,000
Total	- \$6,300,000

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.

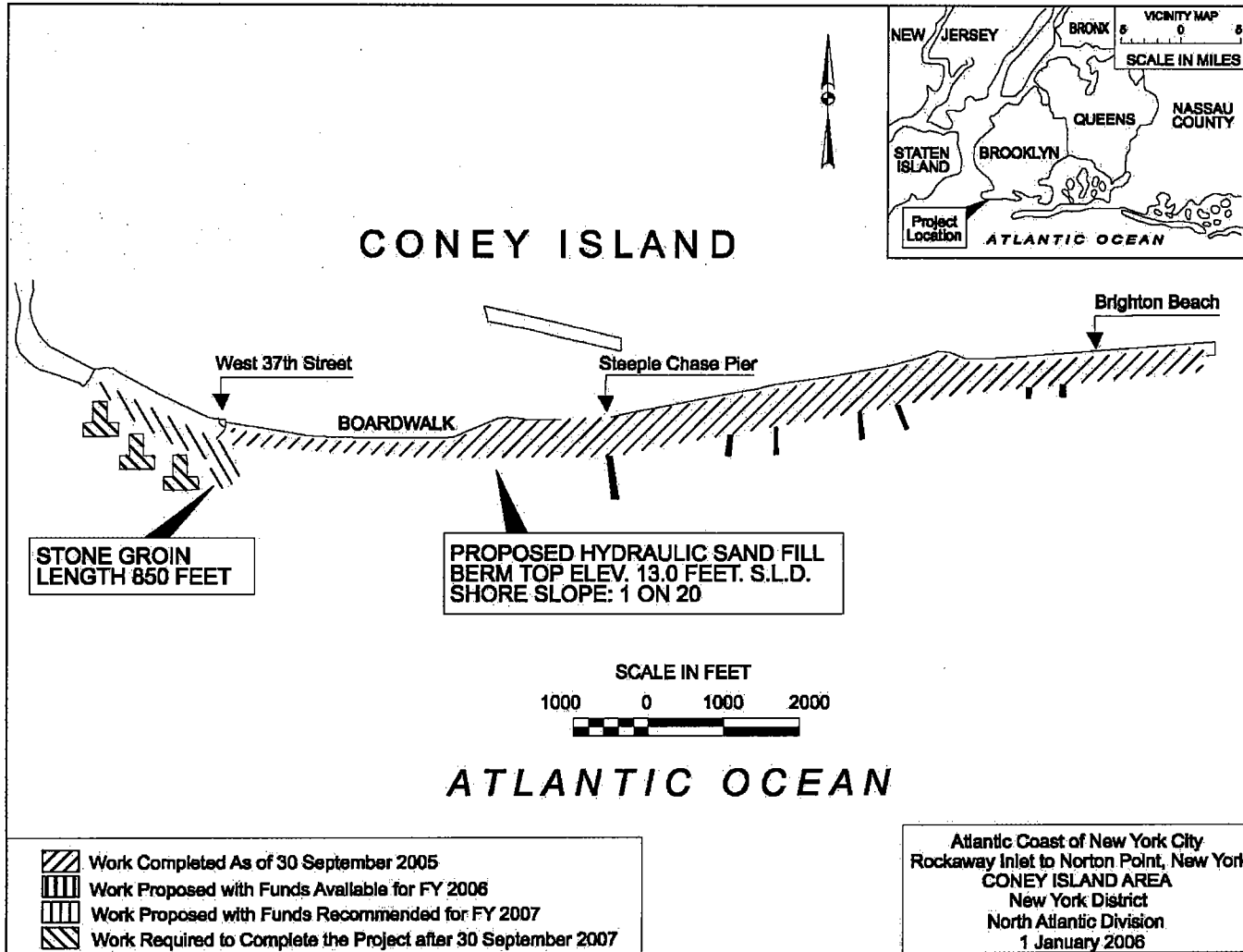
Division: North Atlantic

District: New York

Atlantic Coast of New York City, Rockaway Inlet to Norton Point, Coney Island, NY

Corps of Engineers

Department of the Army



APPROPRIATION TITLE: Construction, General – Beach Erosion Control

PROJECT: Barnegat Inlet to Little Egg Harbor Inlet, New Jersey (continuing)

LOCATION: The project is located along the Atlantic coast of New Jersey approximately 14 miles north of Atlantic City, covering Long Beach Island, New Jersey.

DESCRIPTION: The selected plan consists of berm and dune restoration utilizing sand obtained from offshore borrow sources. This plan would require 4.95 million cubic yards of sand for initial berm placement, and 2.45 million cubic yards for dune placement. Approximately 1.9 million cubic yards would be needed for periodic nourishment every 7 years for the 50-year period of analysis. The template for the plan is a dune at an elevation of +22-ft NAVD, with a 30-ft dune crest width; 1V:5H slopes from dune crest down to a berm at elevation +8-ft NAVD, with a berm width of 125 feet from the centerline of the dune.

AUTHORIZATION: Section 101 (a) (1) of WRDA 2000.

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

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

INITIAL BENEFIT-COST RATIO: 1.8 to 1 at 7 percent (FY 2004)

BASIS OF BENEFIT-COST RATIO: Benefits and costs (October 1999 price level) based on the Chief of Engineers Report dated 26 July 2000.

SUMMARIZED FINANCIAL DATA:	STATUS: (1 Jan 2006)	PERCENT COMPLETE	PHYSICAL
			COMPLETION SCHEDULE
Estimated Federal Cost	\$ 112,000,000		
Initial Construction	\$ 48,422,000		
Periodic Nourishment	\$ 63,578,000		
Estimated Non-Federal Costs	\$ 90,000,000		
Initial Construction	\$27,300,000		
Cash Contributions	\$ 26,075,000		
Other Costs	\$1,225,000		
Periodic Nourishment	\$62,700,000		
Cash Contributions	\$ 62,700,000		
Other Costs	0		
Total Estimated Project Cost	\$ 202,000,000		
Initial Construction	\$ 75,722,000		
Periodic Nourishment	\$ 126,278,000		
		Initial Beachfill	1 To be Determined
		Periodic Nourishment	0 To be Determined
		Entire Project	0 To be Determined
		PHYSICAL DATA:	
		Initial Placement: Berm-4.95 million cubic yards of sand; Dune - 2.45 million cubic yards of sand.	
		Periodic Nourishment: 1.9cy every 7 years for 50 years	

Division: North Atlantic

District: Philadelphia

Barnegat Inlet to Little Egg Harbor Inlet, NJ

SUMMARIZED FINANCIAL DATA: (continued)

		ACCUM. PCT. OF EST FED COST
Allocations to 30 September 2003	\$ 948,500	
Allocations for FY 2004	\$ 183,000	
Allocations for FY 2005	\$ 331,000	
Conference Allowance for FY 2006	\$ 5,000,000	
Allocation for FY 2006	\$ 4,950,000 ^{1/}	
Allocations through FY 2006	\$ 6,799,000	6
Allocation Requested for FY 2007	\$ 2,500,000	8
Programmed Balance to Complete after FY 2007	\$ 39,173,000	
Unprogrammed Balance to Complete after FY 2007	\$ 63,578,000	

^{1/} Reflects \$50,000 reduction due to rescission

JUSTIFICATION: Public and private property are subject to storm damage from wave attack and tidal inundation. During times of storms, extensive damages have occurred and lives have been lost. Major storms occurred in September 1944, March 1962, March 1984, September 1985, October 1991, January 1992, and December 1992. The coastal storm of March 1962 resulted in physical damage to 1,234 structures and damages of \$19,000,000 at that time. Local interests report damages of \$1,700,000, \$2,000,000 and \$2,300,000 for the storms of 1984, October 1991 and January 1992, respectively. The December 1992 storm produced the second highest water levels recorded at the Atlantic City, New Jersey tide gage, resulting in structural damage, extensive beach and dune erosion and overwash. Damage to public facilities which qualified for FEMA assistance totaled \$1,800,000 for Long Beach Island. Average annual benefits are \$10,597,000 (Oct. 1999 price level).

FISCAL YEAR 2006: Funds are being used for initial construction

FISCAL YEAR 2007: The requested amount will be applied as follows:

Initial Construction	\$ 2,367,000
Planning, Engineering and Design:	\$ 52,000
Construction Management:	\$ 81,000
Total	\$ 2,500,000

Division: North Atlantic

District: Philadelphia

Barnegat Inlet to Little Egg Harbor Inlet, 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:

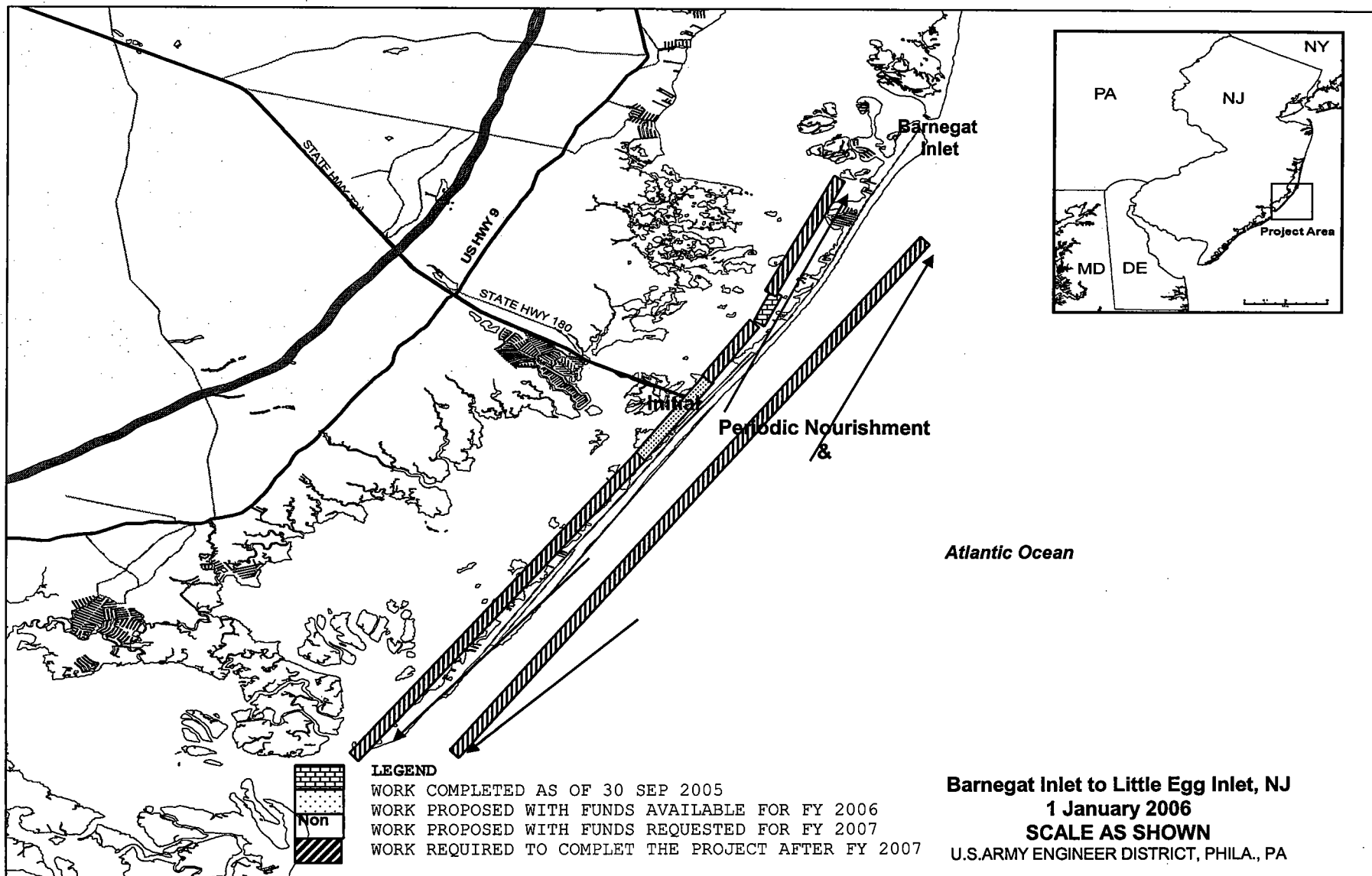
	Payments during Construction and Reimbursement	Annual Operation, Maintenance, and Replacement Costs
Provide 35 percent of the initial construction costs assigned to the non-mitigation portion of the project for hurricane and storm damage reduction	\$26,075,000	
Provide all lands, easements, rights-of-way, and relocations.	\$ 1,225,000	
Provide during construction 35 percent of each periodic nourishment costs assigned to the non-mitigation portion of the project for hurricane and storm damage reduction	\$ 62,700,000	
Bear all costs of operation, maintenance, repair, replacement, and rehabilitation of the completed project.		\$110,000
Total Non-Federal Cost	\$ 90,000,000	\$110,000

STATUS OF LOCAL COOPERATION: The non-Federal sponsor is the State of New Jersey Department of the Environment. The Project Cooperation Agreement was executed on 17 August 2005.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$112,000,000 is the initial cost estimate submitted to Congress.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Final Environmental Assessment was completed in September 1999.

OTHER INFORMATION: Initial construction funds were appropriated in FY 2004. 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.



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: 1.3 to 1 at 7 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	154,100,000	
Initial Construction	67,000,000	
Periodic Nourishment	87,100,000	
determined		
Unprogrammed Construction	437,000,000	
Initial Construction	113,400,000	
determined		
Periodic Nourishment	323,600,000	
Estimated Non-Federal Cost		295,200,000
Programmed Construction	58,700,000	
Initial Construction	19,500,000	
Cash Contributions	18,800,000	
Other Costs	700,000	
Periodic Nourishment	39,200,000	
Cash Contribution	39,200,000	
Other Costs	0	
Unprogrammed Construction	236,500,000	
Initial Construction	61,100,000	
Cash Contributions	48,850,000	
Other Costs	12,250,000	
Periodic Nourishment	175,400,000	
Cash Contribution	175,400,000	
Other Costs	0	
Total Estimated Programmed Construction	212,800,000	
Initial Construction	86,500,000	
Periodic Nourishment	126,300,000	
Total Estimated Unprogrammed Construction Cost	673,500,000	
Initial Construction	174,500,000	
Periodic Nourishment	499,000,000	
Total Estimated Project Cost		886,300,000
Initial Construction	261,000,000	
Periodic Nourishment	625,300,000	

STATUS: (1 Jan 2006)	PERCENT COMPLETE	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
Initial Construction	100	Dec 1997
Periodic Nourishment	10	To be
West of Shinnecock Interim		
Initial Construction	100	Mar 2005
Periodic Nourishment	10	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>
Reformulation Study	80	To be determined
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

SUMMARIZED FINANCIAL DATA (continued)	ACCUM. PCT. OF EST. FED. COST
Allocations to 30 September 2003	65,871,000
Allocation for FY 2004	2,266,000
Allocation for FY 2005	7,547,000
Conference Allowance for FY 2006	1,875,000
Allocation for FY 2006	1,856,000 ^{1/}
Allocations Through FY 2006	77,540,000 13
Allocation Requested for FY 2007	2,500,000 14
Programmed Balance to Complete After FY 2007	74,060,000
Unprogrammed Balance to Complete After FY 2007	437,000,000

^{1/} Reflects \$19,000 reduction due to rescission.

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 was approximately \$6,600,000.

FISCAL YEAR 2006: The allocated amount is being used to continue West of Shinnecock and Westhampton Beach required environmental monitoring, and the reformulation study.

FISCAL YEAR 2007: The requested amount will be applied as follows:

Continue West of Shinnecock (Required Environmental Monitoring)	400,000
Continue Westhampton Beach(Required Environmental Monitoring)	400,000
Continue Reformulation Study	1,700,000
Total	\$ 2,500,000

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 Reformulation project, which includes the value of lands, easements, and rights-of-way.

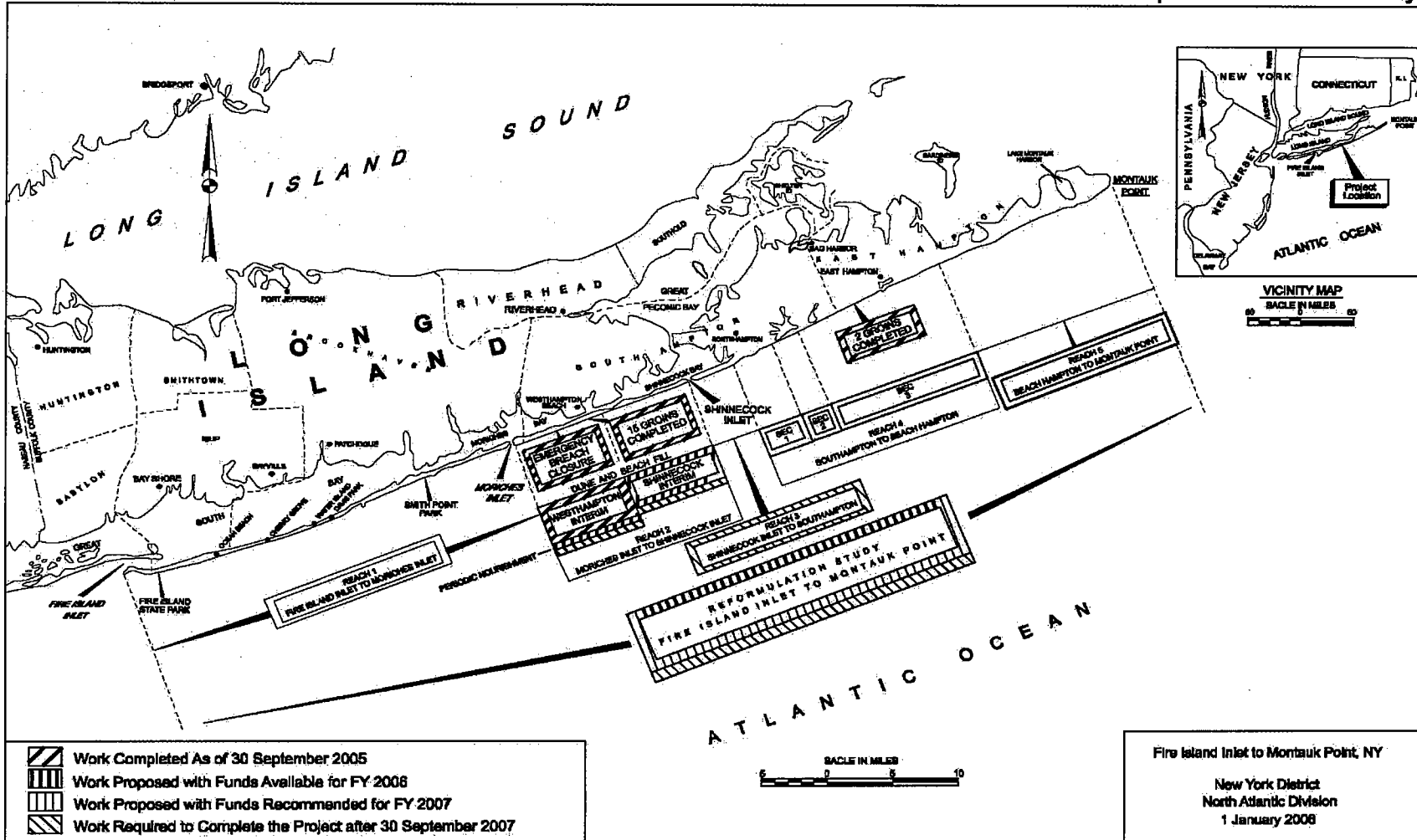
Requirements of Local Cooperation:	Payments During Construction and Reimbursements	Annual Operation Maintenance and Replacement Costs
Provide all lands, easements, and rights-of-way, and relocations.	\$ 12,950,000	
Pay 30 percent of the first costs for the Westhampton Interim project and 35 percent of 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 35 percent of the periodic nourishment cost	214,600,000	
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 2006).

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.

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-Southhampton to Beach Hampton, initiation of construction of Reach 1-Fire Island Inlet to Moriches Inlet, Reach 3-Shinnecock to Southhampton, 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 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 December 1992, two breaches occurred in the barrier island near Westhampton Beach, which were subsequently closed. An interim plan for the severely eroded Westhampton Beach area was prepared in June 1994, which provides for a lower level of 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 USEPA and DOI agreed in concept to the interim plan, provided that a full environmental assessment and/or environmental impact study was completed, and the reformulation of the overall project was reinstated. The estimated cost of the reformulation effort is \$24 million. 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. An interim plan for 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. The cost of these interim studies is \$4 million. 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. In 1984, a lawsuit was brought against Suffolk County, the State of New York and the United States of America, which claimed that the groinfield constructed in the early 1960's caused erosion and damage to downdrift properties. In October 1994, the Village of West Hampton Dunes intervened and a settlement agreement was reached between the plaintiffs and the county, state and Federal governments to provide for storm damage protection and the agreed upon monitoring as described in the Corps 1995 Decision Document, and include periodic nourishment for a period of 30 years



APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: Molly Ann's Brook at Haledon, Prospect Park and Paterson, New Jersey (continuing)

LOCATION: The project area, which is approximately 12 miles northwest of New York City, is located in Haledon, Prospect Park and Paterson, New Jersey, along Molly Ann's Brook from the mouth below Totowa Avenue in Paterson upstream to Church Street in Haledon.

DESCRIPTION: The recommended plan is a modified channel with a total length of 2.5 miles. The channel will include both trapezoidal channel sections and walled sections. Five bridges will be replaced and one building will be removed. All work is programmed.

AUTHORIZATION: Water Resources Development Act of 1976, the Intermodal surface Transportation Act of 1991, and section 301(a)(8) of the Water Resources Development Act of 1986, and Water Resources Development Act of 1996.

REMAINING BENEFIT-REMAINING COST RATIO: 3.7 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 1.13 to 1 at 7 percent.

INITIAL BENEFIT-COST RATIO: 1.16 to 1 at 8 3/4 percent (FY 1993).

BASIS OF BENEFIT-COST RATIO: Benefits are from the Limited Reevaluation Report dated March 1993 at October 1992 price levels.

SUMMARIZED FINANCIAL DATA:		STATUS:	PERCENT	PHYSICAL
		(1 Jan 2006)	COMPLETE	COMPLETION
				SCHEDULE
Estimated Federal Cost	25,960,000	Channel	85	Jun 2007
		Bridges	85	Jun 2007
Estimated Non-Federal Cost	17,440,000	Entire Project	85	Jun 2007
Cash Contributions	2,120,000			
Other Costs	15,320,000			
Total Estimated Project Cost	43,400,000			

PHYSICAL DATA:
Channel: Length of 2.5 miles combining trapezoidal channel sections and walled sections
Bridges: Replacement of five bridges and removal of one building.

Division: North Atlantic

District: Philadelphia

Molly Ann's Brook, Haledon, Prospect Park and Paterson, NJ

SUMMARIZED FINANCIAL DATA: (Cont)

		ACCUM. PCT. OF EST. FED COST
Allocations to 30 September 2003	21,810,000	
Allocations FY 2004	-220,000	
Allocations FY2005	0	
Conference Allowance for FY 2006	3,000,000	
Allocation for FY 2006	3,770,000 ^{1/}	
Allocations through FY 2006	25,360,000	97
Allocation Requested for FY 2007	600,000	100
Programmed Balance to Complete after FY 2007	0	
Unprogrammed Balance to Complete after FY 2007	0	

^{1/} Reflects \$30,000 reduction due to rescission and reprogramming of \$800,000 into the project

JUSTIFICATION: Major flooding in recent years has adversely affected about 520 residential, commercial and industrial establishments in the 100-year floodplain. The storms of 1968 and 1977 caused estimated damages of \$2,100,000 and \$12,300,000 respectively, at 1991 price level. The average annual benefits are \$4,078,000 (October 2005PL) and at an average annual cost of \$3,488,000 (2005PL)

FISCAL YEAR 2006: Funds are being used to continue initial construction including construction of unfinished portions of the project and clean-up of storm damages from Hurricanes Floyd and Dennis. Additionally, O&M of the previously constructed sections must be performed.

FISCAL YEAR 2007: The requested amount will be applied as follows:

Complete Initial Construction	\$ 550,000
Construction Management	50,000
TOTAL	\$ 600,000

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 Reimbursement	Annual Operation, Maintenance, and Replacement Costs
Provide lands, easements, rights-of-way.	\$ 7,260,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	8,060,000	
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.	2,120,000	\$ 50,000
Total Non-Federal Cost	\$17,440,000	\$ 50,000

STATUS OF LOCAL COOPERATION: The Project Cooperation Agreement (PCA) was executed on 16 December 1993. The State of New Jersey Department of Environmental Protection (NJDEP), the non-Federal sponsor, is providing their support through the Intermodal Surface Transportation Efficiency Act of 1991 and funds appropriated in their FY 1994 State Capital Budget. They have completed the detailed design of bridges to be modified as part of the project and are in the process of acquiring the necessary lands, easements, and rights-of-way and construction of the project.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$26,160,000 is a increase of \$5,560,000 over the last estimate (\$20,600,000) presented to Congress (FY 1997). This change includes the following items:

Item	Amount
Other Estimating Adjustments	\$5,560,000
Total	\$5,560,000

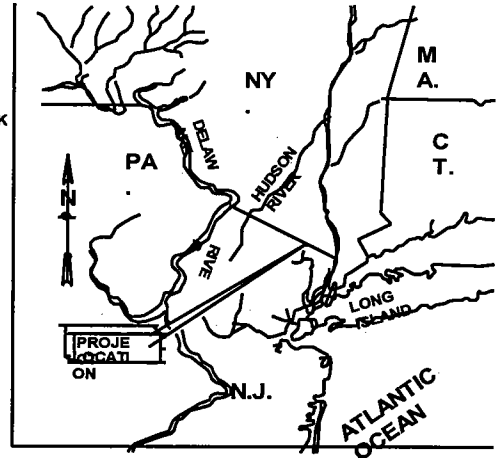
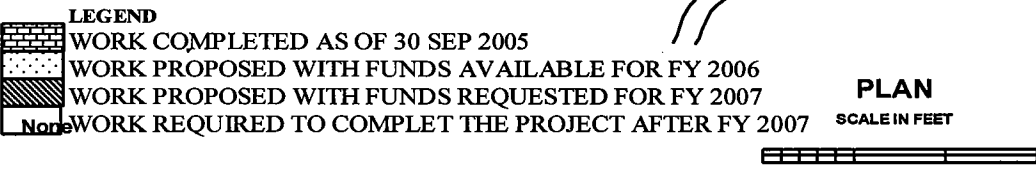
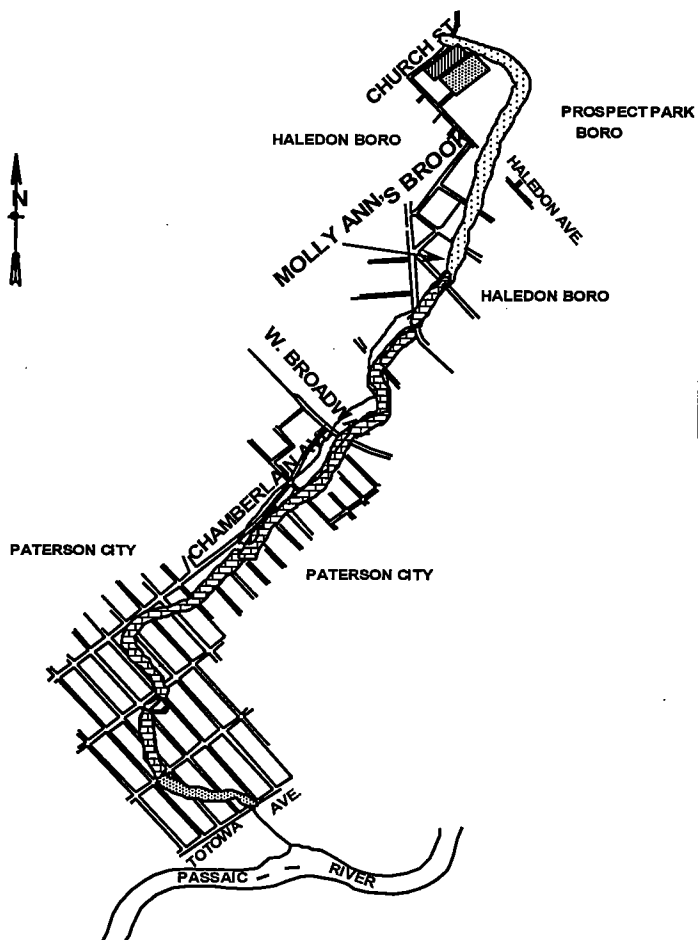
STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Record of Decision was signed on 3 November 1988.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1989. Funds to initiate construction were appropriated in FY 1993. Uncompleted portions involve storm damages from Hurricane Floyd and cleanup from Hurricane Dennis.

Division: North Atlantic

District: Philadelphia

Molly Ann's Brook, Haledon, Prospect Park and Paterson, NJ



VICINITY MAP

MOLLY ANN'S BROOK
PASSAIC COUNTY, NEW JERSEY
 1 JANUARY 2006

SCALE AS SHOWN
 U.S. ARMY ENGINEER DISTRICT, PHILA.

APPROPRIATION TITLE: Construction, General – Shoreline Protection

PROJECT: Townsends Inlet to Cape May Inlet, New Jersey (continuing)

LOCATION: The site of the recommended project is located on the Atlantic Coast of New Jersey, approximately 23 miles southwest of Atlantic City. It includes the communities of Avalon, Stone Harbor, and North Wildwood.

DESCRIPTION: The recommended project consists of four reaches for shoreline protection for Avalon, Stone Harbor and North Wildwood, NJ, and an environmental restoration project for Stone Harbor Point. The shoreline protection portion of the project includes: (1) the construction of stone seawalls for the first and second reaches at the inlet frontages at Avalon and North Wildwood with seawalls at top elevations of 14 feet and 13 feet above mean low water respectively, extending for approximately 2,970 linear feet in Avalon and 8,660 linear feet in North Wildwood and would encompass the existing non-Federal bulkheads, rock revetments, and seawalls; and (2) the placement of 4.6 million cubic yards of initial beachfill with 800,000 cubic yards of periodic nourishment every three years for the third and fourth reaches on the oceanfront of Avalon and Stone Harbor (Seven Mile Island). The beach fill segments will provide berm widths of 150 feet at elevation 8.5 feet above mean low water and dunes 7.5 feet above grade at elevation 16 feet above mean low water. The dunes would have a total length of 22,500 feet, a crest width of 25 feet, and would include dune grass plantings and sand fencing. The ecosystem restoration portion of the project includes an oceanfront berm 150 feet wide with a crest width of 25 feet at elevation 8.5 feet above mean low water for the fifth reach at Stone Harbor Point. This berm would extend 1,000 linear feet southwest of the terminal groin in Stone Harbor. The plan also includes the planting of approximately 3 acres of dune grass and 64 acres of bayberry and eastern red cedar. No periodic nourishment would be included with this project feature. Presently, the placement of sand every 3 years is unprogrammed and is not budgetable.

AUTHORIZATION: Water Resource Development Act 1999, Section 101(a)(26).

REMAINING BENEFIT-REMAINING COST RATIO: 3.3 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 (FY 2001)

BASIS OF BENEFIT-COST RATIO: Townsends Inlet to Cape May Inlet feasibility study. Chief's Report dated 28 September 1998

Division: North Atlantic

District: Philadelphia

Townsend Inlet to Cape May Inlet, NJ

SUMMARIZED FINANCIAL DATA

Estimated Federal Cost	\$ 149,800,000
Initial Construction (Programmed)	\$ 49,252,470
Periodic Nourishment (Unprogrammed)	\$100,547,530
Estimated non-Federal Cost	\$ 83,100,000
Initial Construction (Programmed)	\$26,350,000
Cash Contributions	\$24,660,000
Other Costs	\$ 1,690,000
Periodic Nourishment (Unprogrammed)	\$ 56,750,000
Cash Contributions	\$55,750,000
Other Costs	0
Total Estimated Project Cost	\$ 232,900,000
Initial Construction (Programmed)	\$ 75,602,470
Periodic Nourishment (Unprogrammed)	\$157,297,530

STATUS: (1 Jan 2006)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Initial Beachfill	100	Sept 2003
Periodic Nourishment	0	To be Determined
Seawalls	80	Dec 2006
Ecosystem Restoration	0	Sept 2007
Entire Project	45	To be Determined

beachfill,

PHYSICAL DATA: Seven Mile Island, (Avalon and Stone Harbor): 4.3 miles of

berm width of 150-foot and dune height of +16-feet.

Avalon and North Wildwood 2.2 miles of seawall construction.

Stone Harbor Point: Ecosystem restoration of approximately 107 acres of natural barrier island with beach fill and dune construction with periodic nourishment and planting of 67 acres of bayberry and red cedar roosting habitat.

Allocations to 30 September 2003	\$ 17,401,470
Allocations FY 2004	\$ 2,758,000
Allocations FY 2005	\$ 11,793,000
Conference Allowance for FY 2006	\$ 11,600,000
Allocation for FY 2006	\$ 11,484,000 ^{1/}
Allocations through FY 2006	\$ 43,436,470
Allocations Requested for FY 2007	\$ 5,816,000
Programmed Balance to Complete after FY 2007	\$ 0
Unprogrammed Balance to Complete after FY 2007	\$100,547,530

ACCUMULATED
PCT OF EST.
FED COST

28

33

^{1/} Reflects \$116,000 reduction due to rescission

JUSTIFICATION: The area has been subjected to major flooding, erosion and wave attack during storms, causing damage to structures, and, since 1992, was declared a National Disaster Area by the President of the United States on three separate occasions. In recent years, continued erosion has resulted in a reduction of the height and width of the beachfront, which has increased the potential for storm damage. In addition, valuable fish and wildlife habitat along the southern end of Stone Harbor has been lost to erosion.

FISCAL YEAR 2006: Funds are being used to construct the Hereford Seawall and complete the Avalon Seawall.

Division: North Atlantic

District: Philadelphia

Townsend's Inlet to Cape May Inlet, NJ

FISCAL YEAR 2007: The requested amount will be applied as follows:

Complete Initial Construction	\$ 4,814,000
Planning, Engineering & Design	\$ 65,000
Construction Management During Initial Construction	\$ 821,000
Total	\$ 5,700,000

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, and Replacement Costs
Provide lands, easements, and rights of way	\$ 100,000	
Modify or relocate utilities, roads, bridges, Other facilities, where necessary for the construction of the project.	\$ 1,590,000	
Pay 35 percent of the all costs allocated to hurricane and storm damage reduction and ecosystem restoration	\$ 25,647,000	
Pay 35 percent of costs allocated to periodic nourishment/monitoring	\$ 55,763,000 <u>1/</u>	
Bear all costs of operation, maintenance, repair, replacement, and rehabilitation of the completed project.		\$200,000
Total Non-Federal Costs	\$ 83,100,000	\$200,000

1/ Un-inflated amount, because this phase Unprogrammed.

STATUS OF LOCAL COOPERATION: The non-Federal sponsor is the State of New Jersey Department of the Environmental Protection (NJDEP). The Project Cooperation Agreement was executed in March 2002.

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal cost estimate of \$149,800,000 is an increase of \$3,800,000 from the latest estimate (\$146,000,000) presented to Congress (FY 2006). This change includes the following items:

Item	Amount
Price Escalation on Construction Features	\$ 3,800,000

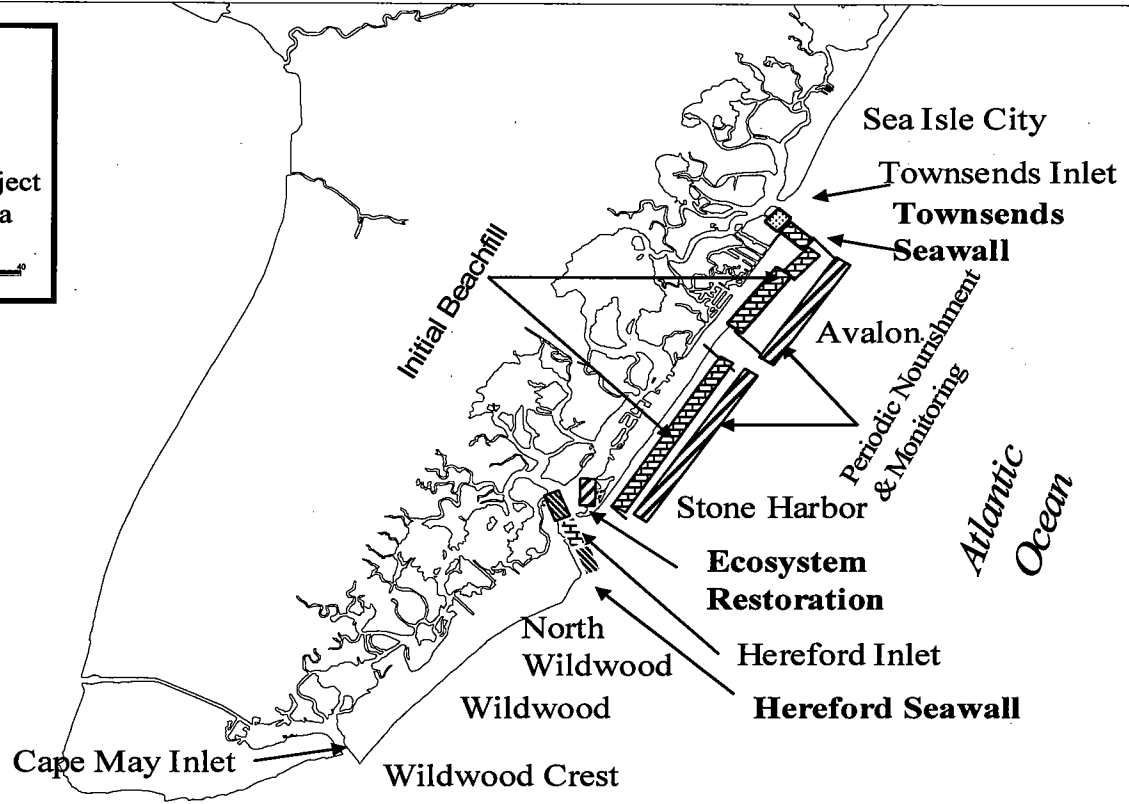
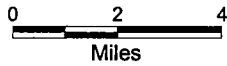
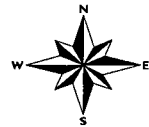
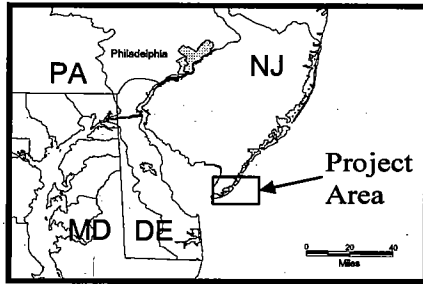
STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Final Environmental Impact Statement was completed in March 1997

Division: North Atlantic

District: Philadelphia

Townsend Inlet to Cape May Inlet, NJ

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1997. Funds to initiate construction were appropriated in FY 2001. 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.



LEGEND

	WORK COMPLETED AS OF 30 SEP 2005
	WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2006
	WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2007
	WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2007

TOWNSEND'S INLET TO CAPE MAY INLET, NJ
1 January 2006
SCALE AS SHOWN
 U.S.ARMY ENGINEER DISTRICT, PHILA., PA

APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: Washington, DC & Vicinity (new)

LOCATION: Washington, DC at the confluence of the Anacostia and Potomac Rivers.

DESCRIPTION: The existing flood protection project for downtown Washington, D.C., was authorized by the Flood Control Act of 1936 and consists of a levee between the Lincoln Memorial and Washington Monument, a raised section of P Street, SW, adjacent to Fort McNair, and three temporary closures. The project provides protection for a significant portion of downtown, extending from Pennsylvania Avenue on the north, through a significant portion of the Mall, and south to Fort McNair. The authorized modifications will eliminate the temporary closures at 23rd Street and Constitution Avenue, NW, and 2nd and P Streets, SW. The temporary closure at 17th Street, NW, has been redesigned to improve its reliability and minimize the time required for construction. The authorized modifications will bring the top of the existing levee along the Reflecting Pool between 23rd and 17th Streets to a uniform elevation and increase the level of freeboard protection provided. Three drainage control structures have also been added to prevent backflow through the storm sewer system. All work is programmed.

AUTHORIZATION: Flood Control Act of 1946 and Water Resources Development Act of 1996. The project was reauthorized in the Water Resources Development Act of 1999.

REMAINING BENEFIT - REMAINING COST RATIO: 8.6 to 1 at 7 percent.

TOTAL BENEFIT - COST RATIO: 4.6 to 1 at 7 percent.

BASIS OF BENEFIT-COST RATIO: Benefits are from the Post Authorization Change Report dated February 1998 at October 1997 price levels. Benefits will be updated once funds are appropriated before project is physically constructed.

SUMMARIZED FINANCIAL DATA		ACCUM. PCT. OF EST. FED COST	STATUS (1 Jan 2006)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	\$7,000,000				
Estimated Non-Federal Cost:	0		Entire Project	0	To be determined
Cash Contributions	\$0				
Other Costs	0				
Total Estimated Project Cost	\$7,000,000				

Division: North Atlantic
 SUMMARIZED FINANCIAL DATA: (continued)

District: Baltimore

Washington, DC & Vicinity

Allocations to 30 September 2003	2,992,000	
Allocation for FY 2004	104,000	
Allocation for FY 2005	1,000	
Conference Allowance for FY 2006	0	
Allocation for FY 2006	0	
Allocations through FY 2006	3,097,000	44
Programmed Balance to Complete after FY 2007	3,583,000	
Unprogrammed Balance to Complete after FY 2007	0	
Allocation Requested for FY 2007	320,000	49

PHYSICAL DATA

23 rd Street, NW	-3 foot earth embankment, 1 drainage control structure
Reflecting Pool Level	Fill at low spots
17 th Street, NW	-3 foot concrete barrier, 8 foot temporary earth embankment, 1 drainage control structure
2 nd & P Streets, SW	-2 foot earth berm, 1 drainage control structure

JUSTIFICATION: This high priority project is needed to reduce the risk of flood damage to the various museums on the National Mall, The Franklin Delano Roosevelt Memorial, and the World War II Memorial. In addition, a number of Federal facilities are being protected such as the Internal Revenue Service, Justice Department, Federal Trade Commission, FBI, and the National Archives. Flooding on the Potomac River at Washington, DC is affected by both tidal flooding from the Chesapeake Bay and the flood flows on the Potomac River upstream from Washington, DC. Flooding in March 1936 led to estimated damages of \$7,993,000 (October 2002 prices) in Washington, DC and the loss of two lives. This damage estimate is based on development existing at the time of the flood. The project, authorized by the Flood Control Act of 1936, primarily consisted of: a wall and levee 2,300 feet long at Potomac Park between the Lincoln Memorial and the Washington Monument with a gap to accommodate an emergency closure structure, and raising a section of P Street, all to protect the downtown Washington area; and a wall and levee 12,900 feet long to protect the Anacostia Naval Air Station and Bolling Air Force Base. The project, which was placed in operation in 1940, was constructed to protect against a flood discharge of 700,000 cubic feet per second on the Potomac River. Subsequent to project completion, settlement of P Street occurred and construction in Potomac Park increased the gap in the protection. Due to the experience of the 1942 flood, the Flood Control Act of 1946 authorized improvements to restore the design level of protection and improve the operation of the project. The total effectiveness of the project depends on implementation of the improvements authorized in 1946. At present, project operation continues to require implementation of emergency measures such that the ability of the project to provide the design level of protection is questionable. The estimated average annual benefits, all flood control, are \$2,100,000 based on the Post Authorization Change Report dated February 1998 at October 1997 price levels.

FISCAL YEAR 2006: Unfunded, no work being done.

FISCAL YEAR 2007: The requested amount will be applied as follows:

Levee construction	230,000
Planning, Engineering & Design	40,000
Construction Management	<u>50,000</u>
Total	\$320,000

NON-FEDERAL COSTS: None.

Division: North Atlantic

District: Baltimore

Washington, DC & Vicinity

STATUS OF LOCAL COOPERATION: The local assurers for the project modification are the National Park Service, Ft. McNair, and the District of Columbia. These agencies will be responsible for providing lands, easements, and rights-of-way and operating and maintaining the project including making emergency closures during flood events. Letters of intent to provide local cooperation have been secured from each agency. A Memorandum of Understanding with the Park Service and Ft. McNair and a Memorandum of Agreement with the District of Columbia are scheduled for execution by January 2007.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$7,000,000 is the same as the latest estimate (\$7,000,000) presented to Congress (FY 2006).

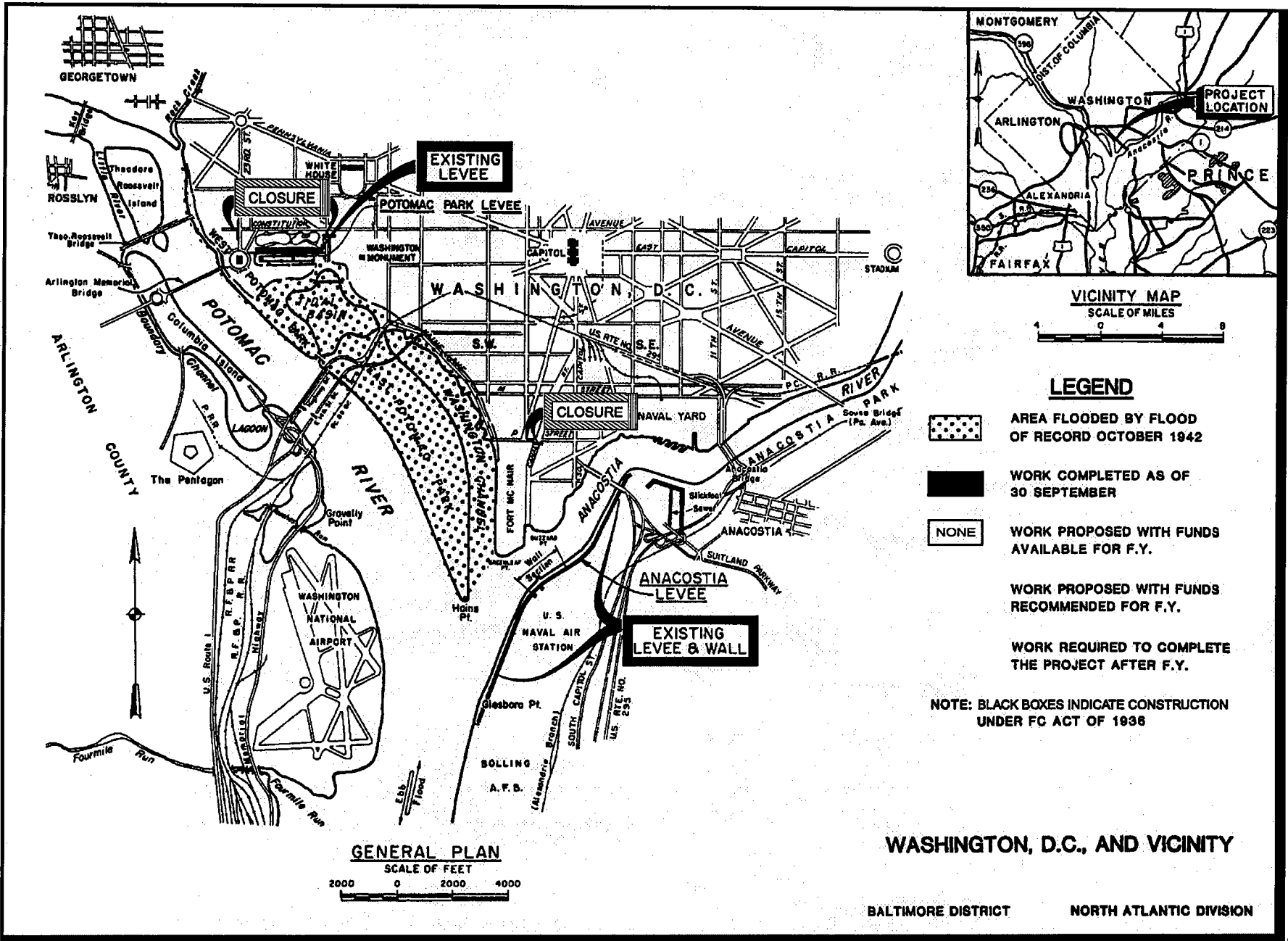
STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An environmental assessment including Finding of No Significant Impact is included in the final General Design Memorandum dated May 1992. The Supplement to the GDM dated June 1996 also included an environmental assessment and Finding of No Significant Impact addressing changes since the GDM.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1986.

Division: North Atlantic

District: Baltimore

Washington, DC & Vicinity



APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: Wyoming Valley, Pennsylvania (Levee Raising) (continuing)

LOCATION: Wyoming Valley is located in northeastern Pennsylvania and extends from Duryea on the Lackawanna River southwestward to Nanticoke on the Susquehanna River. The Wyoming Valley flood control projects are located on the Susquehanna River in Luzerne County and are the four contiguous existing Federal flood control projects at Plymouth, Kingston-Edwardsville, Swoyersville-Forty Fort, and Wilkes-Barre and Hanover Township, which together function as a flood control system within the Valley.

DESCRIPTION: The four existing Federal flood control projects in the Wyoming Valley were designed to protect against a flood equal to the March 1936 event which had a peak flow of 232,000 cubic feet per second. Modifications to the existing project would protect against flood flows of 318,500 cubic feet per second that would be caused by a recurrence of Storm Agnes. The proposed modifications include raising existing levees and floodwalls between 3 and 5 feet, modifying closure structures, relocating utilities, and providing some new floodwalls and levees to maintain the integrity of the flood control system. The proposed project also includes a plan to reduce project-related adverse impacts. All work is programmed.

AUTHORIZATION: Water Resources Development Act of 1986 and the Water Resources Development of 1996.

REMAINING BENEFIT - REMAINING COST RATIO: 10.4 to 1 at 7 percent.

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

INITIAL BENEFIT - COST RATIO: 2.8 to 1 at 8 1/4 percent (FY 1995).

BASIS OF BENEFIT - COST RATIO: Benefits are from the General Reevaluation Report approved September 2005 at April 2005 price levels..

SUMMARIZED FINANCIAL DATA		ACCUM. PCT. OF EST. FED COST	STATUS (1 Jan 2006)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	\$131,000,000				
Estimated Non-Federal Cost:	44,000,000		Levee Raising	100	Jan 2003
Cash Contributions	\$33,538,000		Entire Project	85	To be determined
Other Costs	10,462,000				
Total Estimated Project Cost	\$175,000,000				

Division: North Atlantic

District: Baltimore

Wyoming Valley, PA (Levee Raising)

6 February 2006

SUMMARIZED FINANCIAL DATA:(CONT'D)

Allocations to 30 September 2003	97,654,000	
Allocation for FY 2004	4,192,000	
Allocation for FY 2005	6,030,000	
Conference Allowance for FY 2006	10,496,000	
Allocation for FY 2006	10,391,000	1/
Allocations through FY 2006	118,267,000	90
Programmed Balance to after FY 2007	7,133,000	
Unprogrammed Balance to Complete after FY 2007	0	
Allocation Requested for FY 2007	5,600,000	95

1/ Reflects \$105,000 reduction due to rescission.

PHYSICAL DATA

<u>Swyersville-Forty Fort</u>	
<u>Completed Work</u>	<u>Raising Work</u>
<u>Levees - Earthfill:</u> 16,970 ft.	<u>Levees - Earthfill:</u> 16,500 ft. x 3-5 ft.
<u>Floodwall - Steel sheetpile:</u> 2,490 ft.	<u>Floodwall - Steel sheetpile:</u> 4,000 ft. x 3-5 ft.
<u>Channel - 3,900 ft.</u>	

<u>Kingston-Edwardsville</u>	
<u>Completed Work</u>	<u>Raising Work</u>
<u>Levees - Earthfill:</u> 18,430 ft	<u>Levees - Earthfill:</u> 17,300 ft. x 3-5 ft.
<u>Conduit - 16.5 ft. x 6,660 ft.</u>	<u>Floodwall - Concrete:</u> 500 f. x 3-5 ft. Earth: 500 ft. x 3-5 ft.
<u>Channel - 3,640 ft.</u>	<u>Closures - 3 new</u>
<u>Pump Stations - 3</u>	<u>Pump Station Modifications - 3</u>

Division: North Atlantic

<u>Plymouth</u>	
<u>Completed Work</u>	<u>Raising Work</u>
<u>Levees - Earthfill:</u> 8,700 ft.	<u>Levees - 8,600 ft. x 2-4 ft.</u>
<u>Channel - 2,670 ft.</u>	<u>Floodwall - Concrete:</u> 200 ft. x 2-4 ft.
<u>Pump Stations - 2</u>	<u>Steel sheetpile:</u> 200 ft. x 2-4 ft.
	<u>Earth:</u> 500 ft. x 2-4 ft.
	<u>Pump Station Modification- 2</u>

<u>Wilkes-Barre and Hanover Township</u>	
<u>Completed Work</u>	<u>Raising Work</u>
<u>Levees - Earthfill:</u> 27,860 ft.	<u>Levees - Earthfill:</u> 20,600 ft. x 3-5 ft.
<u>Floodwall - Concrete:</u> 160 ft.	<u>Floodwall - Concrete:</u> 500 ft. x 3-5 ft. Sheetpile 4,300 ft. x 3-5 ft. Earth: 600 ft. x 3-5 ft.
<u>Pump Stations - 5 stormwater 8 sanitary</u>	<u>Closures - 3 new & 1 modified</u>
<u>Channel - 1,000 ft.</u>	<u>Pump Station Modification - 13</u> Wyoming Valley, PA (Levee Raising)

District: Baltimore

JUSTIFICATION: The four existing local protection projects which comprise the Wyoming Valley system were constructed between 1935 and 1976 and provide protection for an area of 5,160 acres and a population of 225,000. Over the past 200 years at least 32 floods have been recorded which exceeded a stage of 25 feet at Wilkes-Barre compared to the flood stage of 22 feet. The discharge of 345,000 cubic feet per second during June 1972 (Storm Agnes) without the now completed Cowanesque and Tioga-Hammond Lakes projects in operation overtopped the protection and resulted in the greatest flood of record with damages of \$730,000,000. A recurrence of Storm Agnes would result in damages to about 25,000 structures with an estimated value of about \$4 billion (October 1997 price level). In January 1996, a combination of rainfall and snowmelt resulted in a flood stage of about 34 feet at Wilkes-Barre, PA. Although the existing system prevented flood damages of nearly \$500 million, residual damages were estimated at about \$6 million in the Wyoming Valley area. The average annual benefits amount to \$27,143,000 essentially all for flood control, based on the final Phase II General Design Memorandum approved February 1996 at January 1993 price levels.

FISCAL YEAR 2006: FY 2006 funds are being used for the Wilkes Barre Phase 2c contract, which includes the Riverfront Development, the evaluation of possible modifications of Toby Creek Impounding Basin, and implementation of the mitigation plan.

FISCAL YEAR 2007: The requested amount will be applied as follows:

Wilkes Barre Phase 2C contract	4,500,000
Non-Structural Measures	700,000
Planning, Engineering and Design	100,000
Construction Management	<u>300,000</u>
Total	\$ 5,600,000

Division: North Atlantic

District: Baltimore

Wyoming Valley, PA (Levee Raising)

6 February 2006

218

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
Provide lands, easements, and rights of way.	4,272,000	
Modify or relocate, utilities, roads, bridges (except railroad bridges) and other facilities where necessary in the construction of the project.	6,190,000	
Pay 18 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 and replacement of flood control facilities.	31,735,000	175,000
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.	1,803,000	39,000
Total Non-Federal Costs	\$44,000,000	\$214,000

STATUS OF LOCAL COOPERATION: The non-Federal sponsor is the Luzerne County Flood Protection Authority. The Pennsylvania Department of Environmental Protection has committed to provide 45 percent of the non-Federal share of project costs. Letters of intent to provide the required local cooperation requirements were furnished by Luzerne County (19 January 1995) and the Commonwealth of Pennsylvania (30 December 1994). A Project Cooperation Agreement was executed in October 1996. To date, the Authority has fully complied with the local requirements on the project.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$131,000,000 is the same as the latest estimate (\$131,000,000) presented to Congress (FY 2006).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: A Supplemental Environmental Impact Statement is included in the final General Reevaluation Report approved September 2005. The Record of Decision was signed 15 November 2005.

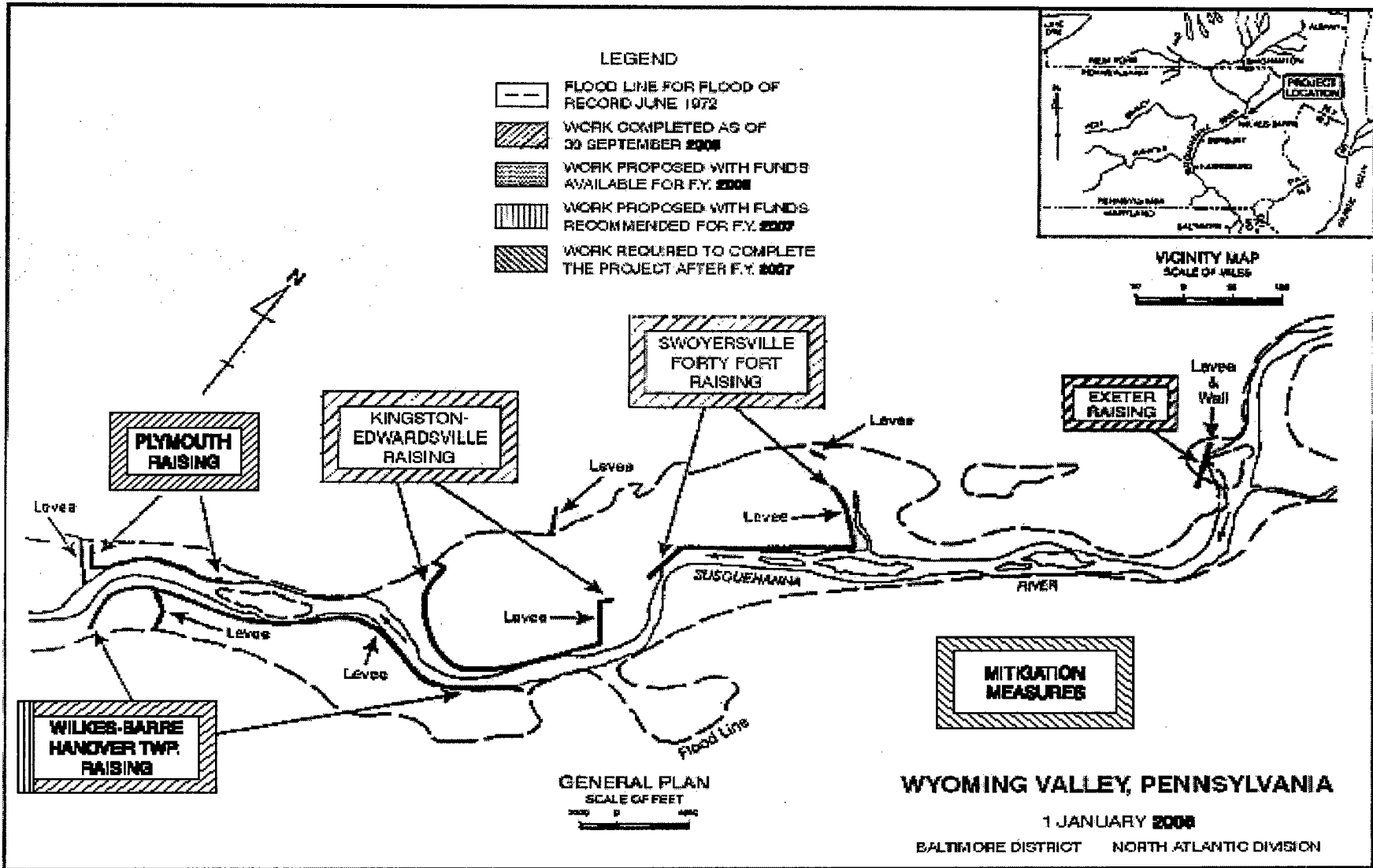
OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1984, and funds to initiate construction were appropriated in FY 1995.

Division: North Atlantic

District: Baltimore

Wyoming Valley, PA (Levee Raising)

6 February 2006



FLOOD AND COASTAL STORM DAMAGE REDUCTION

CONSTRUCTION

NORTHWESTERN DIVISION

FLOOD DAMAGE REDUCTION, Fiscal Year 2007

NORTHWESTERN DIVISION

APPROPRIATION TITLE: Construction, General - Flood Control, Local Protection

PROJECT: Antelope Creek, Lincoln, Nebraska

LOCATION: Antelope Creek is a right bank tributary of Salt Creek and is located in the city of Lincoln, which is in Lancaster County, Nebraska.

DESCRIPTION: The flood protection project consists of channel improvements upstream and downstream of an existing 4,060 foot long concrete conduit, construction of a channel west of the existing conduit (from the conduit entrance to the railroad bridge), railroad bridge modifications and bridge improvements. The project provides a recreation multipurpose trail to be constructed within the flood protection project limits.

AUTHORIZATION: Sec 101 of WRDA 2000.

REMAINING BENEFIT-REMAINING COST RATIO: 4.6 to 1 at 7 percent

TOTAL BENEFIT-COST RATIO: 1.28 to 1 at 7 percent

INITIAL BENEFIT-COST RATIO: 1.35 to 1 at 6.625 percent.

BASIS OF BENEFIT-COST RATIO: Benefits are from the Chief of Engineers Report (December 2000) based on May 2000 price levels.

SUMMARIZED FINANCIAL DATA:

		ACCUM PCT OF EST FED COST	STATUS (1 Jan 2006)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	\$27,808,000				
Estimated Non-Federal Cost	\$27,808,000				
Cash Contribution	\$ 3,419,000		Entire Project	72	To be determined
Other Costs	\$24,389,000				
Total Estimated Project Cost	\$55,616,000				
Allocations through 30 September 2003	4,304,000				
Allocations for FY 2004	899,000				
Allocations for FY 2005	444,000				
Allocations for FY 2006	2,193,000	1/			
Allocations through FY 2006	7,840,000		28		
Allocations Requested for FY 2007	7,500,000		55		
Programmed Balance to Complete after FY 2007	12,468,000				
Unprogrammed Balance to Complete after FY 2007	0				

1/ Reflects \$22,000 rescission.

Division: Northwestern

District: Omaha

Antelope Creek, Lincoln, Nebraska

6 February 2006

PHYSICAL DATA

Relocations:

- 101 utilities,
- 2 streets (bridge replacements)
- 5 streets (new bridges),
- 46 structures (buildings)

Control Structure:

- 1 labyrinth weir structure

Channel:

- Length: 2.1 miles
- Contains 100-year flood plain

Multipurpose Trail (Recreation):

- Length: 2.3 miles
- 3 trail bridges

Bridges:

- 5 new bridges for streets
- 2 existing bridge replacements
- 1 existing street bridge modification
- 1 existing railroad bridge modification

JUSTIFICATION: This flood and storm damage reduction 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 flood control project will reduce flood damages and the threat to human life along Antelope Creek. The project will confine the 100-year flood within the channel banks and conduit by constructing a channel segment west of the existing conduit which will also restore an open water feature on Antelope Creek that was obliterated when the conduit was constructed in 1915. The existing conduit currently has a capacity of less than a 5-year event. The residential, downtown urban and University of Nebraska-Lincoln city campus areas are subject to frequent flooding when the conduit capacity is exceeded above the 5-year event. Significant flooding recently occurred in the Antelope Creek project area in June 2003. Flood damages in excess of \$1.5 million occurred as the result of an approximate 5-year rainfall event. Any funding delays in constructing the remainder of the project will subject a major portion of the Lincoln downtown urban and residential area and the University of Nebraska-Lincoln campus to prolonged exposure to potentially devastating flood damages. The flood control project will provide annual net benefits of \$4,710,000 and total recreation benefits of \$176,000. The project would remove 219 commercial, industrial, and public structures, and 202 residential structures out of the existing regulatory 100-year flood plain.

FISCAL YEAR 2006: The allocation amount of \$2,193,000 will be used as follows:

Real Estate Activities	\$ 100,000
Phase 2 construction	1,600,000
Continue Engineering & Design	200,000
Construction Management Activities	<u>293,000</u>
Total	\$ 2,193,000

FISCAL YEAR 2007: The requested amount of \$7,500,000 will be used as follows:

Real Estate Activities	\$ 200,000
Phase 2 construction	6,800,000
Continue Engineering & Design	200,000
Construction Management Activities	<u>300,000</u>
Total	\$ 7,500,000

NON-FEDERAL TOTAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986 and the project authorization, 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 all lands, easements, right-of-ways, and Dredged material disposal areas.	\$19,770,000	
Relocate utilities, buildings, roads, bridges (except railroad bridges), and other facilities required for construction of the project.	\$10,967,000	
Pay 5 percent of the cost allocated to flood control, and bear all cost of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	\$ 2,710,000	\$28,000
Pay 50 percent of costs allocated to recreation, and bear all cost of operation, maintenance, repair, rehabilitation and replacement of recreation facilities.	\$ 709,000	\$19,000
Total Non-Federal Costs	\$34,156,000	
Federal reimbursement of costs in excess of 50 percent of all flood control project costs.	\$ 6,348,000	
Ultimate Non-Federal cost	\$27,808,000	

Communities must agree to adopt additional flood plain management activities, beyond the requirement to participate in the National Flood Insurance Program, to qualify for Federal participation in a structural flood damage reduction project. These activities include public information and education on flood hazards within the community, flood plain regulation to promote sound use and reduce future flood damages, control of storm water runoff, and preservation of open space.

STATUS OF LOCAL COOPERATION: The City of Lincoln, the University of Nebraska-Lincoln, and the Lower Platte South Natural Resources District are the non-Federal sponsors. The sponsors formed a Joint Antelope Valley Authority (JAVA) that is sponsoring the project. The sponsors strongly support the project and are proceeding with project implementation. The Project Cooperation Agreement (PCA) with JAVA to sponsor the Antelope Creek flood control project was signed on 21 October 2002.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$27,808,000 is an increase of \$180,000 from the latest estimate (\$27,628,000) presented to Congress (FY 2006). This change includes the following items:

Item	Amount
Price Escalation on Construction Features and Changes in Projected Inflation Rates	\$ 450,000
Other Estimating Adjustments	<u>\$ -270,000</u>
Total	\$ 180,000

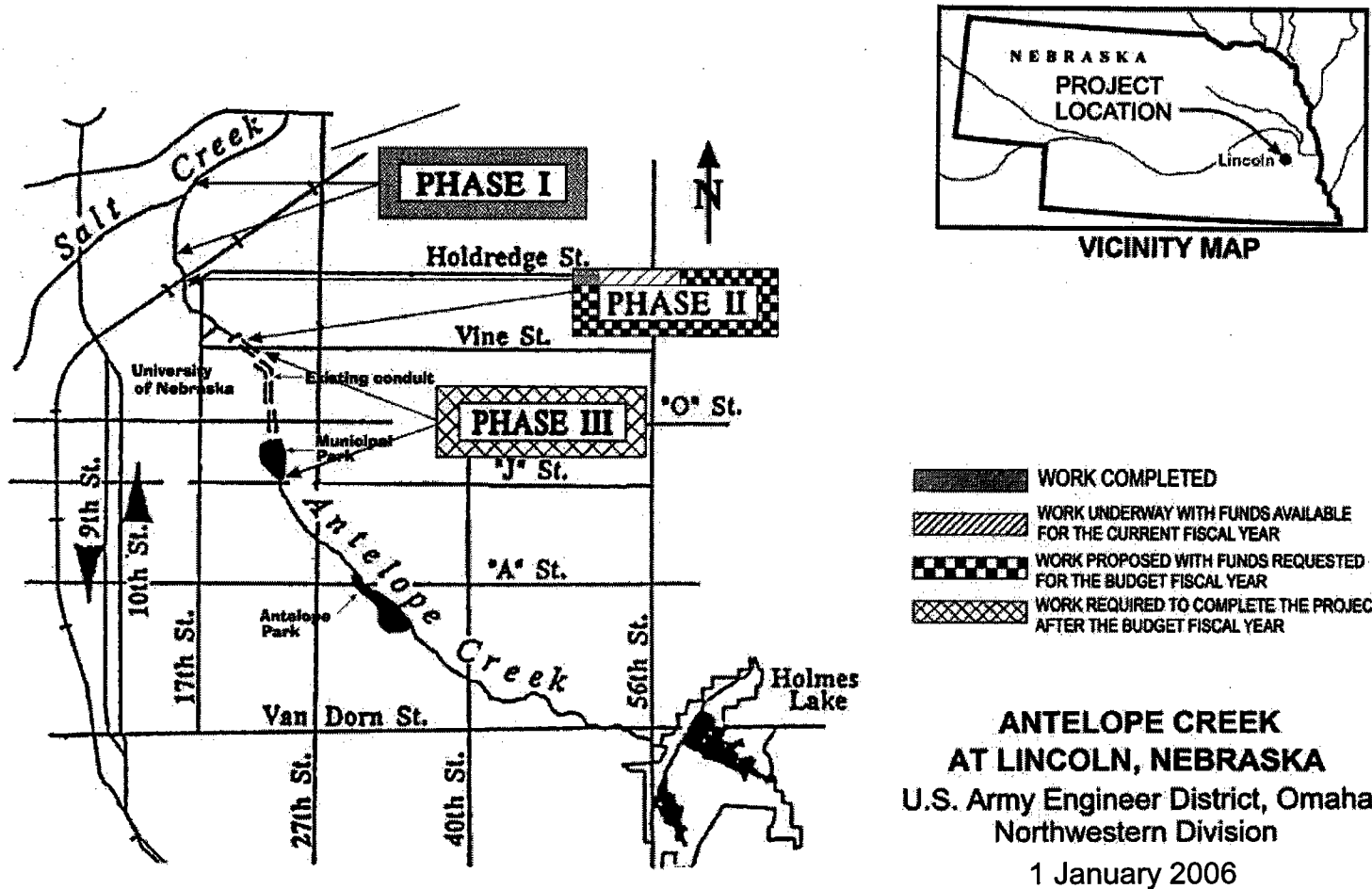
STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An Environment Assessment was prepared and included in the Feasibility Report released to the public for review in June 2000. The Environmental Assessment and the Findings of No Significant Impact was filed with the Environmental Protection Agency on 10 October 2000.

OTHER INFORMATION: Initial funds were appropriated for Pre-construction, engineering and design in Fiscal Year 2000. Congress in the FY02 Energy and Water Appropriations Act added initial construction funding. A construction contract for the downstream ½ mile channel of the 2-mile project was awarded 13 December 2002. The project was not included in the President's Budget request for FY03, FY04, FY05, or FY06 due to budget priorities and constraints.

The Transportation Act passed by Congress in 1998 included \$5.6 million for work associated with a major component (overpass) of the roadway project proposed parallel to the flood control project. The flood control project and the roadway project involve joint right-of-way acquisition and easement actions that benefits both Federal projects.

The sponsor has initiated over \$90 million of financial investments (acquisitions, relocation projects, and construction projects compatible with the flood control project). The sponsors \$90 million (of a planned \$230 million) of financial investments are dependent upon completion of the flood control project. This is a major sponsor investment undertaking compared to the \$5 million that the Federal government has already invested (of a planned \$27.6 million) on the flood control project. Sponsor projects also involve Federal Highway Administration funding and coordination. Any delays will impact the successful completion of projects that coordinate the use of Federal funding from multiple Federal agencies.

ANTELOPE CREEK LINCOLN, NEBRASKA



APPROPRIATION TITLE: Construction, General – Local Protection Projects (Flood Control)

PROJECT: Blue River Basin, Kansas City, Missouri - Continuing

LOCATION: Located along the left bank of the Blue River from U.S. 71 Highway upstream for a distance of about 1-¼ miles in Jackson County Missouri to the Bannister Federal Complex levee.

DESCRIPTION: The project plan consists of a levee and gate system 6,800 feet long connecting the Bannister Road Federal Complex levee at the upstream end to the embankment of Bruce R. Watkins Drive on the downstream.

AUTHORIZATION: Water Resources Development Act of 1996 (PL 104-303), October 12, 1996.

REMAINING BENEFIT – REMAINING COST RATIO: 3.4 to 1 at 7 percent

TOTAL BENEFIT-COST RATIO – 2.0 to 1 at 7 percent

INITIAL BENEFIT-COST RATIO -- 1.7 to 1 at 7 1/8 percent (FY 2001)

BASIS OF BENEFIT-COST RATIO: Limited Reevaluation Report (LRR) approved June 2000.

SUMMARIZED FINANCIAL DATA:	STATUS	PERCENT (1 Jan 06)	PHYSICAL COMPLETE	COMPLETION SCHEDULE
Estimated Federal Cost	\$12,332,000			
Estimated Non-Federal Cost	6,786,000	Entire Project	40	TBD
Cash Contribution	1,000,000			
Other Costs 5,786,000				
Total Estimated Project Cost	19,118,000			
Allocations to 30 September 2003	1,027,000			
Allocation for FY 2004	2,659,000	ACCUM		
Allocation for FY 2005	436,000	PCT. OF EST.		
Conference Allowance for FY 2006	4,000,000	FED COST	PHYSICAL DATA	
Allocation for FY 2006	3,960,000 1/			
Allocations to 30 September 2006	8,082,000	66%	Levee and floodwall 6800 feet long	
Allocation Requested for FY 2007	2,000,000	82%		
Programmed Balance to Complete after FY 2007	2,250,000			

1/ Allocation reflects reduction of \$40,000 for 1% rescission.

JUSTIFICATION: The Blue River drains a 272 square-mile area, much of which is a highly urbanized part of the Kansas City Metropolitan Region. About 56 percent of the basin lies in Johnson County, Kansas, and the remainder is in Cass and Jackson Counties, Missouri. Flooding has been a major problem in the basin for many years. Five serious floods and three less severe floods have occurred in the Dodson Industrial Area since 1928. The flood of record was in 1961 with a peak discharge of 41,000 cubic feet per second. A channel modification project is currently under construction on the downstream 12-mile reach near the Missouri River. However, a serious flood problem remains, particularly along the left bank of the Blue River from U.S. Highway 71 upstream for a distance of about 1-1/4 miles in Jackson County, Missouri, to the Bannister Federal Complex levee. The May 1990 flood caused approximately \$1.6 million in damages to the 1-1/4 mile reach of this project area that is comprised of commercial properties and public structures valued at approximately \$219 million. Estimated average annual benefits are \$2,556,000. Without flood protection, the Dodson Industrial Area will continue to be damaged by periodic flooding, and will be faced with economic decline. Phase 1 has been completed and Phase 2 will be completed in the spring of 2006.

FISCAL YEAR 2006: FY06 funds are being applied as follows:

Item	Amount
Phase 2 Construction	50,000
Phase 3 Contract	3,650,000
Engineering & Design	<u>260,000</u>
Total	3,960,000

FISCAL YEAR 2007: The requested amount will be applied as follows:

Item	Amount
Phase 3 Construction	\$1,570,000
Engineering & Design	220,000
Construction Management	<u>139,000</u>
Total	\$2,000,000

NON-FEDERAL COSTS: Local interests are required to provide a cash contribution equal to 5 percent of total project costs assigned to flood control; furnish without cost to the United States all lands, easements, relocations, and rights-of-way required for construction and subsequent maintenance of the project; maintain and operate the project after completion, at no cost to the United States, in accordance with applicable Federal and State laws and regulations; keep and maintain books, records, documents, and other evidence pertaining to costs and expenses incurred pursuant to the project; participate in and comply with applicable Federal flood plain management and flood insurance programs; and adequately inform all affected interests, at least annually, of the extent of protection provided by the project. The investment is broken down as follows:

	Payments During Construction Costs	Annual Operation, Maintenance and Replacement
Requirements of Local Cooperation:		
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas.	\$3,688,000	\$15,000
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities.	\$2,098,000	\$10,000
Requirements of Local Cooperation (continued):		
Pay 5 percent of the costs allocated to flood control to bring the Total non-federal share of flood control costs to 35 percent.	\$1,000,000	
Total Non-Federal Costs	\$6,786,000	

STATUS OF LOCAL COOPERATION: The City of Kansas City, Missouri is the project sponsor and a statement of financial capability was submitted in a letter dated 20 February 1996. The PCA was signed in September 2001. The local sponsor is an active project participant.

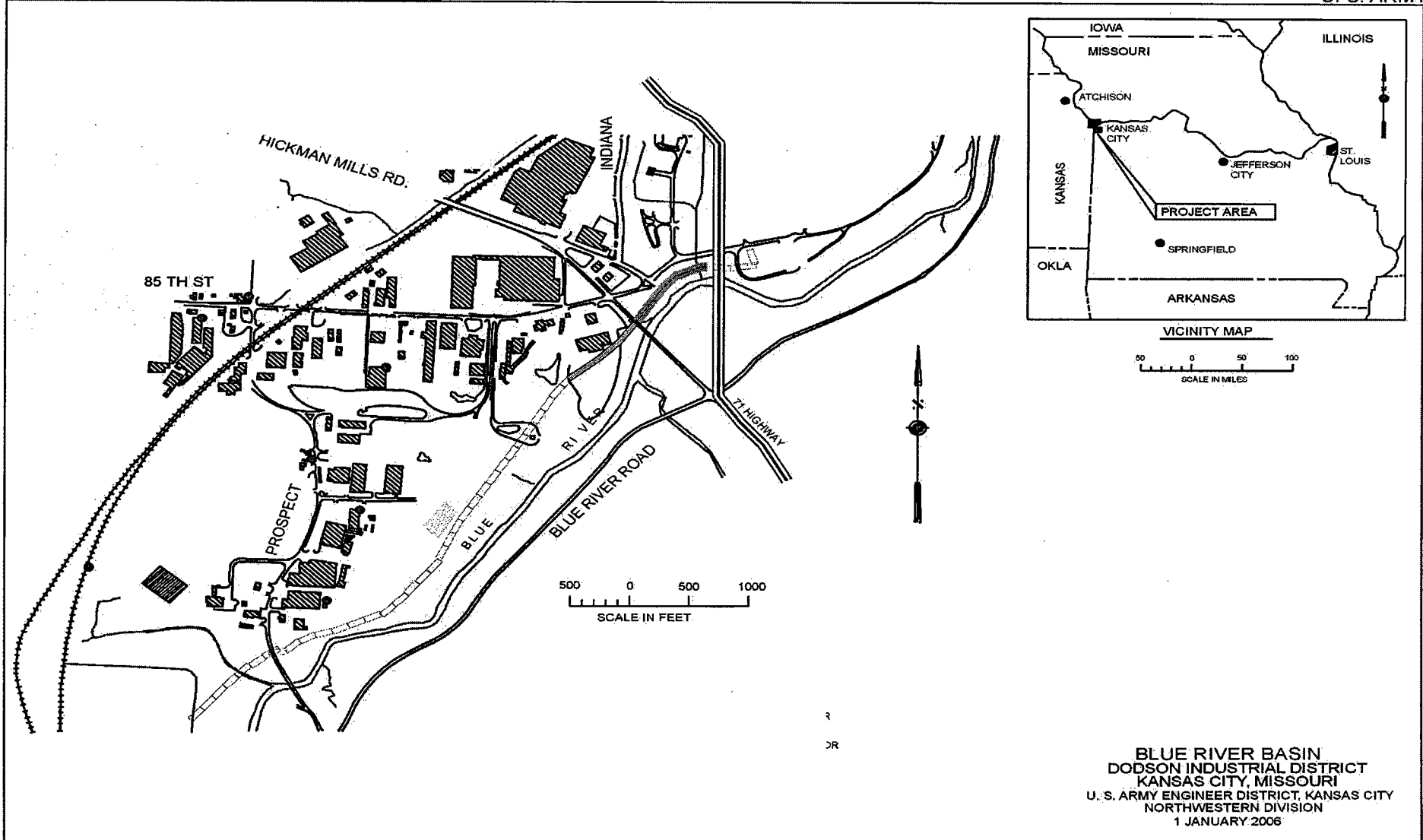
COMPARISON OF FEDERAL COST ESTIMATE: The current Federal cost estimate of \$12,332,000 is the same as last presented to Congress (FY 2006).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An Environmental Assessment, dated February 1996, concluded that no significant impacts would adversely affect the quality of the environment were identified for the plan for flood protection measures for the Dodson Industrial Area. The District Commander signed a Finding of No Significant Impact 15 March 1996.

OTHER INFORMATION: Preconstruction Engineering and Design (PED) was completed in September 2000. First year construction funds were appropriated in FY 2001. The initial construction contract was awarded in September 2003.

CORPS OF ENGINEERS

U. S. ARMY



FLOOD DAMAGE REDUCTION, Fiscal Year 2007

NORTHWESTERN DIVISION

APPROPRIATION TITLE: Construction, General - Local Protection Projects (Flood Control)

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: 4.4 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 3.3 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: Benefits are from the Supplemental Report dated 24 October 1990 to the General Design Memorandum and approved on 14 December 1990 at October 1990 price levels.

SUMMARIZED FINANCIAL DATA:

		STATUS (1 Jan 06)	PERCENT COMPLETE	PHYSICAL COMPLETION
Estimated Federal Cost	\$241,704,000			
Estimated Non-Federal Other Costs	35,594,000	Entire Project	90	TBD
Cash Contribution	\$ 0			
Other Costs	35,594,000			
Total Estimated Project Cost	\$277,298,000			
Allocations to 30 September 2003	\$186,718,000			PHYSICAL DATA
Allocation for FY 2004	5,714,000	ACCUM		Bridge Alterations at Federal Cost:
Allocation for FY 2005	8,570,000	PCT OF EST		Railroad Bridges - Modify - 15 \$23,868,000
Conference Allowance for FY 2006	5,000,000	FED COST		
Allocation for FY 2006	4,950,000 1/			Bridge Alterations at Non-Federal Cost:
Allocations to 30 September 2006	205,952,000	85%		Highway Bridges - Modify - 4 \$7,502,000
Allocation Requested for FY 2007	9,750,000	89%		
Programmed Balance to Complete after FY 2007	26,002,000			Channel Improvement: Length
				Main Stem, Blue River Channel 12.5 miles

1/ Allocation reflects reduction of \$50,000 for 1% rescission.

Division: Northwestern

District: Kansas City

Blue River Channel, Kansas City, Missouri

6 February 2006

231

FLOOD DAMAGE REDUCTION, Fiscal Year 2007

NORTHWESTERN DIVISION

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 2006: FY06 funds are being applied as follows:

Item	Amount
Complete UPRR Bridge Alterations	\$1,702,000
Utility Corridor Construction	2,336,000
Engineering & Design	773,000
Construction Mgmt	<u>139,000</u>
 Total	 4,950,000

FISCAL YEAR 2007: The requested amount of \$9,750,000 will be applied as follows:

Item	Amount
Construct Grade Control Structure	\$ 8,670,000
Engineering and Design	450,000
Construction Management	<u>630,000</u>
 Total	 \$9,750,000

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:

FLOOD DAMAGE REDUCTION, Fiscal Year 2007

NORTHWESTERN DIVISION

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.	\$20,886,000	\$50,000
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities.	\$14,708,000	\$32,000
Total Non-Federal Costs	\$35,594,000	\$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 rights-of-way for Stages 1 and 2 construction that have been completed. Acquisitions for Stage 3 construction are substantially complete. The current non-Federal cost estimate of \$35,594,000 is the same as noted in the project cost sharing agreement.

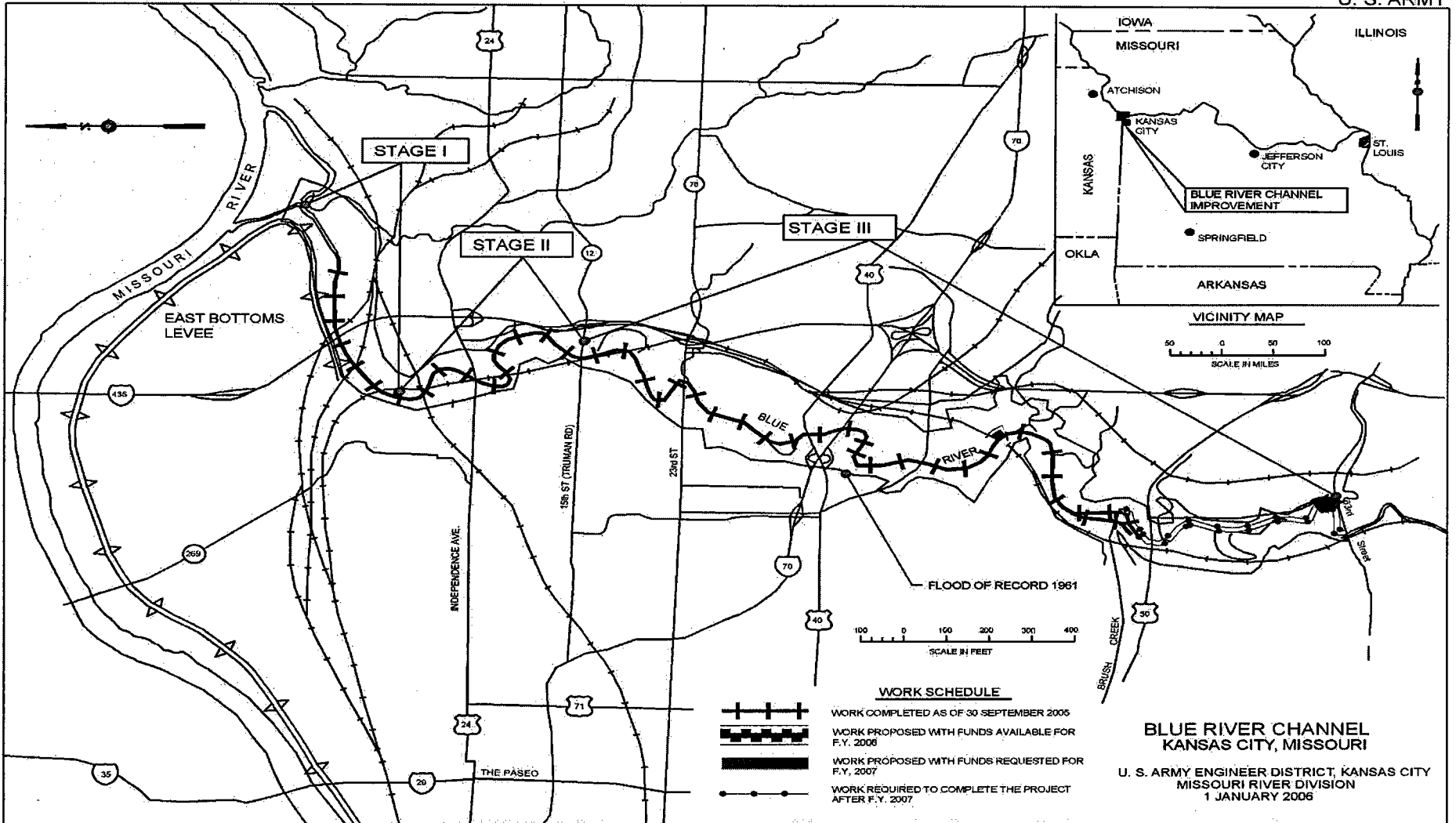
COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$241,704,000, which reflects actual completed construction costs, is an increase of \$4,604,000 over the estimate last presented to Congress (FY 2006).

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.

CORPS OF ENGINEERS

U. S. ARMY



APPROPRIATION TITLE: Construction, General - Reservoirs (Flood Control)

PROJECT: Elk Creek Lake, Oregon (Continuing)

LOCATION: In Jackson County, on Elk Creek, a tributary of Rogue River, at river mile 1.7 about 26.5 miles north of Medford, Oregon.

DESCRIPTION: The Elk Creek Lake Project was authorized as one of three multiple-purpose dams in the Rogue River Basin. The three dams were designed to operate as a system to reduce flooding and to accomplish additional purposes of water supply, irrigation, fish and wildlife enhancement, hydropower, and recreation. Two of the three dams are complete and operating. Authorized features of the partially completed Elk Creek Lake project include a 249-foot high, roller-compacted concrete gravity dam; a gate controlled concrete chute spillway; regulating outlet conduits; a diversion for power penstock; and a multiple use intake tower attached to the upstream face of the dam. Elk Creek Dam was partially completed prior to a court injunction stopping construction. Fish passage through the partially completed facility remains an issue. Based on the selected alternative described in final EIS Supplement Number 2, filed 1 May 1991; the project would be redesigned for interim operation with no conservation pool and with fish passage.

AUTHORIZATION: 1962 Flood Control Act

REMAINING BENEFIT - REMAINING COST RATIO: The remaining benefit-remaining cost ratio is 1.29 to 1 at 7 percent.

TOTAL BENEFIT - COST RATIO: The total benefit-cost ratio is 0.48 to 1 at 7 percent.

INITIAL BENEFIT - COST RATIO: The benefit-cost ratio for the fiscal year for which Congress appropriated initial construction funds (FY 1971) was 1.01 to 1 at a 3 1/4% rate and was based on project's fair share of system benefits.

BASIS OF BENEFIT - COST RATIO: Benefits are from the latest available evaluation reported in June 1983 at 1983 price levels.

SUMMARIZED FINANCIAL DATA:

		STATUS	PERCENT	COMPLETION
		(1 Jan 2006)	COMPLETE	SCHEDULE
Estimated Federal Cost	\$179,400,000 1/			
Programmed Construction	134,154,000			
Unprogrammed Construction	45,246,000	Entire Project	63	To Be Determined
Estimated Non-Federal Cost	\$ 0	PHYSICAL DATA (authorized)		
		Dam: Type - Roller compacted concrete.		
		Height - 249 feet; length - 2,580		
		Concrete Volume - 1,100,000 cu. yds.		

1/ Reflects the cost of the selected alternative described in EIS Supplement Number 2 in 1991. Excludes deferred costs for future potential modification to operate with a conservation pool if the project is completed in the future. This estimate must be significantly updated at that time if the project is completed in the future.

FLOOD DAMAGE REDUCTION, Fiscal Year 2007

NORTHWESTERN DIVISION

SUMMARIZED FINANCIAL DATA (continued)

	ACCUM. PCT. OF EST FED COST	
Total Estimated Programmed Cost	134,154,000	Spillway: Type - Concrete gravity.
Total Estimated Unprogrammed Cost	45,246,000	Gate Ogee Section: Design discharge- 68,400 cfs,
Total Estimated Project Cost	179,400,000	Gates - 3 (33 feet x 34 feet) tainter.
Allocations to 30 September 2003	111,567,200	Lands and Damages: Acres - 3,570
Allocation for FY 2004	326,000	Land Use: Irrigated - 130 acres;
Allocation for FY 2005	254,000	Pasture - 182 acres; Wooded - 3,151 acres (of which 841
Conference Allowance for FY 2006	300,000	acres are Government owned); Lesser Interests- 67 acres;
Allocation for FY 2006	297,000	Building Sites - 40 acres
Allocations through FY 2006	112,444,200	63%
Allocation Requested for FY 2007	1,440,000	63%
Programmed Balance to Complete after FY 2007	20,269,800	Relocations: County Road - 7.9 miles
Unprogrammed Balance to Complete after FY 2007	45,246,000	Power and Telephone lines - 15 miles, Cemetery Reservoir
		Capacity Total storage at elev 1,726 - 101,000 acre feet
		Usable Storage - 95,000 acre feet; Flood Control Storage
		(elev 1726- 1665) - 60,000 acre feet Conservation Storage
		(elev 1665 (1581) - 35,000 acre feet; Inactive Storage (elev
		1581-1500) - 6,000 acre feet.

JUSTIFICATION: Elk Creek Lake could be operated without conservation storage on an interim basis together with Lost Creek and Applegate Lakes as the three-dam Rogue River Basin system to provide flood control. The project would control run-off from about 132-square miles upstream from Elk Creek site. The flood problems occur principally in discontinuous areas in the 50-mile reach of the Rogue River from the junction of Elk Creek downstream to about ten miles past Grants Pass and in scattered areas in the lower 100-mile reach of the Rogue River. The major flood plain comprises some 7,400 acres of hay, alfalfa, pasture orchards (peaches, pears), and hops and affects a population of 14,560. Damages from past floods include agricultural crop losses and land damage due to inundation and erosion; and destruction of industrial, residential, commercial, and recreation developments. A total of 95,000 acre-feet of usable storage would be available at Elk Creek for flood control. The maximum flood that could be completely controlled at the Elk Creek site would have a peak flow of about 19,200 cubic feet per second and a frequency of occurrence of once in about 40 years. During the flood of 1964, the most severe flood since 1861, damages to the area downstream from Elk Creek and Lost Creek Lakes amounted to \$13,161,000 of which about \$2,350,000 would have been prevented by Elk Creek Lake. The peak stage of a flood such as that of 1964 would be reduced about 5.6 feet at Grants Pass by Lost Creek, and 7.4 feet by Lost Creek and Elk Creek Lakes combined. When there is a need for additional conservation storage in the region, engineering and environmental studies could be initiated to determine the feasibility of modifying operation of the project to include conservation storage. Annual benefits creditable to Elk Creek Lake are estimated to be \$2,026,000 based on 1 October 1983 prices, considered as last added increment to the three-dam system and include the following:

Annual Benefits	
Flood Control	\$ 1,883,000
Employment	<u>143,000</u>
Total	\$ 2,026,000

Division: Northwestern

District: Portland

Elk Creek Lake, Oregon

6 February 2006

236

FISCAL YEAR 2006: The allocation amount of \$297,000 will be applied as follows: FY06 funds are being used to operate and maintain the incomplete dam and to operate the temporary fish trap.

FISCAL YEAR 2007: The requested amount of \$1,440,000 will be applied as follows: \$520,000 will be used to continue operation of the existing fish trap and haul facility and conduct basic O&M activity at the incomplete dam structure. \$920,000 will be used for reevaluation of alternatives for fish passage and for planning and design of the selected alternative.

NON-FEDERAL COST: A non-Federal sponsor for this project has not been identified at this time. In the event a sponsor agrees to enter into a Project Cooperation Agreement for municipal and industrial water supply, the sponsor will pay all costs allocated to municipal and industrial water supply and bear all costs of operation, maintenance, and replacement of municipal and industrial water supply facilities; for recreation, the sponsor will pay one-half of the separable costs allocated to recreation and bear all costs of operation, maintenance, and replacement of recreation facilities; for agricultural water supply, the sponsor will pay all costs allocated to agricultural water supply and bear all costs of operation, maintenance, and replacement of agricultural water supply facilities.

STATUS OF LOCAL COOPERATION: Responsibility for repayment of irrigation costs rests with the Department of Interior pursuant to Federal Reclamation law. Responsible officials of four irrigation districts (Sams Valley, Eagle Point, Applegate Valley, and Rogue River Valley) have furnished preliminary assurances that it is the intention of each individual district to enter into a contract with the Secretary of the Interior to provide reimbursement of irrigation cost within each district's ability to repay such costs pursuant to reclamation law. Pursuant to Public Law 91-439, October 7, 1970, the project will not be operated for irrigation purposes until such time as the Secretary of the Interior makes the necessary arrangements with non-Federal interests to recover the costs, in accordance with the Federal Reclamation Law, which are allocated to the irrigation purpose. Assurances for future purchase of municipal and industrial water supply have been obtained from six communities in the valley: Medford, Grants Pass, Shady Cove, Sams Valley, Eagle Point, and Gold Hill. Phoenix, Oregon, a suburb of Medford, is currently purchasing municipal and industrial water supply storage at Lost Creek Lake.

Recreation facilities will not be scheduled until development of cost sharing agreements with local interests for construction and non-Federal operation and maintenance, consistent with projects for which recreation facilities are being constructed under provisions of the Federal Water Project Recreation Act of 1965 (PL 89-72), as amended.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$179,400,000 remains unchanged from the latest estimate submitted to Congress (FY 2005).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Final Statement was filed with CEQ on September 17, 1971. Supplement No.1, addressing water quality effects, was filed with EPA on December 24, 1980, and a Record of Decision was filed with EPA in February 1982. An environmental assessment addressing design changes (such as roller compacted concrete instead of embankment dam) was completed on October 11, 1983. Supplemental Information Reports dated September 23, 1985 and January 14, 1986 were provided to the public; these reports described the findings of the 1983 environmental assessment and other new information that had become available since the 1980 EIS Supplement. Another EIS supplement has been prepared as a result of litigation; this Supplement was completed and filed with the EPA on May 1, 1991. A Record of Decision, selecting the no conservation pool as the interim operating alternative, was signed on January 24, 1992.

OTHER INFORMATION:

Background: Funds to initiate preconstruction planning were appropriated in FY 1965, and for construction in FY 1971. Construction was deferred in FY 1977 due to a lack of state support. Following significant review, evaluation, and a public hearing, the Water Policy Review Board reversed its position and in April 1981 voted to support Elk Creek. Funds were appropriated in FY 1982 and FY 1983 to update and continue project design, plans, and specifications. Funds were appropriated in FY 1985 to resume construction. After initiation of construction, an injunction was placed against completion of the project and additional analysis under National Environmental Policy Act (NEPA) was required in order to remove the injunction. Construction of the project was terminated with the project at 83', one-third its design height. After completion of the final EISS #2, the Department of Justice filed a motion with the Court to remove the injunction. The Ninth Circuit Court of Appeals issued a ruling on April 21, 1995. In a decision, the Court also reversed the District Court decision that EISS #2 met the requirements of the earlier Ninth Circuit opinion and awarded attorneys fees to the plaintiffs. The case was remanded with instructions to prepare a third supplement adequately addressing all issues raised under the NEPA process.

Long Term Management Plan: Due to the Ninth Circuit Court of Appeals decision and the current Federal budgetary climate, the Corps does not plan to perform the environmental studies under the National Environmental Policy Act (NEPA) necessary to remove the Federal court injunction against completion of the project. Therefore, an evaluation of the requirements for long-term management of the project in its uncompleted state was required.

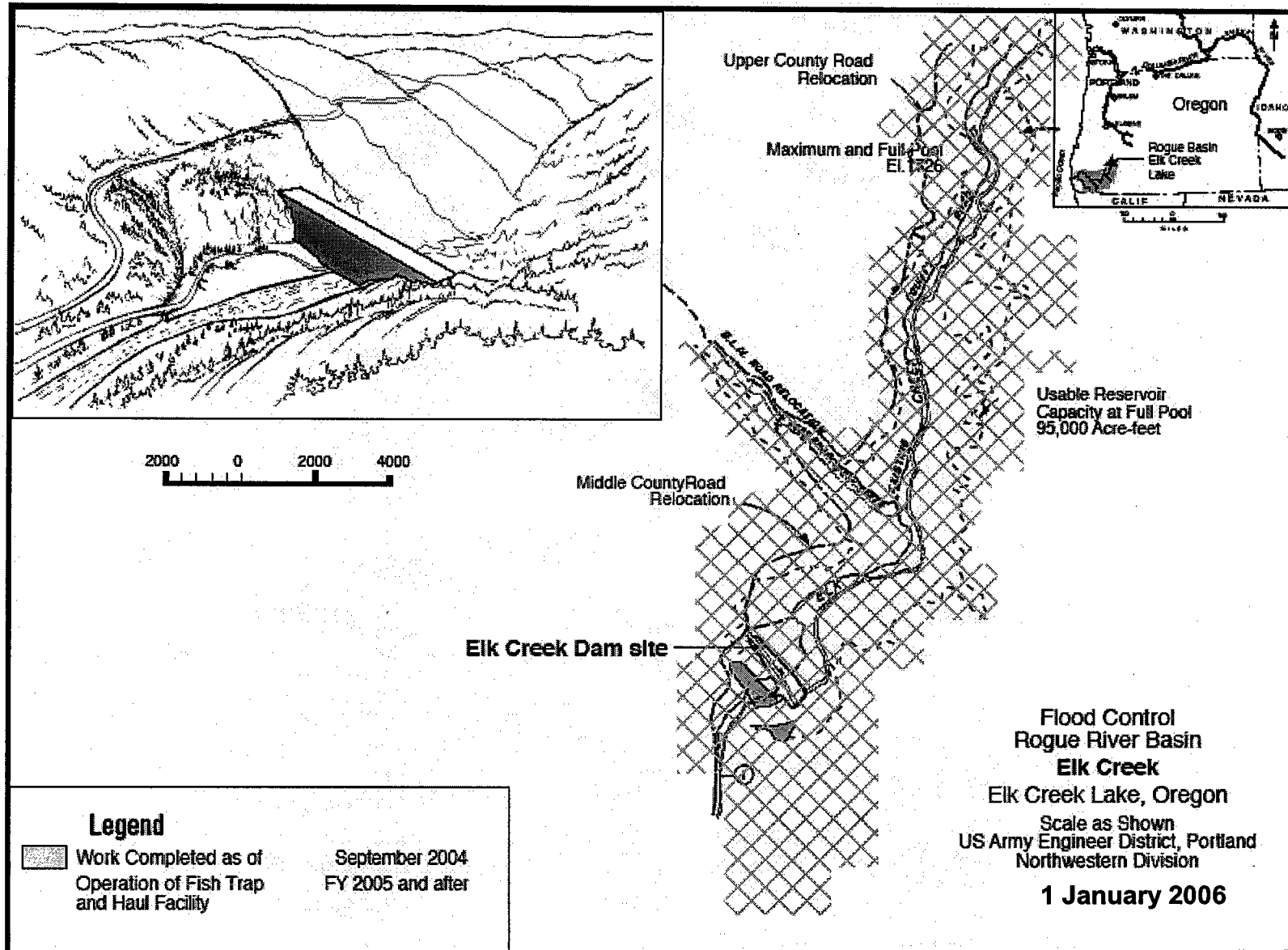
The Division Engineer notified the Congressional Appropriations Committees on 6 November 1995 of the Corps' intention to study options for long-term management of the project in its uncompleted state. We plan to evaluate and implement measures in a two-phase process. The first phase would provide long-term fish passage measures by removing a section of the spillway and left abutment. The second phase will evaluate and implement measures required to resolve land management, potential equipment and gravel disposition, cultural resource requirements and other issues. Temporary fish passage around the project will continue to be provided using Corps funds until a long-term solution is implemented.

Although the Corps has no plans to perform the NEPA studies required to remove the injunction at this time, removal of a section of the spillway and left abutment will not prevent future completion of the project. Removing a section of the dam will provide passive fish passage in accordance with the language in the FY 1997 Energy and Water Development Appropriations Act. In addition, it is the most cost-effective method to provide fish passage over the long term with the project in an uncompleted state even when including the cost to replace the removed section of the dam if it is completed in the future.

Funds were not available to construct the fish passage corridor in 2000, so consultations began with the National Marine Fisheries Service (NMFS) concerning alternatives for long-term fish passage at Elk Creek under the Endangered Species Act. Four potential upstream fish passage alternatives were evaluated in the Corps biological assessment. Based on this analysis, it was determined that passage through the existing diversion tunnel and continued operation of the existing temporary trap and haul facility would result in jeopardy to the continued existence of coho salmon in Elk Creek over a ten to fifty year period. The assessment found that construction of a new trap and haul facility designed to function effectively with the uncompleted project or removal of a section of the dam to provide a fish passage corridor would not impact the continued existence of the species.

NMFS issued a biological opinion on January 2001. The opinion concurred with the Corps' assessment that passage through the existing diversion tunnel and continued operation of the existing temporary trap and haul facility would result in jeopardy. They also concur with our assessment that the fish passage corridor would not result in jeopardy, and would be the best alternative from a biological perspective. Their opinion stated that a new trap and haul facility could result in jeopardy to the continued existence of the species. The opinion stated that there is a chance the impacts of a new trap and haul facility could be reduced to an acceptable level. It stated, however, that there are significant risks associated with the design of a new facility that resulted in their jeopardy finding. Since a new trap and haul facility is more expensive than the fish passage corridor, we have not performed detailed design to determine if these risks could be reduced to an

acceptable level. The opinion recognized the need to operate the existing trap and haul facility in the interim until an acceptable, long-term solution is implemented. In FY 2003, 2004, 2005, and 2006, Congress included language that specifically prohibits use of project funding for the fish passage corridor (notch). Congress has directed that project funds be used to plan and implement long term management measures and to design and construct a permanent trap and haul.



APPROPRIATION TITLE: Construction, General - Local Protection Projects (Flood Control)

PROJECT: Missouri River Levee System, Iowa, Nebraska, Kansas, and Missouri (Active Units) (Continuing)

LOCATION: Along both sides of the Missouri River, Sioux City, Iowa, to the Mouth.

DESCRIPTION: A series of levee units and appurtenant works along both sides of the Missouri River from Sioux City, Iowa, to the Mouth, for protection of agricultural lands and small communities against floods.

AUTHORIZATION: 1941 and 1944 Flood Control Acts

REMAINING BENEFIT - REMAINING COST RATIO: 1.79 to 1 at 7 percent; 21.5 to 1 at 7 percent (Unit L-385).

TOTAL BENEFIT-COST RATIO: Information is not available due to completion of individual units at various times since 1948.

INITIAL BENEFIT-COST RATIO: 1.5 to 1 at 2 1/2 percent (FY 1948)

BASIS OF BENEFIT-COST RATIO: Unit L385 benefit and cost data is at 1 October 2000 values and is based on an updated benefit-cost analysis accomplished in 2000.

SUMMARIZED FINANCIAL DATA

Estimated Federal Cost	\$160,323,000	1/
Estimated Non-Federal Cost	52,503,000	1/ 2/
Cash Contributions	\$22,922,000	
Other Costs	29,581,000	
 Total Estimated Project Cost	 \$212,826,000	 1/

PHYSICAL DATA

LEVEES	
Average Height	14 feet
Length	468 miles
Area Protected	367,500 acres

1/ Entire Project (Completed and Remaining Units)

2/ In addition, numerous flood control works have been constructed over many years by individuals and groups as land along the Missouri River has developed for agricultural use. The total cost of these improvements is unknown.

FLOOD DAMAGE REDUCTION, Fiscal Year 2007

NORTHWESTERN DIVISION

SUMMARIZED FINANCIAL DATA (Continued)

	ACCUM	
Allocations to 30 September 2003	\$127,980,000	PCT OF EST
Allocation for FY 2004	12,088,000	FED COST
Allocation for FY 2005	2,376,000	
Conference Allowance for FY 2006	563,000	FED COST
Allocation for FY 2006	557,000 3/	
Allocations to 30 September 2006	143,001,000	89%
Allocation Requested for FY 2007	2,500,000	91%
Programmed Balance to Complete after FY 2007	14,822,000	

3/ Allocation reflects reduction of \$6,000 for 1% rescission.

STATUS (1 Jan 2006)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Completed Units:		
L624-627, R616, L611-614, R613, L601, L594, R580, L575, R573, R562, L550-561, R548, L536, R520, R512-513, R500, Kimsey-Holly Creek, L497, L488, R482, L476, R460-471, L455, L443-448, R440, L408, L400, R351, L246, & L15	100	Complete
Remaining Units:		
Riverside-Quindaro Bend Levee District (L385)	99	30 Sep 2006
Jefferson City (L142)	20	TBD
Entire Project (Completed and Remaining Units)	71	TBD

JUSTIFICATION: During FY 2001, Federal reservoirs and levees within Missouri River Division boundaries prevented an estimated \$327 million in damages. Since completion, these projects have prevented damages estimated to total \$27.2 billion through FY 2001. Annual benefits are all flood control.

FISCAL YEAR 2006: L-385 - funds will be used to negotiate LERDs credits with the project sponsor, and negotiate final contract modifications and closeout with the contractor.

FISCAL YEAR 2007: L-385 -the requested amount of \$2,500,000 will be applied as follows;

	<u>L-385</u>
Fund Completed Work	\$2,450,000
Construction Management	<u>50,000</u>
Total	\$2,500,000

Division: Northwestern

District: Kansas City

Missouri River Levee System
IA, NE, KS, MO

6 February 2006

NON-FEDERAL COSTS: The total non-Federal project cost is estimated at \$52,503,000. For the completed units, non-Federal sponsors provided lands, easements, rights-of-way and relocations valued at \$10,269,000, and also contributed \$400,000 of interior drainage work. The estimated non-Federal costs for unit L385 is \$34,973,000 and the details of the non-Federal costs are shown below. For the entire project the sponsors are also providing operation, maintenance, and replacements costs estimated at a current annual cost of \$817,000 (1 October 2000).

	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Remaining Requirements of Local Cooperation		
<u>Unit L385</u> - In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986 and in accordance with the Project Cooperation Agreement signed 25 September 1997, the non-Federal sponsor must comply with the requirements listed below:		
Provide lands, easements and rights-of-way	\$6,801,000	
Modify or relocate buildings, utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project	5,514,000	
Contingencies	1,448,000	
Pay 8 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 25 percent of Unit L385, and bear all costs of operation maintenance, and replacement of flood control facilities	4,588,000	\$40,000 (1 October 2000)
Total Non-Federal Required Costs	18,351,000	
In addition voluntary special cost sharing will be provided by the non-Federal interests to pay 100 percent of costs allocated to land development	16,622,000	
Total Non-Federal Costs During Construction (L385)	34,973,000	

The non-Federal sponsor understands that payments are required during project construction.

STATUS OF LOCAL COOPERATION:

Unit L385 - Sponsor of Unit L385 is the Riverside-Quindaro Bend Levee District. The sponsor agreed to assume additional voluntary cost sharing for costs associated with land development in the Quindaro Bend portion of the project to obtain Washington-level project support. Unit L385 was approved for a new construction start in FY 1994. The Limited Reevaluation Report was approved 24 April 1997. The Project Cooperation Agreement was executed 23 September 1997. Construction contract was awarded March 29, 2002. Project will be physically complete in August 2005.

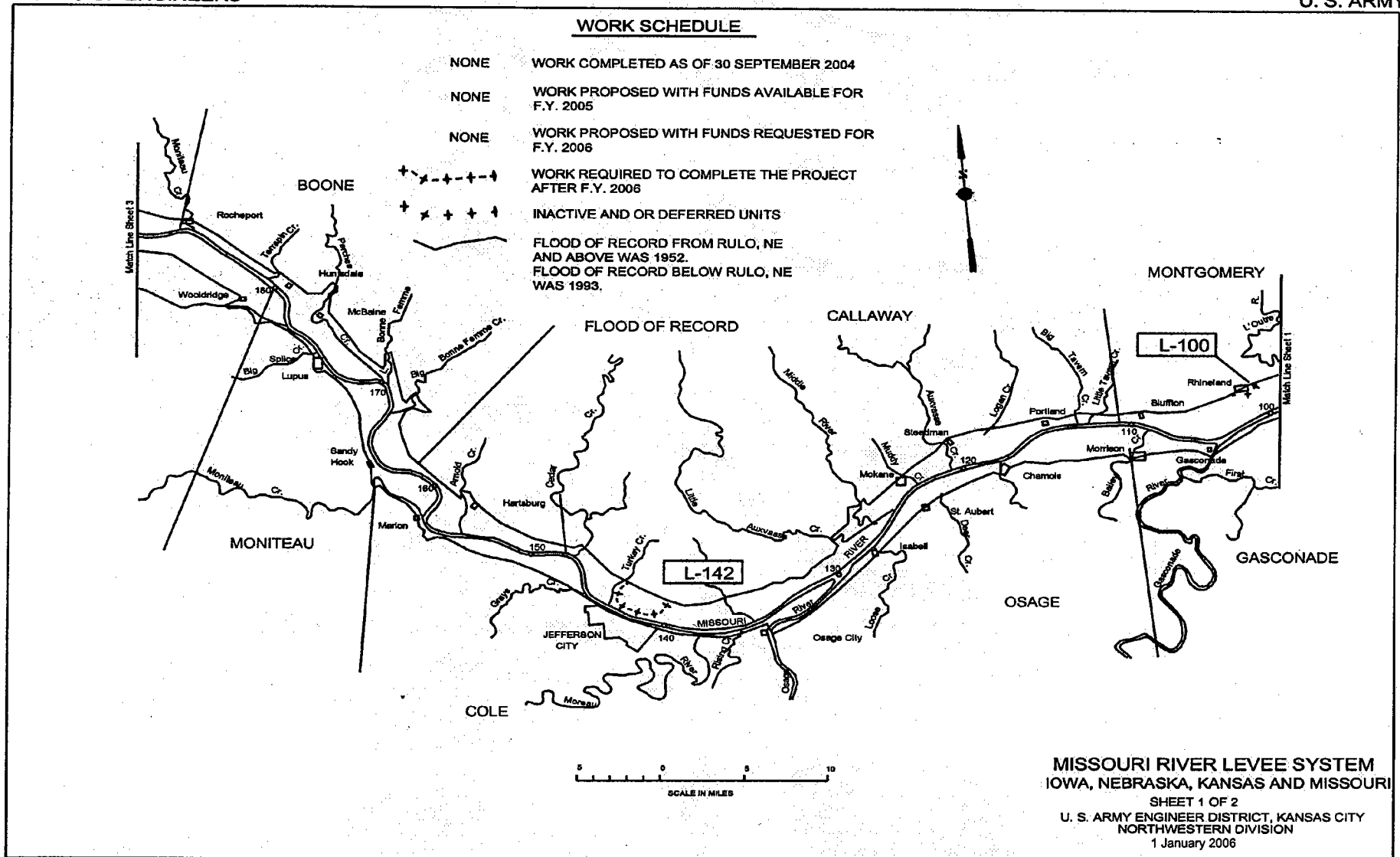
COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$160,323,000 is the same as last presented to Congress (FY 2006).

STATUS OF ENVIRONMENTAL IMPACT STATEMENTS: The final Environmental Impact Statement for Unit L385 was filed with the Environmental Protection Agency on 18 November 1983.

OTHER INFORMATION: Funds to initiate preconstruction planning were appropriated in FY 1946 and to initiate construction in FY 1948.

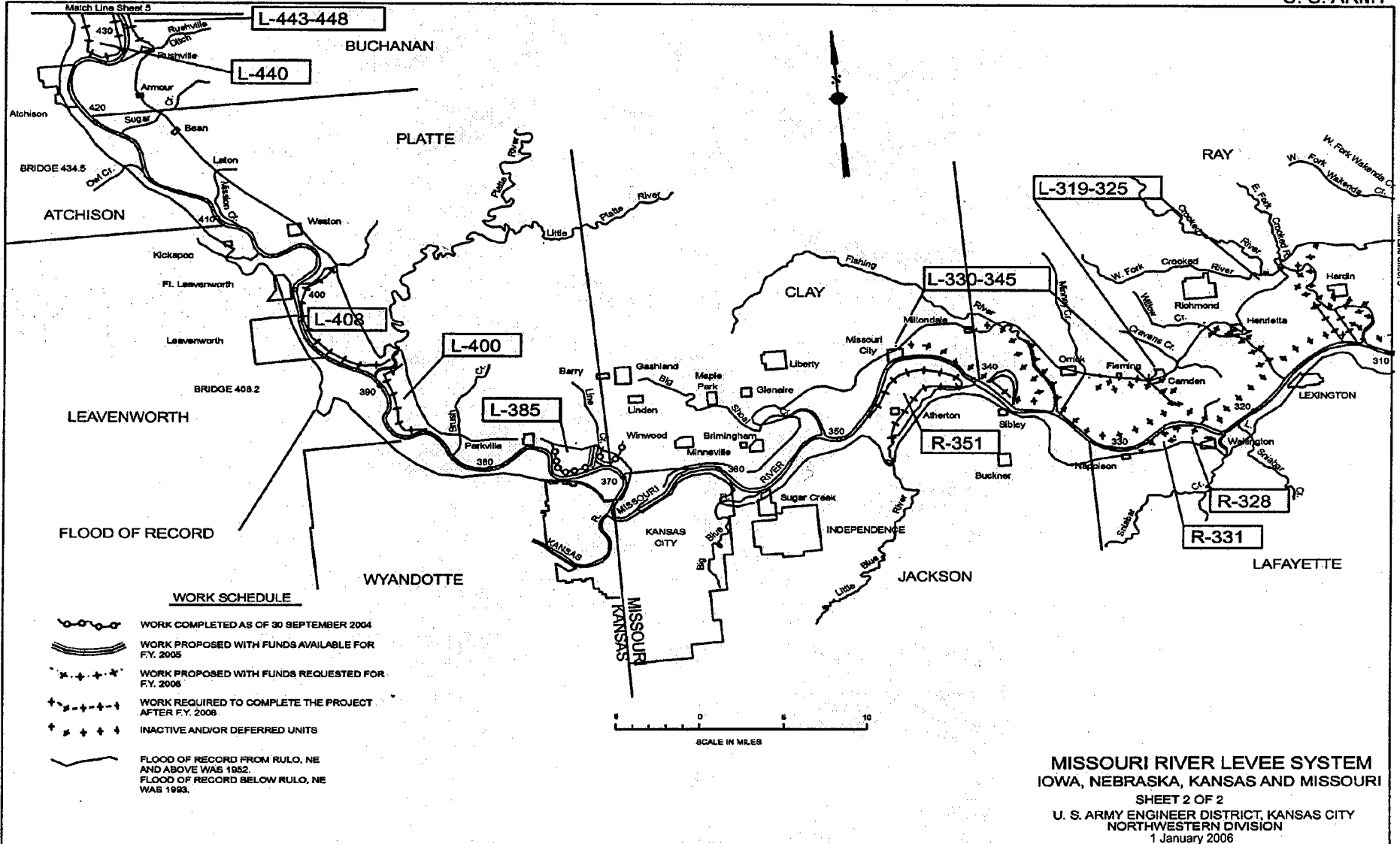
CORPS OF ENGINEERS

U. S. ARMY



CORPS OF ENGINEERS

U. S. ARMY



APPROPRIATION TITLE: Construction, General - Dam Safety Assurance

PROJECT: Mud Mountain Dam, Washington (Dam Safety and 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.

DESCRIPTION: The dam safety project consists of raising and strengthening the dam with a concrete cut-off wall placed at the centerline of the dam, raising the spillway chute wall to contain spillway discharge during the design flood event, reconstructing access roads, constructing a new outlet tower and modifying the two existing flood control discharge tunnels. Work is based on supplemental design memorandums (SDM) #1 and #2. After completion of the two discharge tunnels improvements, inspections identified greater than expected erosion in the concrete invert of the 23-foot tunnel and in the entrance chamber of the outlet tower. Immediate remedial action was completed in 2001. Follow-on inspections revealed additional erosion damage to concrete surfaces on the 9-foot and 23-foot tunnel trash racks, the trash rack walls, the mixing chamber walls, the 9-foot tunnel walls and the 23-foot tunnel exit floor and walls. Salmon are collected and trucked upstream using the existing fish collection facility. Replacement of a fish barrier dam is urgently required. The current facility is in a very deteriorated and unsafe condition. Replacement will allow the Corps to continue meeting it's 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 to dam safety assurance projects.

TOTAL BENEFIT-COST RATIO: THE 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 2006)	PERCENT COMPLETE	COMPLETION SCHEDULE
Estimated Federal Cost	\$ 121,537,000		Entire Project	75	TBD
Estimated Non-Federal Cost	0				
Total Estimated Project Cost	\$ 121,537,000		Dam Safety Fish Facility	86 10	TBD TBD

SUMMARIZED FINANCIAL DATA (Continued)

		Accum. Pct. of Est. Fed Cost
Allocations to 30 September 2003	\$ 83,335,000	
Allocation for FY 2004	1,162,000	
Allocation for FY 2005	2,836,000	
Allocation for FY 2006	4,356,000	75
Allocation Requested for FY 2007	5,470,000	80
Programmed Balance to Complete after FY 2007	24,378,000	
Unprogrammed Balance to Complete after FY 2007	0	

PHYSICAL DATA:

Dam: Type - Rockfill with earth core and concrete cutoff wall
 Height - 425 feet above bedrock
 Crest - 700 feet long
 Width - 1,600 feet at base, 26 feet at crest

Spillway: Type - Uncontrolled
 Previous Design Capacity - 139,000 cfs
 New Constructed Capacity - 220,000 cfs

Fish Trap
 and Haul Facilities
 Improvements

JUSTIFICATION: Mud Mountain Dam (MMD) became operational in 1948, and presently provides flood damage protection for about 850 acres of land along the White River and approximately 6,200 acres along the Puyallup River, with a combined population of more than 80,000 people. These areas are used for agriculture, residential, industrial, commercial, and transportation developments related to the expanding Port of Tacoma area. Major transportation facilities include the Burlington Northern and the Tacoma Beltline Railroads, Interstate Highway 5, and U.S. Highways 99 and 410. The project has prevented more than \$300 million in flood damages.

The original spillway was determined inadequate for the Spillway Design Flood (SDF). With an SDF, the dam would have been overtopped resulting in probable dam failure. Widespread flooding would have resulted in catastrophic damages with a high potential for loss of human life. Potential damages during SDF conditions without dam failure was estimated at \$3.6 billion and with dam failure was estimated at \$5.5 billion based on October 2004 prices and conditions. Should the dam fail, costs to repair the dam structure are estimated at \$200 million and yearly flood losses would continue until the dam was replaced. Record floods tested the modified dam in November 1995 and February 1996 when the reservoir reached a record elevation of 1198 ft. The dam and new outlet tower also withstood a magnitude 6.8 earthquake on 28 Feb 2001.

Upstream migratory fish passage is currently provided at the Buckley fish trap & haul facility which is co-located with a privately owned barrier dam 6 miles downstream of Mud Mountain Dam. The barrier dam is also used to divert water to a recreational lake and a future regional water supply facility and is in need of replacement. Since 2001, funds have been provided to plan and design a replacement facility to meet ESA requirements. Implementation costs of fish passage are estimated at \$17.1 M and are included in Total Estimated Federal cost.

FLOOD DAMAGE REDUCTION, Fiscal Year 2007

NORTHWESTERN DIVISION

FISCAL YEAR 2006: The current year amount will be used as follows:

DAM SAFETY

23 ft Tunnel Exit Armoring	575,000
1245 Road Stabilization	2,225,000
9 ft Tunnel Bleggi Bypass Plug	200,000
9' Tunnel Wall Armoring	240,000
New R-3 Cylinder Installation	60,000
Engineering and Design	222,000
Construction Management	240,000
Total	\$3,762,000

FISH PASSAGE

65% & 95% submittal P&S	\$381,000
Engineering and Design	213,000
Total	\$ 594,000

FISCAL YEAR 2007: The requested amount will be applied as follows:

DAM SAFETY

Construction of the 9' tunnel wall armoring extension	\$3,900,000
Engineering and Design	220,000
Construction Management	280,000
Total	\$4,400,000

FISH PASSAGE

Initiate Fish Passage Real Estate Acquisition	\$770,000
Engineering and Design	300,000
Total	\$ 1,070,000

NON-FEDERAL COSTS: N/A. Required dam safety and fish passage improvements are a Federal cost. If fish passage improvements are completed with local improvements of the diversion structure, costs allocated to the diversion structure will be 100% non-Federal.

STATUS OF LOCAL COOPERATION: N/A.

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal cost estimate of \$121,537,000 is unchanged from the last estimate presented to the Congress in FY 2006.

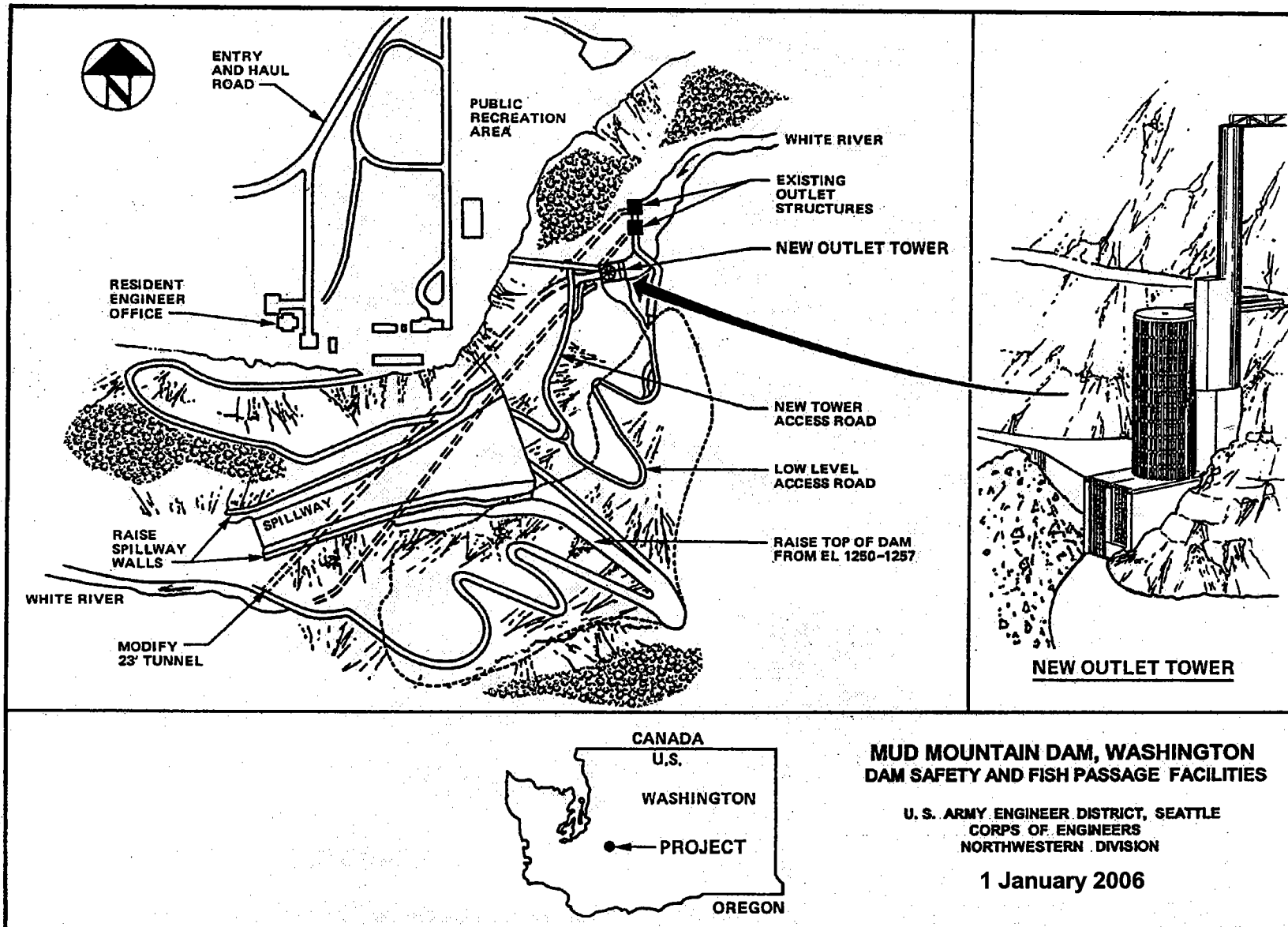
STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An Environmental Assessment for the Dam Safety Assurance Program was completed in June 1986 with an additional Environmental assessment and Finding of No Significant Impact completed in June 1999. An Environmental Assessment and draft Finding of No Significant Impact for the replacement of the barrier dam was completed in March 2005. Final NEPA coordination is on-going. 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. A Biological Opinion for the operating project and replacement of the barrier dam is pending.

OTHER INFORMATION: The Dam Safety Assurance project began in 1986 and the new outlet tower became operational in 1995.

Congress added \$500,000 to the project 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. Funding for FY 2006 directed use of \$600,000 for continued design of the fish passage facility with specific language.

FY 2006 funds are being used to continue dam safety corrections and prepare engineering and design documentation for the fish passage facility.

FY 2007 funds will be used to continue dam safety corrections and initiate construction of the fish passage facility with acquisition of required real estate.



FLOOD DAMAGE REDUCTION, Fiscal Year 2007

NORTHWESTERN DIVISION

APPROPRIATION TITLE: Construction, General - Flood Control, Local Protection

PROJECT: Perry Creek, Iowa (Continuing)

LOCATION: The Perry Creek basin is located in Woodbury and Plymouth Counties in northwestern Iowa. The downstream 5 miles of the basin lies within the corporate limits of Sioux City, Iowa, and drains the central portion of the city.

DESCRIPTION: The project consists of 14,800 linear feet of grass and rock lined channel, 1,500 linear feet of new conduit, modification of 710 linear feet of existing conduit, a concrete stilling basin and a basin-wide flood warning system.

AUTHORIZATION: Water Resources Development Act of 1986, Section 401a, modified by the Energy and Water Development Appropriations Act, 2004.

REMAINING BENEFIT-REMAINING COST RATIO: 4.1 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 1.28 to 1 at 7 percent.

INITIAL BENEFIT-COST RATIO: 1.09 to 1 at 8 1/4 percent (FY 1994).

BASIS OF BENEFIT-COST RATIO: Benefits are from the Post Authorization Change Report dated September 2003, at October 2003 price levels.

SUMMARIZED FINANCIAL DATA:

		ACCUM PCT OF EST FED COST	STATUS (1 JAN 2006)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	\$ 58,036,000				
Estimated Non-Federal Cost	37,307,000				
Cash Contribution	\$ 1,279,000		Entire Project	87	2007
Other Costs	\$36,028,000				
Total Estimated Project Cost	\$ 95,343,000				
Allocations through 30 September 2003	35,785,000				
Allocations for FY 2004	1,879,000				
Allocations for FY 2005	8,972,000				
Allocations for FY 2006	9,900,000	1/			
Allocations through FY 2006	56,536,000		97		
Allocation Requested for FY 2007	1,500,000		100		
Programmed Balance to Complete after FY 2007	0				
Unprogrammed Balance to Complete after FY 2007	0				

1/ Reflects \$100,000 rescission in accordance with the Energy and Water Development Appropriations Act, 2006.

FLOOD DAMAGE REDUCTION, Fiscal Year 2007

NORTHWESTERN DIVISION

PHYSICAL DATA

Relocations - Roads, Utilities, Structures and Bridges	13 roadways 1 railroad
Replacements:	7 roadways 1 railroad
New:	2 roadways
Not Replaced:	4 roadways

Channels:	2.8 miles
Conduit:	2,210 linear feet
Stilling Basin:	132 linear feet, concrete
Recreation Trail	22,500 linear feet, asphalt
Improvements	135 Residences 51 Commercial Properties

JUSTIFICATION: The project will provide urgently needed 100-year flood protection to the metropolitan and downtown areas of Sioux City, Iowa. The flood problem is severe under the present stage of urban development. Between 1892 and 1997, 26 floods have occurred on Perry Creek with very little warning time. Ten of these floods were considered to be major. The floods of 18-19 May 1990 and 22-23 May 1990 produced damages estimated between \$9,000,000 and \$11,000,000. Average annual flood damages are estimated at \$7,438,000, and the project will reduce the flood damage potential by approximately 90 percent. The estimated average annual benefits are as follows:

Annual Benefits	Amount
Flood Control	\$ 6,694,300
Recreation	316,600
Conduit Cost Savings	526,700
Advance Replacement of Bridges	77,200
Flood Insurance Savings	<u>156,000</u>
Total	\$7,770,800

FISCAL YEAR 2006: The allocation amount of \$9,900,000 will be applied as follows:

Item	Amount
Continue Phase IV Conduit and Channel Construction	\$ 9,000,000
Construction Management	<u>900,000</u>
Total	\$ 9,900,000

FISCAL YEAR 2007: The requested amount of \$1,500,000 will be applied as follows:

Item	Amount
Complete Phase IV Conduit and Channel Construction	\$ 1,250,000
Construction Management	<u>250,000</u>
Total	\$ 1,500,000

FLOOD DAMAGE REDUCTION, Fiscal Year 2007

NORTHWESTERN DIVISION

NON-FEDERAL COST: In accordance with the project authorization and the cost sharing policies contained in Section 103(a), (b), (c), (h) and (m) of the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below:

Requirement of Local Cooperation	Payment during Construction	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide all lands, easements, right-of-ways, and dredged material disposal areas.	\$ 15,503,000	
Relocate utilities, buildings, roads, bridges (except railroad bridges), and other facilities, where necessary for construction of the project.	20,525,000	
Bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities		\$ 29,800
Pay one-half of the separable cost allocated to recreation, and bear all costs of operation, maintenance, repair, rehabilitation, and replacement.	1,250,000	1,600
Pay 25 percent of the costs allocated to non-structural flood control and bear all costs of operation, maintenance, repair, rehabilitation, and replacement	29,000	2,600
Total Non-Federal Costs	\$ 37,307,000	\$ 34,000

The ability to pay provisions of WRDA of 1986 have been modified by rule changes published in the Federal Register on January 26, 1995. The new provisions allow elimination of the 5 percent cash contribution if both of the following are met 1) LERRD comprise 35 percent or more of the total project cost and 2) the per capita cost exceeds \$300 per person. The city of Sioux City, Iowa meets both of the requirements to waive the 5 percent cash contribution.

STATUS OF LOCAL COOPERATION: The Project Cooperation Agreement (PCA) with the city of Sioux City, Iowa to sponsor the Perry Creek flood control project was executed on 12 March 1995. The current non-Federal cost estimate of \$37,307,000 which includes a cash contribution of \$1,279,000, is an increase of \$12,366,000 from the non-Federal cost estimate of \$24,941,000 noted in the PCA, which included a cash contribution of \$161,000. The sponsor is aware of and is in agreement with the need for the increases in project cost.

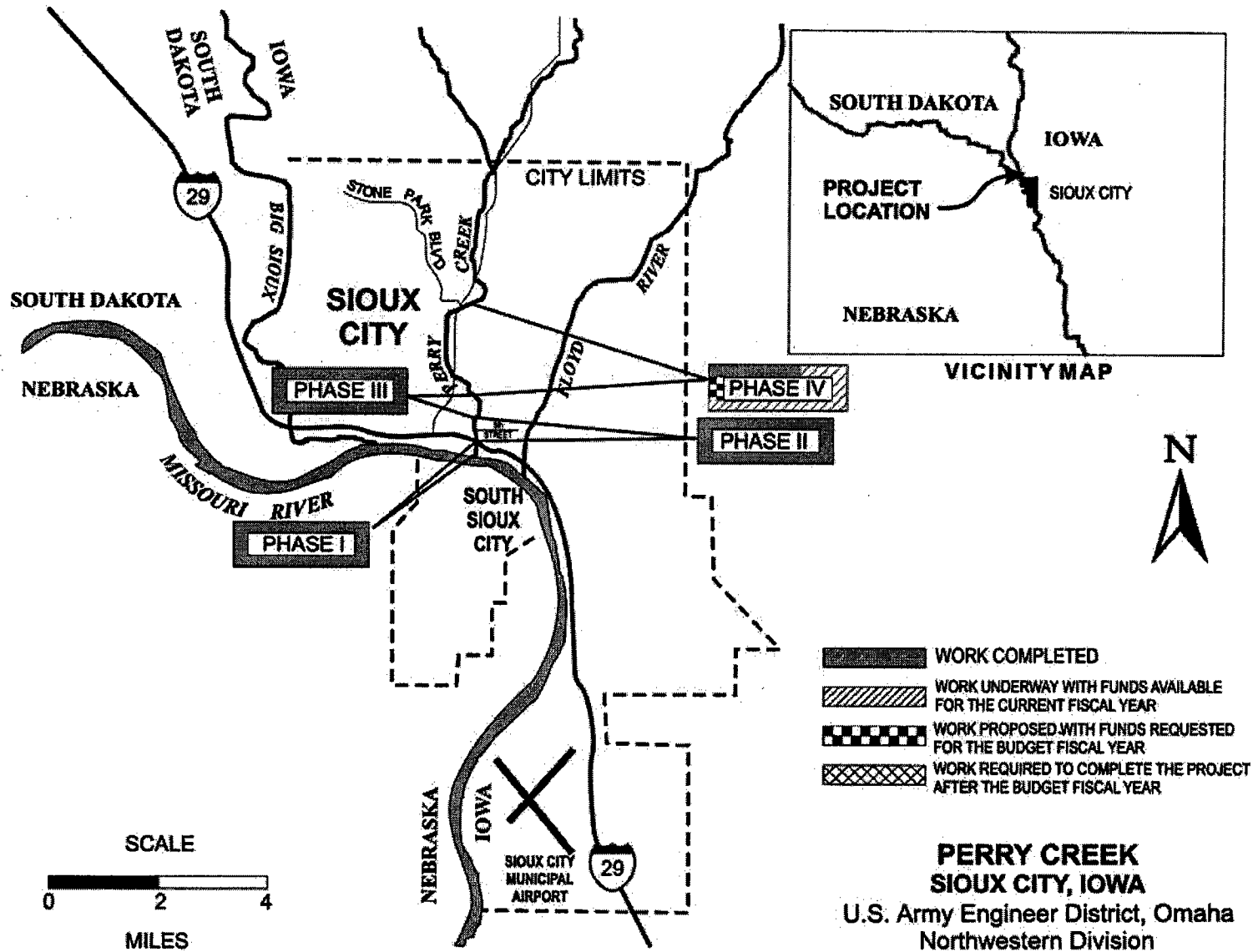
COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$58,036,000 is a decrease of \$687,000 from the latest estimate (\$58,723,000) presented to Congress (FY 2006). This change includes the following items:

Item	Amount
Price Escalation on Construction Features and Changes in Projected Inflation Rates	\$ 88,000
Other Estimating Adjustments	<u>\$ -775,000</u>
Total	\$ -687,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Final EIS was filed with EPA on 17 July 1992.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1984 and funds to initiate construction were appropriated in FY 1995. The mitigation portion of the project is estimated to cost \$25,000.

During the final design of the project in June 2002 it was found that the total project cost would exceed the section 902 limit. A Post Authorization Change report was completed in September 2003 and reauthorization was contained in the FY04 Energy and Water Development Appropriations Act. The revised project estimate reflects a 33 percent increase in real estate cost, an 80 percent increase in utility and road relocation cost and a 22 percent increase in the design and construction cost for the channel, conduit and stilling basin. The current project cost estimate also includes \$4,086,000 for additional cost shared recreation facilities and \$456,000 for investigation of additional flood reduction measures, curation of artifacts and development of FEMA mapping. The current estimate does not include \$1,238,600 that the city has requested for recreational and park features that are not approved for cost sharing.



FLOOD DAMAGE REDUCTION, Fiscal Year 2007

NORTHWESTERN DIVISION

APPROPRIATION TITLE: Construction, General – Local Protection Projects (Flood Control)

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 overbank 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. All work is programmed.

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: 1.6 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 1.3 to 1 at 7 percent.

BASIS OF BENEFIT-COST RATIO: Benefits are from the General Reevaluation Report dated January 2003 at October 2003 price levels.

SUMMARIZED FINANCIAL DATA:		ACCUM PCT. OF EST. FED COST	STATUS (1 Jan 06)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		\$50,967,000			
Estimated Non-Federal Cost		31,533,000			
Cash Contribution	21,086,000		Entire Project	7	TBD
Other Costs	10,447,000				
Total Estimated Project Cost		82,500,000			
Allocations to 30 September 2003		2,382,000			
Allocation for FY 2004		347,000			
Allocation for FY 2005		207,000			
Conference Allowance for FY 2006		3,000,000			PHYSICAL DATA
Allocation for FY 2006		2,970,000 1/			Channel Modification: 10,000 feet
Allocations to 30 September 2006		5,906,000	12%		Levee: 2,800 feet
Allocation Requested for FY 2007		4,000,000	19%		Railroad Bridge Raises: 2 each
Programmed Balance to Complete after FY 2007		41,061,000			Interceptors: 16,000 feet
					Riparian Planting: 12.7 Acres

1/ Allocation reflects reduction of \$30,000 for 1% rescission.

FLOOD DAMAGE REDUCTION, Fiscal Year 2007

NORTHWESTERN DIVISION

JUSTIFICATION: This flood and storm damage reduction 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 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) will result in significant project cost savings. KDOT work on the channel is nearly complete. A dual flood threat exists in the study area that consists of Turkey Creek overbank 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 recommended project will include construction of channel modifications with a one-percent level of protection and tributary floodwater diversion. Average annual benefits are \$8,487,000.

FISCAL YEAR 2006: FY06 funds are being used to complete levee design, and for construction of levee and railroad bridge.

FISCAL YEAR 2007: The requested amount will be applied as follows:

Construction of Levee and Railroad Bridge	\$3,000,000
Planning, Engineering, and Design	500,000
Construction Management	<u>500,000</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.

	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.	4,280,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	6,167,000	

Division: Northwestern

District: Kansas City

Turkey Creek Basin, KS & MO

FLOOD DAMAGE REDUCTION, Fiscal Year 2007

NORTHWESTERN DIVISION

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). 3,967,000

Pay 22 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. 17,119,000 112,000

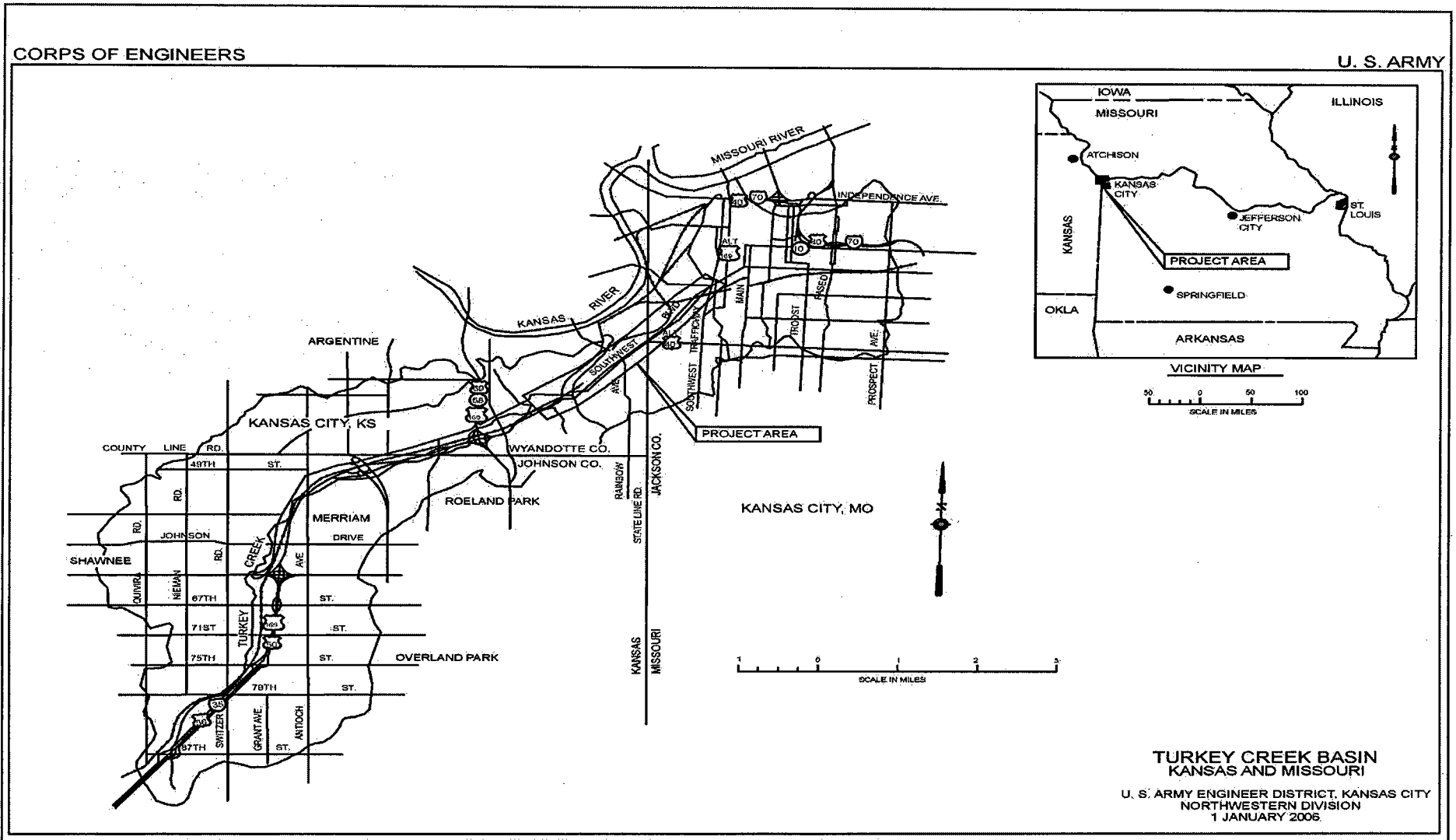
Total Non-Federal Costs 31,533,000 112,000

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) will be signed in FY06 following completion of tunnel work initiated by the Sponsor.

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal cost estimate is \$50,967,000.

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.



APPROPRIATION TITLE: Construction, General – Dam Safety Assurance

PROJECT: Tuttle Creek Dam, Kansas (Continuing)

LOCATION: Tuttle Creek Dam is located in northeastern Kansas on the Big Blue River, 12.3 miles above its confluence with the Kansas River and 6 miles upstream of the City of Manhattan, Kansas.

DESCRIPTION: The Tuttle Creek Dam Safety Assurance project will provide for increased safety to the existing Tuttle Creek Dam and Lake during seismic and flood events through construction of foundation treatment, flood wave run-up barriers, and spillway gate improvements. As an interim measure, a dam failure warning system was installed for the period of construction. The system provides warning for the area from the dam to the confluence of the Big Blue and Kansas Rivers where the highest population density and lowest warning times exist.

To withstand ground motions from the Maximum Credible Earthquake, soil stabilization will be performed on the liquefiable foundation (alluvial sands) beneath the dam using jet grouting beneath the upstream slope and deep soil mixing beneath the downstream slope. Treatment of the downstream foundation will require temporary removal of the existing downstream berm. The implementation of soil stabilization will include conducting additional exploratory borings and soil testing, a soil stabilization technology demonstration, replacement of upstream slope protection due to construction damage and disturbance, and general road and park modifications to accommodate construction and mitigate impacts.

The Probable Maximum Flood (PMF) creates a static pool, which would be within 2 feet of the crest of the dam. Wave action of 5 feet could overtop the dam by 3 feet. Concrete traffic barriers will be installed in place of the upstream guardrail to withstand wave action. The ability of the project to safely pass the PMF is dependent upon the reliability of the spillway tainter gates. The original spillway gate design did not fully consider friction in the bearings for all of the appropriate load cases. Reanalysis indicates that the gate structure is not adequate under all loading conditions. The inability to open two gates would result in overtopping of the dam during a Probable Maximum Flood. In order to ensure the ability to safely pass these flows and avoid overtopping of the dam by the static pool, the structural integrity of the spillway gates must be ensured. As such, general spillway rehabilitation and spillway gate modification are critical to the safety of the dam and will be performed.

AUTHORIZATION: Flood Control Acts of 1938, 1941, and 1944.

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.

FLOOD DAMAGE REDUCTION, Fiscal Year 2007

NORTHWESTERN DIVISION

SUMMARIZED FINANCIAL DATA:

		STATUS (1 Jan 06)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	\$205,715,000			
Estimated Non-Federal Cost	0	Construction Initiated	10	TBD
Total Estimated Project Cost	205,715,000			
Allocations to 30 September 2003	3,733,000			
Allocation for FY 2004	5,457,000	ACCUM		
Allocation for FY 2005	6,858,000	PCT. OF EST.		
Conference Allowance for FY 2006	27,000,000	FED COST		
Allocation for FY 2006	26,730,000	1/		
Allocations to 30 September 2006	42,778,000	21%		
Allocation Requested for FY 2007	38,000,000	39%		
Programmed Balance to Complete after FY 2007	124,937,000			

1/ Allocation reflects reduction of \$270,000 for 1% rescission.

PHYSICAL DATA (All Federal):

Dam: Type - Rolled earth and rock fill and hydraulic fill
 Height - 137 feet above valley floor
 Crest - 7,500 feet long
 Width - 1,200 - 1,600 feet at base, 50 feet at crest

Spillway: Type - Controlled 952 feet wide chute
 Gates: 18 Tainter gates 20 feet (high) x 40 feet (wide)
 Design Capacity - 600,000 cfs

JUSTIFICATION: Tuttle Creek Dam became operational in 1962 and has prevented more than \$3.9 billion in flood damages. The project provides flood protection for the Big Blue, Kansas and Missouri River valleys, as well as the other authorized purposes of fish and wildlife, water quality, water supply, and supplemental releases for navigation, on the Missouri River downstream of Kansas City.

Tuttle Creek Dam was evaluated for adequacy, considering the design earthquake (Maximum Credible Earthquake, moment magnitude 6.6 at 20 km from the site). The design earthquake is capable of inducing liquefaction of the foundation sands, failure of the embankment slopes, significant deformation of the entire embankment, and probable release of the lake within 2 to 6 hours. A 5.7 magnitude earthquake could induce limited liquefaction beneath the downstream toe, and damage to the relief wells due to slope deformation. With the loss of the relief wells, uncontrolled release of the pool initiated by piping through the foundation could occur. A damaging earthquake in the 5.7 to 6.6 magnitude range that could impact Tuttle Creek Dam would most likely originate from the Humboldt Fault Zone, near Wamego, Kansas. The 6.6 magnitude earthquake is the largest possible earthquake that is believed to be possible and the approximate probability of the 5.7 magnitude earthquake is 3 percent over 50 years. The consequences of an earthquake induced dam breach would include the loss of the project, loss of all project benefits (\$56.2 million), extensive downstream damage (estimated \$458 million), and high potential for loss of life (estimated at 384 of the 13,000 population at risk).

FISCAL YEAR 2006: Funds are being used to operate Dam Failure Warning System, construct Cut-off Wall, initiate Sill Stabilization, maintain an advisory panel, and supervise and administer construction.

FISCAL YEAR 2007: FY 2007 funds will be used to operate the dam failure warning system, construct spillway modifications, continue soil stabilization construction, maintain a board of consultants, and oversee project construction. The requested amount of \$38,000,000 will be applied as follows:

Item	Amount
Spillway Modification	\$6,500,000
Ground Modification	29,000,000
Planning, Engineering, and Design/EDC	1,200,000
Construction Management	1,100,000
Operate Dam Failure Warning System	<u>200,000</u>
Total	\$38,000,000

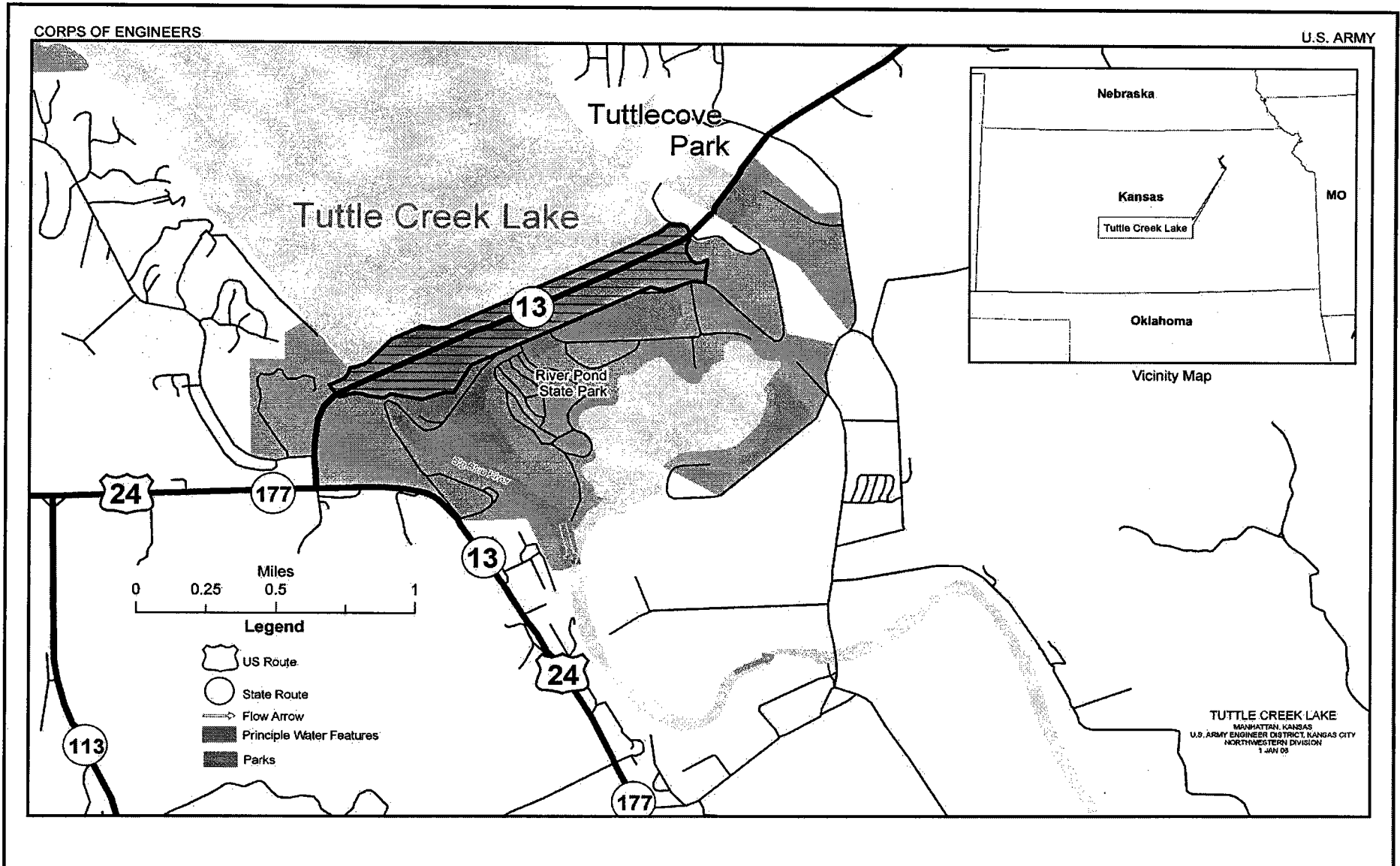
NON-FEDERAL COSTS: Not applicable.

STATUS OF LOCAL COOPERATION: A cost sharing agreement is not required for the proposed dam safety improvements. However, there is an existing water supply contract with the State of Kansas for water supply storage and the State has provided reimbursement for .3735 percent of the original cost of construction and is continuing annual reimbursements for operation and maintenance. Accordingly, the State will be required to reimburse 0.3735 percent of costs of scheduled dam safety improvements, or approximately \$770,000. The state has been formally notified of the requirement and concurs with scheduled work.

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal cost estimate, from FY 2002, of \$205,715,000 is the same as last presented to Congress (FY 2006).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Environmental Impact Statement and associated Evaluation Report were completed in July 2002. The final National Environmental Policy Act public comment period ended on November 2002, and Northwestern Division and Headquarters USACE approved the documents in December 2002. The Record of Decision was signed at Headquarters USACE on 06 January 2003.

OTHER INFORMATION: The Dam Safety Evaluation Report was approved in December 2002. Construction funds were first provided in FY 2003 though the Construction General, Dam Safety and Seepage/Stability Correction Program account.



FLOOD AND COASTAL STORM DAMAGE REDUCTION

CONSTRUCTION

SOUTH ATLANTIC DIVISION

APPROPRIATION TITLE: Construction, General - Local Protection Project (Flood Control)

PROJECT: Arecibo River, Puerto Rico (Continuing)

LOCATION: The city of Arecibo is located on the northern coast of Puerto Rico, approximately 40 miles west of San Juan. The Rio Arecibo Basin covers a 272 square mile area and includes the upstream towns of Utuado, Jayuya, and Adjuntas.

DESCRIPTION: The proposed plan includes channel improvements, a floodwall, and a levee along the Arecibo River; a levee along the Tanama River; and a plug, channel improvements, and a diversion channel along the Santiago River.

AUTHORIZATION: Water Resource Development Act 1996, Sec 101(a) (26).

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: 6.5 to 1 at 5-5/8 percent

BASIS OF BENEFIT - COST RATIO: Benefits are from the economic analyses performed for the July 1998 Limited Reevaluation Report updated at October 2003 price levels.

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST	STATUS (1 Jan 2006)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	21,600,000		Relocations – Roads Cemeteries/Utilities	39	TBD
Estimated Non-Federal Cost	8,300,000		Levees and Floodwalls	0	TBD
Cash Contributions	2,682,000		Recreation	0	TBD
Other Costs	5,618,000		Fish/Wildlife Facilities	0	TBD
			Channels & Canals	0	TBD
Total Estimated Project Costs	29,900,000		Entire Project	10	TBD
Allocations through 30 September 2003	4,801,000				
Allocation for FY 2004	523,000				
Allocation for FY 2005	1,009,000				
Conference Allowance for FY 2006	4,000,000				
Allocation for FY 2006	3,960,000	1/			
Allocations through FY 2006	10,293,000	48%			
Allocation Requested for FY 2007	8,900,000	89%			
Programmed Balance to Complete After FY 2007	2,407,000				
Unprogrammed Balance to Compl After FY2007	0				

1/ Reflects rescission of \$40,000

PHYSICAL DATA

Relocations - Bridges (Replacement)	5
Levee	6,325 Meters
Floodwalls	315 Meters
Channels	6,300 Meters
Jetty	30.5 Meters
Wetland Mitigation	7.2 Acres
Recreation Trails	1,465 Meters

Division: South Atlantic

District: Jacksonville

Arecibo River, PR

6 February 2006

JUSTIFICATION: Floods impact over 500 acres of urbanized city area, including 800 residences and over 100 businesses and public facilities. The upstream towns of Utuado, Jayuya, and Adjuntas have also been subject to the frequent flooding. Extensive floods occurred in May and October 1985 and again in September 1996 with Hurricane Hortense. When Hurricane Georges hit the island in September 1998, the municipality of Arecibo experienced the 100-year flood event, resulting in significant damages to commercial and residential properties and loss of the Victor Rojas Bridge. In addition to quantifiable damages, severe disruption of transportation and socio-economic activities result from these floods. Average annual benefits are as follows:

Annual Benefits	Amount
Inundation Reduction	6,609,000
Employment	80,000
Advance Bridge Replacement	161,000
Flood Insurance Cost	9,000
Recreation	236,000
Total	7,095,000

FISCAL YEAR 2006: Fiscal Year 2006 funds will be used to continue construction of project channels, levees, and culvert structures; engineering during construction; and construction management.

FISCAL YEAR 2007: The requested amount will be applied as follows:

Channels and Canals	\$ 4,773,000
Levees, Floodwalls & Structures	2,636,000
Fish and Wildlife	170,000
Floodway Control & Diversion Structures	258,000
Planning, Engineering & Design	200,000
Construction Management	753,000
Total	\$ 8,900,000

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, and Replacement Costs
Provide lands, easements, rights of way, and dredged material disposal areas	3,147,000	
Modify or relocate buildings, utilities, roads, bridges, (except railroad bridges), and other facilities, where necessary in the construction of the project	2,471,000	
Pay one-half of the separable costs allocated to recreation and bear all costs of operation, maintenance, and replacement of recreation facilities.	314,000	
Pay 8.17 percent of the first costs allocated to flood control, and bear all cost of operation, maintenance, and replacement of flood control structures.	2,368,000	76,000
Total Non-Federal Costs	8,300,000	76,000

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

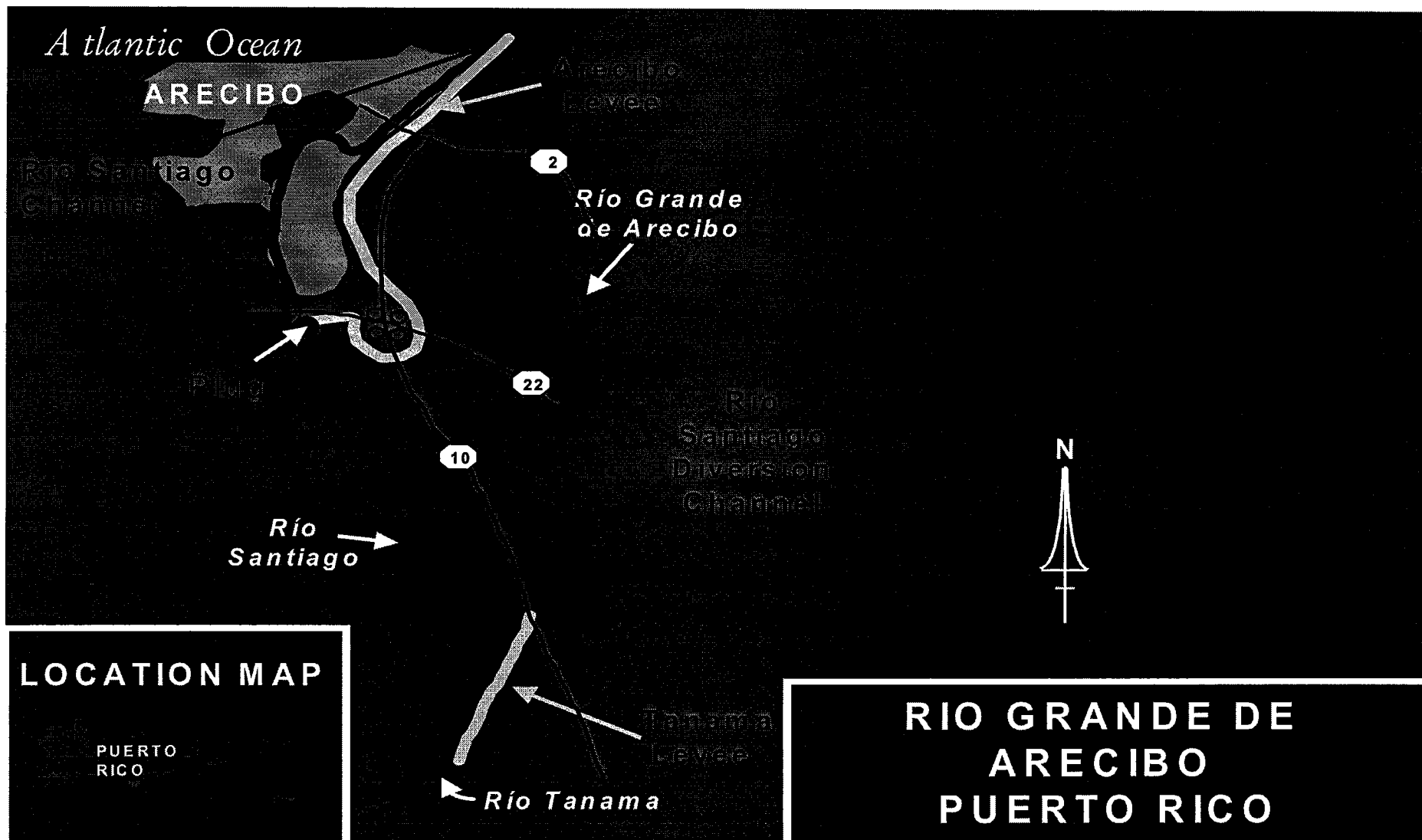
STATUS OF LOCAL COOPERATION: The Puerto Rico Department of Natural and Environmental Resources (DNER), is the local sponsor. The Project Cooperation Agreement was executed in September 2001. The local sponsor has acquired real estate interests needed for the project in excess of \$3,000,000 and is providing its share of contributed funds for the first contract underway.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal (Corps) cost estimate of \$21,600,000 is an increase of \$4,900,000 over the latest estimate (\$16,700,000) presented to Congress (FY 2006). This change includes the following items:

Item	Amount
Price escalation construction feature	\$533,000
Post Contract Award and Other Estimating Adjustments	4,367,000
Total	\$4,900,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement for the project was filed on 10 December 1993.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design (PED) were appropriated in Fiscal Year 1994 and PED was complete in September 1999. Funds to initiate a construction new start were appropriated in Fiscal Year 2000. Wildlife Facility and Sanctuary costs are estimated at \$487,000.



APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: Cedar Hammock (Wares Creek), Florida (Continuing)

LOCATION: The project area is located in Bradenton and unincorporated Manatee County on the southwest coast of Peninsular Florida.

DESCRIPTION: The project provides for clearing and snagging from approximately 500 feet upstream of Manatee Avenue bridge and extending 17th Avenue West; trapezoidal grass-lined channel, 1V:2H side slopes, 26-foot-bottom width from 17th Avenue West to 21st Avenue West; Vertical Sheet Pile Wall channel from just upstream of 21st Avenue West to 14th Street West (B.R. 41) with a 40-foot-bottom; and trapezoidal grass-lined channel, 1V:2H side slopes, 26-foot-bottom width from upstream of 14th Street West (B.R. 41) and extending to just downstream of 44th Avenue West (Cortez Road) bridge.

AUTHORIZATION: Water Resources Development Act of 1996

REMAINING BENEFIT-REMAINING COST RATIO: 3.9 to 1 at 7.000 percent.

TOTAL BENEFIT-COST RATIO: 3.3 to 1 at 7.000 percent.

INITIAL BENEFIT-COST RATIO: 3.3 to 1 at 7.125 percent.

BASIS OF BENEFIT-COST RATIO: Benefits are included in the Cedar Hammock (Wares Creek) Final Detailed Project Report and Environmental Assessment Report completed in April 1995 revised in 1996 at October price levels.

SUMMARIZED FINANCIAL DATA		ACCUM. PCT OF EST FED COST	STATUS (1 January 2006):	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		13,300,000			
Estimated Non-Federal Cost		7,800,000	Channels & Canals	0	TBD
Cash Contribution	2,066,000		Total Project	0	TBD
Other	5,734,000				
Total Estimated Project Cost		21,100,000			
Allocations through 30 September 2003		1,318,000			
Allocation for FY 2004		186,500			
Allocation for FY 2005		10,000			
Conference Allowance for FY 2006		750,000			
Allocation for FY 2006		742,000	1/		
Allocations through FY 2006		2,256,500	17%		
Allocation Requested for FY 2007		6,000,000	62%		
Scheduled Balance to Complete After FY 2007		5,043,500			
Unscheduled Balance to Complete After FY 2007		0			
1/ Reflects rescission of \$8,000					

JUSTIFICATION: The Cedar Hammock (Wares Creek) are is urban, and existing development has encroached upon the channel in several areas. Heavy rains in September 1988 and June 1992 caused extensive flooding to the area and impacted residential as well as commercial development. Under existing conditions, average annual flood damages are estimated at \$6,725,000.

Annual Benefits	Amount
Flood Protection	3,735,000
Total	3,735,000

FISCAL YEAR 2006: Fiscal Year 2006 funds will be used for plans and specifications, execution of Project Cooperation Agreement, and the first construction contract.

Division: South Atlantic

District: Jacksonville
6 February 2006

Cedar Hammock (Wares Creek), Florida

FISCAL YEAR 2007: The requested amount will be applied as follows:

Continue Excavation Contract	\$ 5,300,000
Engineering and Design	300,000
Supervision & Administration	400,000
Total	\$ 6,000,000

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, rights of way, and borrow and excavated or dredged material disposal areas.	5,734,000	
Modify or relocate utilities, roads, bridges, and other facilities, where necessary for the construction of the project.	515,000	
Pay 10.15 percent of the costs allocated to flood damage reduction during construction.	1,551,000	
Total Non-Federal Costs	7,800,000	

STATUS OF LOCAL COOPERATION: Manatee County, Florida strongly supports this project. The Project Cooperation Agreement will be executed in the 3rd quarter of FY 2006.

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal (Corps of Engineers) cost estimate of \$13,300,000 is an increase of \$1,000,000 from the latest estimate (\$12,300,000) presented to Congress (FY2001). This change includes the following items:

Item	Amount
Price Escalation on Construction Features	\$ 1,000,000
Total	\$ 1,000,000

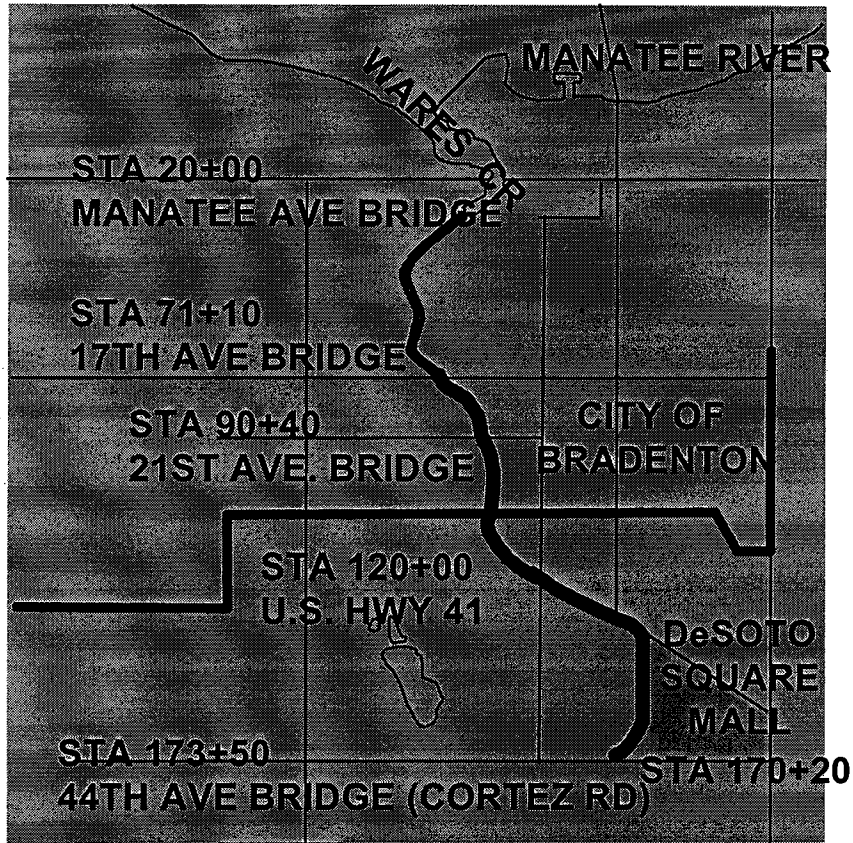
STATUS OF ENVIRONMENTAL IMPACT STATEMENT: Final Environmental Assessment was signed April 13, 1995.




OTHER INFORMATION: Preconstruction, Engineering, and Design was initiated in August 1997 and is scheduled for completion in the 4th quarter of FY 2006.

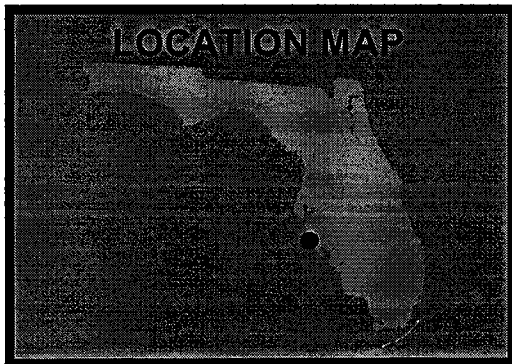
Division: South Atlantic

District: Jacksonville
6 February 2006

Cedar Hammock (Wares Creek), Florida



-  CLEARING AND SNAGGING
-  VERTICAL SHEET PILE WALL, 40 FT. BOTTOM WIDTH
-  TRAPEZOIDAL GRASS-LINED CHANNEL, 1V:2H, 26 FT. BOTTOM WIDTH



APPROPRIATION TITLE: Construction, General - Local Protection Project (Flood Control)

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.

DESCRIPTION: The proposed plan calls for improvements to 11.2 miles of the existing channels of Rio Puerto Nuevo and Rio Piedras and five tributaries of the Rio Puerto Nuevo drainage basin. The project is designed to provide 100-year flood protection for the areas adjacent to the Puerto Nuevo and its tributaries. All work is programmed.

AUTHORIZATION: Water Resources Development Act of 1986.

REMAINING BENEFIT - REMAINING COST RATIO: 5.7 to 1 at 7 percent.

TOTAL BENEFIT - COST RATIO: 3.6 to 1 at 7 percent.

INITIAL BENEFIT - COST RATIO: 4.5 to 1 at 8.000 percent.

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 2006)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	339,500,000		Relocations	46	TBD
			Roads, Railroads, Bridges	47	TBD
Estimated Non-Federal Cost	118,700,000		Channels and Canals	37	TBD
Cash Contributions	50,623,000		Recreation	0	TBD
Other Costs	68,077,000				
Total Estimated Project Costs	458,200,000		Entire Project	40	TBD
Allocations thru 30 September 2003	96,950,000				
Allocation for FY 2004	22,717,000				
Allocation for FY 2005	15,450,000				
Conference Allowance for FY 2006	20,000,000				
Allocation for FY 2006	19,800,000				
Allocations through FY 2006	154,917,000	1/ 46%			
Allocation Requested for 2007	25,000,000	53%			
Programmed Balance to Complete after FY 2007	159,583,000				
Unprogrammed Balance to Complete after FY 2007	0				

1/ Reflects rescission of \$200,000

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

6 February 2006

JUSTIFICATION: The intense development in the basin has altered the natural discharge patterns, significantly increased the runoff rates and restricted the flows in the flood plain. There are over 240,000 people living in the 25 square mile drainage basin. The area is over 90% developed. Development has progressed to the point where some of the tributary channels are not capable of carrying the two-year storm without causing flooding. In many areas, houses and other buildings are built adjacent to the banks of the channels and further restrict flood flows. Over 5,700 families would be subject to flooding from the 100-year storm under existing conditions. The average annual rainfall is about 71 inches. Average annual benefits are as follows:

Annual Benefits	Amount
Flood Control	66,750,000
Total	66,750,000

FISCAL YEAR 2006: Fiscal Year 2006 funds will be used to continue the De Diego Bridge contract, the Bechara Channel contract, engineering during construction and construction management for the two construction contracts.

FISCAL YEAR 2007: The requested amount will be applied as follows:

Roads, Railroads, Bridges	\$ 5,653,000
Channels and Canals	16,087,000
Planning, Engineering, and Design	1,086,000
Supervision and Administration	2,174,000
Total	\$25,000,000

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.	27,590,000	0
Modify or relocate buildings, utilities, roads, bridges (except railroad bridges), and other facilities, where necessary in the construction of the project.	40,487,000	0
Pay one-half of the separable costs allocated to recreation and bear all costs of operation, maintenance, and replacement of recreation facilities.	412,000	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.	50,211,000	0
Total Non-Federal Costs	118,700,000	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 \$339,500,000 is unchanged from the estimate (\$339,500,000) last presented to Congress (FY 2006). This change includes the following items:

Item	Amount
Price escalation on construction features	\$ 1,600,000
Post contract award and other estimating adjustments	- 1,600,000
Total	\$ 0

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.

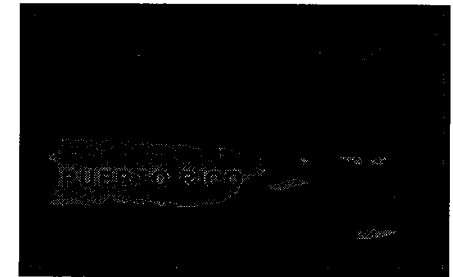
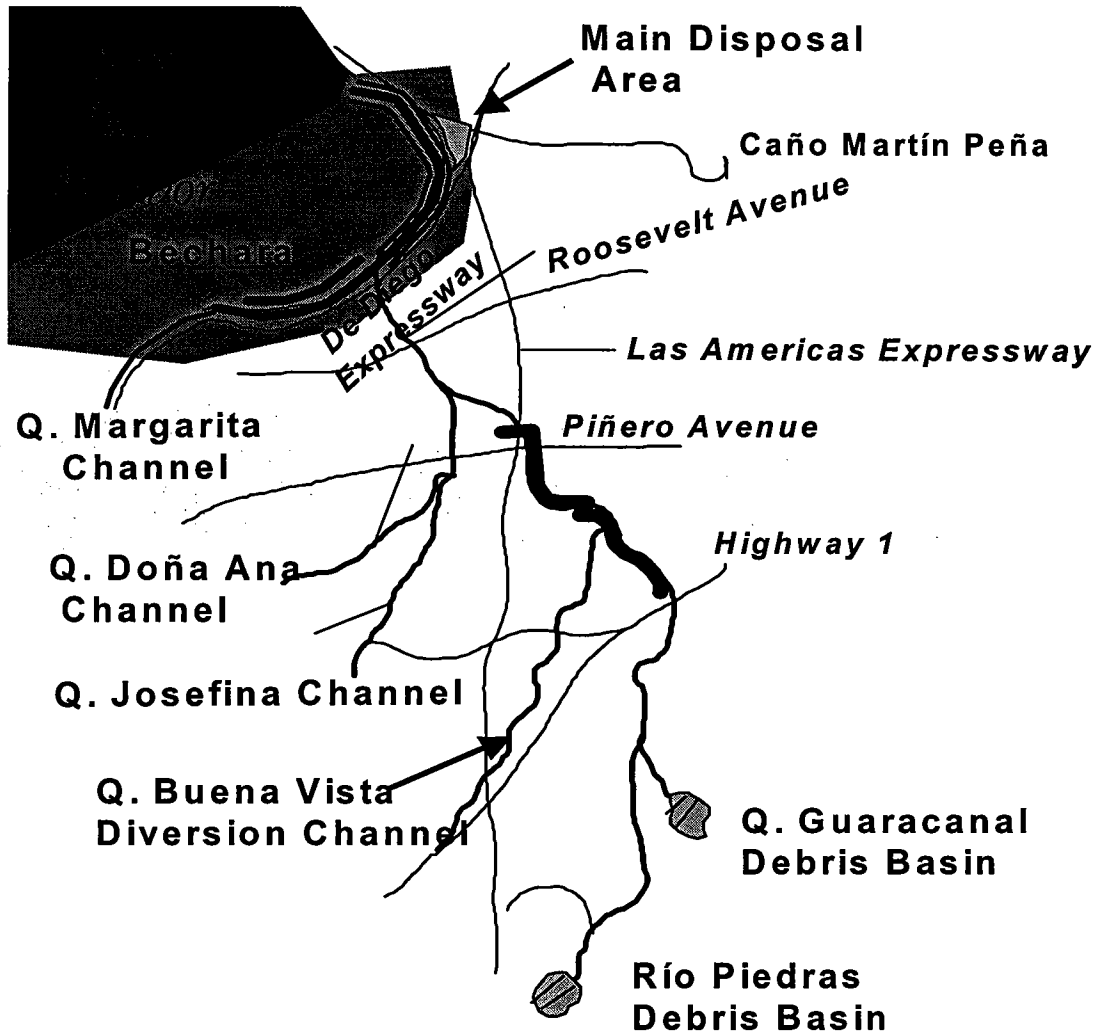
OTHER INFORMATION: Funds to initiate preconstruction, engineering and design were appropriated in Fiscal Year 1987. Funds to initiate construction were appropriated in Fiscal Year 1994.

Division: South Atlantic








District: Jacksonville

Rio Puerto Nuevo, PR

6 February 2006



LEGEND

-  MAIN DISPOSAL AREA
-  CONCRETE CHANNELS
-  EARTH CHANNEL
-  VERTICAL WALLS
-  RECREATION FEATURE
-  MITIGATION AREA
-  LEVEE



APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

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 damage reduction features include flood proofing at two locations, training walls to prevent floodwater intrusion into low areas along the river, replacement of two low-level bridges that constrict stream flows, and a flood warning system. Recreation facilities consist of a 9.5-mile recreation trail along the project reach and access and parking areas. All work is programmed.

AUTHORIZATION: Water Resources Development Act of 1986, Energy and Water Development Appropriation Act of 1990 and Energy and Water Development Appropriation Act of 2004.

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

TOTAL BENEFIT - COST RATIO: 1.4 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.

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST	STATUS (1 Jan 2006)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		\$44,200,000	Entire Project	34	TBD
Estimated Non-Federal Cost		\$19,800,000			
Cash Contributions	8,604,400				
Other Costs	11,195,600				
Total Estimated Project Cost		\$64,000,000			
Allocations to 30 September 2003		\$11,040,000			
Allocation for FY 2004		1,350,000			
Allocation for FY 2005		2,782,000			
Conference Allowance for FY 2006		5,000,000			
Allocation for FY 2006		4,950,000	1/		
Allocations through FY 2006		20,122,000	46%		
Allocation Requested for 2007		8,300,000	64%		
Programmed Balance to Complete after FY 2007		15,778,000			
Unprogrammed Balance to Complete after FY 2007		0			

1/ Reflects \$50,000 reduction assigned as rescission.

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

6 February 2006

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 will provide improvements for flood protection and recreation. Most of the property that would be protected is industrial and commercial 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 control facilities are provided. The project would reduce these damages by \$3,126,200. 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 flood problem. Firms have to use 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 will have a beneficial effect on a variety of firms and increase return on investment throughout the floodplain. Average annual benefits are as follows:

Annual Benefits	Amount
Flood Damage Prevention	\$5,111,000
Recreation	1,642,000
Total	\$6,753,000

FISCAL YEAR 2006: The allocated amount of \$4,950,000 will be used to continue construction, continue monitoring of endangered species, planning, engineering and design and construction management.

FISCAL YEAR 2007: The requested amount of \$8,300,000 will be applied as follows:

Continue Construction	\$7,050,000
Continue Monitoring of Endangered Species	300,000
Planning, Engineering and Design	500,000
Construction Management	450,000
Total	\$8,300,000

Division: South Atlantic

District: Wilmington

Roanoke River Upper Basin, VA, Headwaters Area

6 February 2006

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	\$ 6,315,000	
Modify or relocate buildings, utilities, roads and other facilities except railroad bridges, where necessary for construction of the project.	4,880,600	
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 control in cash in addition to all lands, easements, rights of way and relocations, and bear all costs of operation, maintenance, and replacement of flood control facilities.	2,086,400	\$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	6,141,000	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	\$19,800,000	\$110,000

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

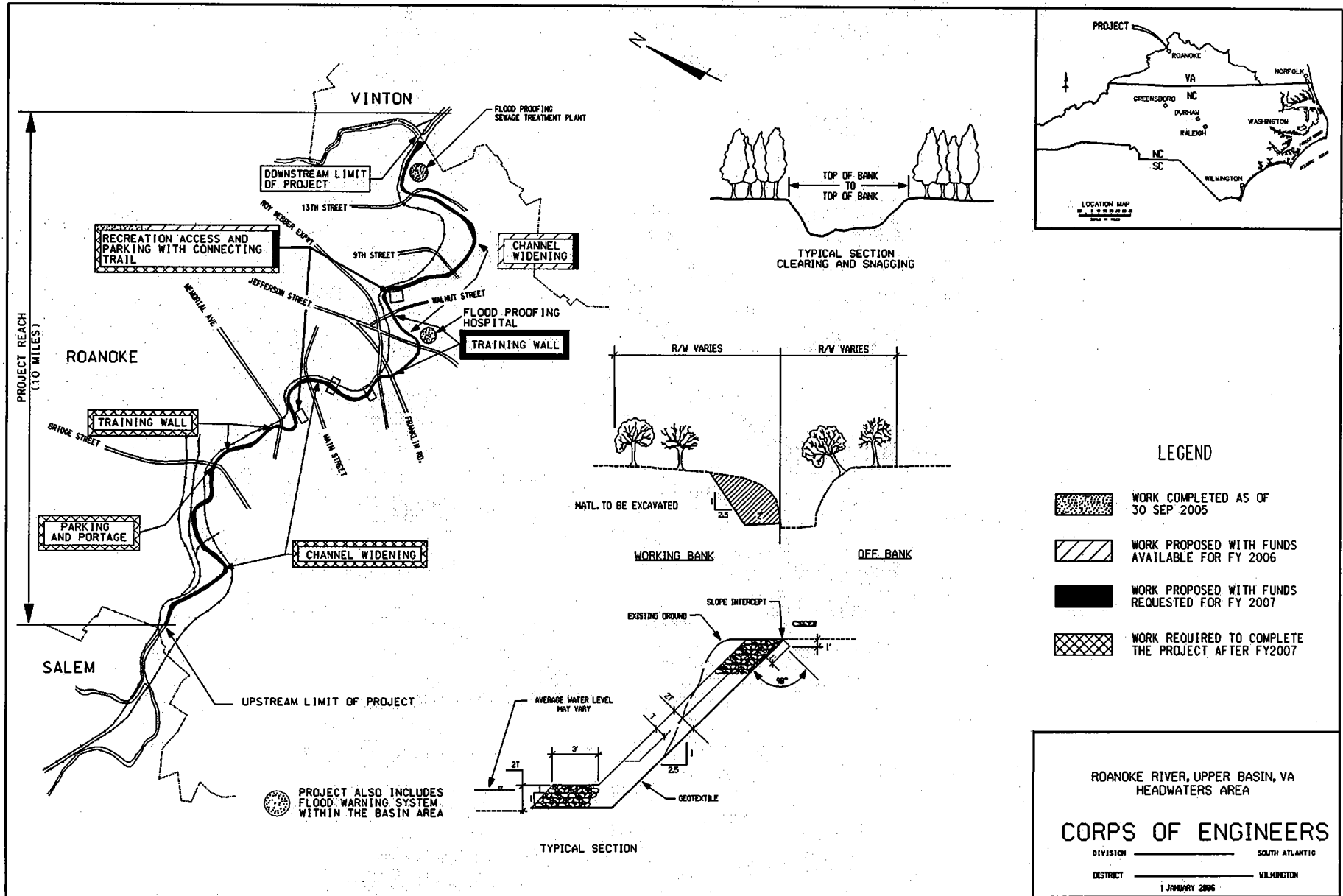
STATUS OF LOCAL COOPERATION: The City of Roanoke is the project sponsor. On 11 April 1989 the voters of the City of Roanoke approved the sale of \$7.5 million worth of bonds to pay Roanoke's required cash contribution, acquire lands that are not currently owned and pay for relocation of bridges and utilities. The Local Cooperation Agreement was executed on 25 June 1990. A supplement to the Local Cooperation Agreement addressing the reimbursement for the flood proofing of the hospital was executed in January 1993. Design and construction of the project had been deferred for eight years due to concerns the sponsor had over assuming liability for potential HTRW issues that might arise during project construction. The City in conjunction with the Corps, EPA 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 (Corps) cost estimate of \$44,200,000 is a decrease of \$1,600,000 over the latest estimate (\$45,800,000) presented to Congress (FY 2006). This change includes the following items:

Item	Amount
Price De-escalation on Construction Features	-\$1,600,000
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 was 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 will be monitored during project construction. Reimbursement for the Federal share of the flood proofing of Roanoke Hospital, as authorized by Section 102cc of the Water Resources Development Act of 1990, in the amount of \$501,000, was made in February 1993.



Division: South Atlantic

District: Wilmington

Roanoke River Upper Basin, VA, Headwaters Area

6 February 2006

FLOOD AND COASTAL STORM DAMAGE REDUCTION

CONSTRUCTION

SOUTH PACIFIC DIVISION

APPROPRIATION TITLE: Construction, General - Reservoirs

PROJECT: Acequias Irrigation System, New Mexico (Continuing)

LOCATION: There are about one thousand recognized Acequias throughout the state of New Mexico. Most are located in north-central New Mexico in the counties of Mora, Rio Arriba, Santa Fe, San Miguel and Taos.

DESCRIPTION: Protect and restore river diversions and associated canals of community Acequia systems in New Mexico.

AUTHORIZATION: Water Resources Development Acts of 1986 and 1996.

REMAINING BENEFIT - REMAINING COST RATIO: Not applicable. 1/

TOTAL BENEFIT - COST RATIO: Not applicable. 1/

INITIAL BENEFIT - COST RATIO: Not applicable. 1/

BASIS OF BENEFIT - COST RATIO: Not applicable. 1/

SUMMARIZED FINANCIAL DATA		ACCUM. PCT. OF EST. FED. COST	STATUS (1 Jan 2006)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	\$66,000,000		Diversion Structures Canals and Ditches	33	TBD
Estimated Non-Federal Cost Cash Contribution	\$22,000,000	22,000,000	<u>1/</u> Project was authorized without regard to economic analysis in accordance with Section 1113 of the Water Resources Development Act of 1986.		
Total Estimated Project Cost	\$88,000,000				
Allocations through 30 September 2003	\$19,908,000				
Allocation for FY 2004	1,632,000				
Allocation for FY 2005	424,000				
Conference Allowance for FY 2006	2,325,000				<u>2/</u> Reflects \$23,000 reduction assigned as rescission.
Allocation for FY 2006	2,302,000 <u>2/</u>				
Allocations through FY 2006	24,266,000	37			

Division: South Pacific

District: Albuquerque
6 February 2006

Acequias Irrigation System, NM

SUMMARIZED FINANCIAL DATA (continued)

ACCUM.
PCT. OF EST.
FED. COST

Allocation Requested for FY 2007	\$ 2,400,000	40
Programmed Balance to Complete after FY 2007	39,334,000	

JUSTIFICATION: The acequia community ditch systems provide irrigation water to about 160,000 acres on an estimated 12,000 farms. About seventy percent of the farms average less than twenty acres in size and are used for subsistence farming. Acequias have been in existence since the early Spanish Colonization period of the 17th and 18th centuries and represent one of the oldest forms of cooperative institutions in the United States. They are an integral part of the culture and heritage of New Mexico. Justification for the project is based upon the historic and cultural significance the Acequias have for the local residents and the major role they play in the overall local economy. Flood damages to the acequia diversion dams and main delivery systems and subsequent interruption of water flow to the systems can have a devastating effect on the irrigators. At the most critical times for irrigation, high flood flows from spring snowmelt at the beginning of the irrigation season and from intense summer thunderstorms during the peak of irrigation cause structural damage or complete loss of ditch structures needed for delivering water to crops.

FISCAL YEAR 2006: Current year funds will be used to:

Continue Rehabilitation of Acequias	\$ 1,938,000
Planning, Engineering and Design	304,000
Construction Management	60,000
Total	\$ 2,302,000

FISCAL YEAR 2007: The requested amount will be applied as follows:

Continue Rehabilitation of Acequias	\$ 1,680,000
Planning, Engineering and Design	360,000
Construction Management	360,000
Total	\$ 2,400,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Acts of 1986 and 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
Pay 25 percent of the costs of Acequias restoration following the completion of reconnaissance level activities.	\$22,000,000 <u>3/</u>	\$ 0 <u>4/</u>
Total Non-Federal Cost	\$22,000,000 <u>3/</u>	\$ 0 <u>4/</u>

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

3/ Section 334 of the Water Resources Development Act of 1996 amended Section 1113 of the Water Resources Development Act of 1986 to make the Federal share of reconnaissance studies carried out by the Secretary 100 percent.

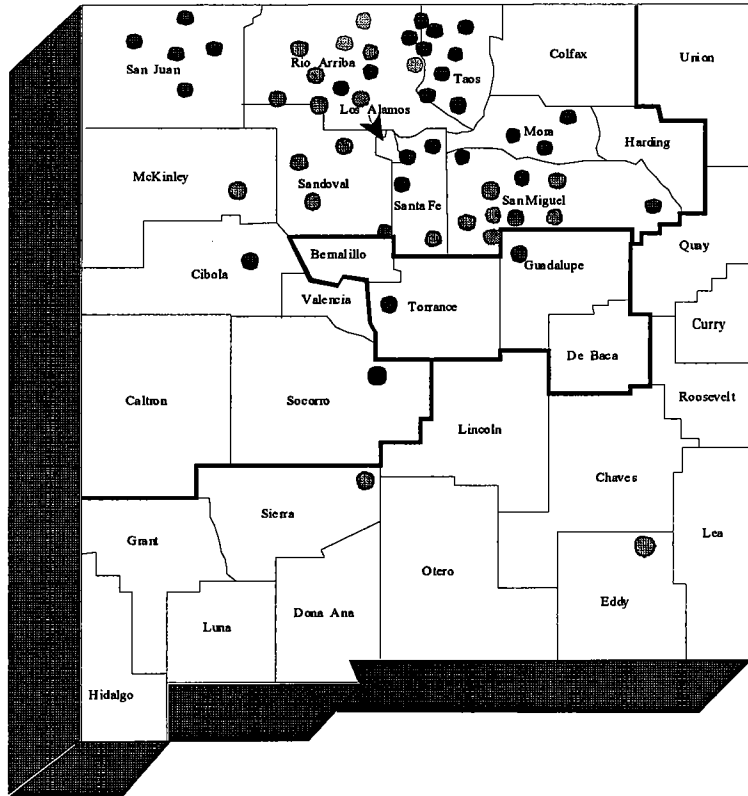
4/ Operation, maintenance, repair, rehabilitation and replacement costs historically are the responsibility of each acequia organization.

STATUS OF LOCAL COOPERATION: The local sponsor, the State of New Mexico, has enacted legislation whereby the State provides 17-1/2% of the project costs and low interest loans to the local Acequias for the remaining 7-1/2% of the non-Federal share. The State of New Mexico has appropriated, on an annual basis, the funds necessary to meet the requirements of local sponsorship. Local Cooperation Agreements were signed for funds appropriated in Fiscal Year 1988, Fiscal Year 1989, and Fiscal Year 1990. The general Local Cooperation Agreement to cover all the Acequias within the State for remaining work after Fiscal Year 1990 was executed in June 1992. An amended Project Cooperation Agreement, incorporating the cost sharing contained in Section 334 of the Water Resources Development Act of 1996, was executed in March 1999.

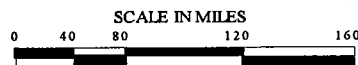
COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$66,000,000 (1 October 2005) is the same as the latest estimate presented to Congress (FY 2006).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An Environmental Assessment will be prepared for each Acequia Restoration Project prior to initiating construction.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in Fiscal Year 1987. Funds to initiate construction were appropriated in Fiscal Year 1988. The state of New Mexico is the local sponsor for all the Acequias projects within the State.



STATE OF NEW MEXICO



STATUS OF WORK

- Work completed as of 30 Sept 2005
- Work proposed with funds available for FY 2006
- Work proposed with funds requested for FY 2007
- Work required to completed the project after 30 Sept. 2007

**ACEQUIAS IRRIGATION SYSTEM
NEW MEXICO**

U.S. Army Corps of Engineers
Albuquerque District, South Pacific Division
Albuquerque, New Mexico
1 January 2005

11 August 2005

APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: Alamogordo, New Mexico (Continuing)

LOCATION: The project is located in Otero County, in and near Alamogordo, New Mexico. The city of Alamogordo is situated at the foot of the Sacramento Mountains near the eastern edge of the Tularosa (Closed) Basin.

DESCRIPTION: The authorized project consists of two concrete and rip-rap lined diversion channels and a flood detention structure which will intercept flood flows from canyons and arroyos in the Sacramento Mountains east of the City.

AUTHORIZATION: Flood Control Act of 1962 Energy and Water Appropriations Act (PL 108-137, Section 105) of 2004.

REMAINING BENEFIT - REMAINING COST RATIO: 5.7 to 1 at 7 percent.

TOTAL BENEFIT - COST RATIO: 2.2 to 1 at 7 percent.

INITIAL BENEFIT - COST RATIO: 5.8 to 1 at 7 percent (FY 1988).

BASIS OF BENEFIT - COST RATIO: Benefits are from the General Reevaluation Report, approved in March 1999, using October 1998 price levels.

SUMMARIZED FINANCIAL DATA			ACCUM. PCT. OF EST. FED. COST	STATUS (1 Jan 2006)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		\$41,400,000		Entire Project	48	TBD
Estimated Non-Federal Cost		13,800,000				
Cash Contribution	\$11,600,000					
Other Costs	2,200,000					
Total Estimated Project Cost		\$55,200,000				
Allocations through 30 September 2003		\$12,423,000				
Allocation for FY 2004		2,168,000				
Allocation for FY 2005		4,464,000				
Conference Allowance for FY 2006		4,200,000				
Allocation for FY 2006		4,158,000 <u>1/</u>				
Allocations through FY 2006		23,213,000	56			
				PHYSICAL DATA		
				Concrete Lined Channel:	47,500 ft.	
				Sediment Basins:	5	
				Detention Basins:	1	
				Stilling Basin:	1	
				Relocation	3 (RR Bridges)	
				<u>1/</u> Reflects \$42,000 reduction assigned as rescission.		

Division: South Pacific

District: Albuquerque
6 February 2006

Alamogordo, NM

SUMMARIZED FINANCIAL DATA (continued)	FED. COST	ACCUM. PCT. OF EST.
Allocation Requested for FY 2007	\$ 4,200,000	66
Programmed Balance to Complete after FY 2007	13,987,000	

JUSTIFICATION: There are no well-defined watercourses in the Tularosa (Closed) Basin. Many canyons and arroyos which descend to the valley floor from the mountains bordering the basin carry runoff. Several arroyos head on the west slope of the Sacramento Mountains and flow westward through the city of Alamogordo, causing extensive damage to residential and business properties, schools and churches, utilities, streets, highways, roads, and other public properties. The major problem arroyos from north to south are Dry, Beeman, Marble, and Alamo Canyons. Also, several minor unnamed arroyos in the vicinity contribute to the problem. Estimated total property valuation of the area in the 100-year flood plain is \$520,000,000 (1 October 2005). Estimated damages from an occurrence of the one percent chance flood under present conditions are \$93,000,000. Records indicate that from 1935 through 1959, eleven floods exceeded the capacity of railroad drainage structures in the area, overtopping the tracks by as much as two feet. Floods on 17 and 26 August 1959 caused estimated damages of \$240,000 and \$57,000, respectively. These damages, based on 1 October 2005 price levels, would be \$2,900,000 and \$710,000, respectively. Other minor flooding, occurring as recently as 1979 and 1984, caused City officials to be concerned about the flood threat. The average annual benefits are \$8,326,800, all flood control, based on October 1998 price levels.

FISCAL YEAR 2006: Current year funds will be used to:

Continue Construction of South Channel	\$ 3,558,000
Planning, Engineering and Design	374,000
Construction Management	226,000
Total	\$ 4,158,000

FISCAL YEAR 2007: The requested amount will be applied as follows:

Continue Construction of South Channel	\$ 3,000,000
Planning, Engineering and Design	700,000
Construction Management	500,000
Total	\$ 4,200,000

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 Cost
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas.	\$ 1,600,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	600,000	
Pay 21 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.	\$11,600,000	\$139,000
Total Non-Federal Cost	\$13,800,000	\$139,000

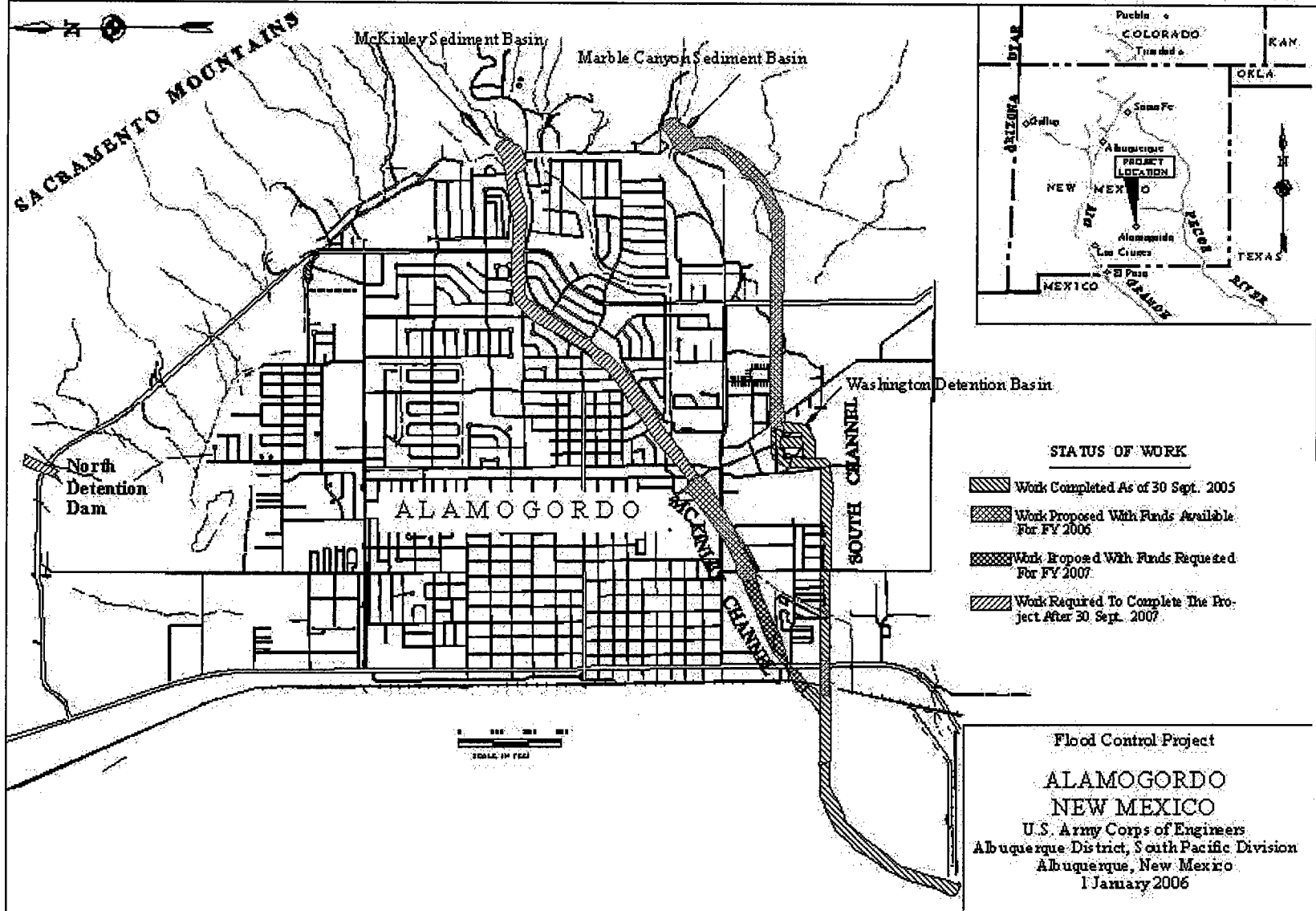
The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: The Project Cooperation Agreement with the city of Alamogordo, New Mexico, was executed in July 1999. The current non-Federal cost estimate of \$13,800,000, which includes a cash contribution of \$11,600,000 is the same as the non-Federal cost estimate noted in the Project Cooperation Agreement. 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. Their first payment for construction was received on 15 December 2000.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$41,400,000 (1 October 2005) is the same as the latest estimate presented to Congress (FY 2006).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Environmental Assessment and Finding of No Significant Impact (FONSI) for the current plan of improvement were signed in October 1998.

OTHER INFORMATION: The city of Alamogordo has been working with the U.S. Army Corps of Engineers and the New Mexico Congressional Delegation for over thirty years seeking a solution to the flood threat from the Sacramento Mountains located east of the City. Funds to initiate construction of the diversion channel were appropriated in Fiscal Year 1988. Work was discontinued in September 1988, without a contract being awarded, because the City could not give assurances of local cooperation due to the failure of a bond issue. To satisfy the concerns expressed by the City Commissioners and area residents, alternative solutions were investigated and outlined in an Interim Letter Report dated August 1992. The letter report recommended reevaluation of the project through the preparation of a General Reevaluation Report. The General Reevaluation Report addressed alternatives to the authorized Standard Project Flood protection plan. The new alternatives are being constructed in phases to accommodate the sponsor's financial plan. To that end, the City provided a letter of intent emphasizing their commitment and support for further analysis. The General Reevaluation Report was completed in April 1999. The General Reevaluation Report's recommended plan consists of construction of two new diversion channels and upgrading an existing earthen channel which will intercept flows from the Sacramento Mountains. Appurtenant project features include 5 sediment basins, 1 detention basin, and a stilling basin. The Local Sponsor requested that the U.S. Army Corps of Engineers consider a flood detention basin in place of the authorized channel to protect Alamogordo's north side from flooding. Section 105 of the Energy and Water Development Act, 2004 modifies the original project authority by authorizing and directing the Secretary "to construct a flood detention basin to protect the north side of the City of Alamogordo, New Mexico, from flooding. The flood detention basin shall be constructed to provide protection from a 100-year flood event. The project cost share for the flood detention basin shall be consistent with section 103(a) of the Water Resources Development Act of 1986, notwithstanding section 202(a) of the Water Resources Development Act of 1996." The Project Cooperation Agreement will be amended to incorporate this design modification.



6 February 2006

APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: American River Watershed, California (Continuing)

LOCATION: The project is located in Placer, El Dorado and Sacramento Counties. It is comprised of three principal streams, the North, Middle and South Forks of the American River, which flow westward into Folsom Lake, through the city of Sacramento and into the Sacramento River, and includes 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. Runoff from this basin flows through Folsom Reservoir and passes through Sacramento to the confluence with the Sacramento River.

DESCRIPTION: Recent evaluations indicated that the level of flood protection along much of the American River is less than 100-year level. 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, which will allow releases much earlier, consist of enlarging the eight existing river outlets; adding two new outlets; constructing a stilling basin downstream from the emergency spillway; and modifying the auxiliary spillway gates and dikes to raise the surcharge elevation four feet to allow for an additional 48,000 acre-feet of storage. The recent authorization to raise Folsom Dam seven feet makes the need for the surcharge component unnecessary. The authorized project to raise Folsom Dam includes raising related dikes and auxiliary dam, temperature shutter modifications, modifications to L. L. Anderson Dam/spillway on the middle fork of the American River, construction of a permanent bridge downstream of Folsom Dam, and ecosystem restoration projects. The Folsom Dam Modification project is currently undergoing reanalysis to provide functionally equivalent flood protection more cost effectively and for greater compatibility with related Folsom Dam safety work being pursued by the Bureau of Reclamation. Rather than enlarging the outlets and adding new outlets, other alternatives, including construction of an auxiliary spillway, are being considered. It is currently uncertain if Congressional project reauthorization will be required.

AUTHORIZATION: Water Resources Development Acts of 1996 and 1999; Energy and Water Development Appropriations Act, 2004; Energy and Water Development Appropriations Act, 2006, Sec. 134 (permanent bridge).

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

TOTAL BENEFIT-COST RATIO: 1.7 to 1 at 7 percent

INITIAL BENEFIT-COST RATIO: 1.95 to 1 at 7 percent

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 Water Resources Development Act of 1996 (WRDA 96). Updated benefits and costs are from the Second Addendum to the SIR approved October 2002 at October 2001 price levels. Folsom Dam Modifications – Initial benefits are from the American River Watershed Information paper dated August 1999 at October 1998 price levels, based on the Supplemental Information Report approved June 1996 at a 1995 price levels. Folsom Dam Raise – initial benefits are from the American River Watershed Long Term Study (Appendix B, Alternative 8) dated February 2002. Benefits and costs are associated with flood damage reduction only, and do not include the permanent bridge.

SUMMARIZED FINANCIAL DATA			STATUS (1 JAN 2006)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Common Features					
Estimated Federal Cost		\$178,300,000	WRDA 96 Features	70	TBD
Estimated Non-Federal Cost		59,100,000	WRDA 99 Features	10	TBD
Cash Contribution	\$45,900,000		Entire Project	50	TBD
Other Costs	13,200,000				
Total Common Features		\$237,400,000			
Folsom Dam Modifications					
Estimated Federal Cost		\$149,200,000	Entire Project	2	TBD
Estimated Non-Federal Cost		80,300,000			
Cash Contribution	\$80,300,000				
Other Costs	0				
Total Folsom Dam Modifications		\$229,500,000 1/			
Folsom Dam Raise					
Estimated Federal Costs		\$185,400,000	Entire Project	0	TBD
Estimated Non-Federal Costs		98,600,000			
Cash Contribution	\$93,660,000				
Other Costs	4,940,000				
Total Folsom Dam Raise		\$284,000,000			
Folsom Bridge					
Estimated Federal Costs		\$ 66,900,000 2/			
Estimated Non-Federal Costs		37,500,000			
Cash Contribution	\$15,500,000				
Other Costs	22,000,000				
Total Folsom Bridge		\$104,400,000			

1/ Reflects maximum allowable cost in accordance with Section 902 limits.

2/ Includes \$37,500,000 for permanent bridge not subject to cost sharing requirements with non-Federal interests.

SUMMARIZED FINANCIAL DATA (cont'd)

Project Summary		
Estimated Federal Costs		\$579,800,000
Estimated Non-Federal Costs		275,500,000
Cash Contribution	\$235,360,000	
Other Costs	40,140,000	
Total Estimated Project Costs		\$855,300,000

ACCUM
PCT OF EST
FED COST

PHYSICAL DATA

Allocations to 30 September 2003	\$127,420,000	
Allocations for FY 2004	6,987,000	
Allocations for FY 2005	19,613,000	
Conference Allowance for FY 2006	28,960,000	
Allocation for FY 2006	28,670,000 1/	
Allocations through FY 2006	182,690,000	31
Allocation Requested for FY 2007	46,800,000	39
Balance to Complete after FY 2007	\$350,310,000	

1/ Reflects rescission of \$290,000.

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)
 - Modify 4.4 miles of American River levees (WRDA 96)
 - Modify 12.1 miles of Sacramento River levees (WRDA 96)
 - Modify 10 miles of Natomas Cross Canal levees (WRDA 99)

Authorized FOLSOM DAM MODIFICATIONS –

- Enlarge eight existing river outlets
- Construct two new outlets
- Modify existing stilling basin

Authorized FOLSOM DAM RAISE -

- Raise Folsom Dam, wing walls & dikes
- Modify LL Anderson Dam spillway
- Construct Bridge
- Accomplish ecosystem restoration

JUSTIFICATION: This flood and storm damage reduction 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. 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 330,000 residents. Damages could range from \$7 billion to \$16 billion, depending on the magnitude of the event. The Common Features project, consisting of levee improvements along the American and Sacramento River 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. With completion of construction features at key sites in FY2004, the levees are designed, constructed, and certified to convey the 100-year event. Average annual benefits for the Common Features portion amount to \$42,300,000, all flood control at October 2001 price levels. The authorized Folsom Dam Modifications project would enlarge eight existing river outlets, construct two new outlets and modify the existing stilling basin. This would further reduce the risk of flood damage to a 1 in 140 chance in any one year. Average annual benefits amount to \$34,900,000, all flood control, at October 2004 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 \$20,100,000, all flood control, at October 2004 price levels.

FISCAL YEAR 2006: Current year funds will be applied as follows:

Folsom Dam Modifications	
Complete Elevator Upgrade/Emergency Generator Contract	\$ 450,000
Complete Staging Area Contract	1,400,000
Engineering and Design	7,424,000
Construction Management	185,000
 Total Folsom Mods	 \$ 9,459,000
 Folsom Dam Raise	
Continue Engineering and Design	\$ 4,950,000
 Total Folsom Dam Raise	 \$ 4,950,000
 Folsom Bridge	
Bridge Construction	\$ 5,000,000
Engineering and Design	4,900,000
 Folsom Bridge	 \$ 9,900,000

FISCAL YEAR 2006 (Cont.):

Common Features	
Construction of Slurry Walls and Floodwalls	\$ 3,229,000
Engineering and Design	932,000
Construction Management	200,000
Total Common Features	\$ 4,361,000
Grand Total, American River Watershed	\$28,670,000

FISCAL YEAR 2007: The requested amount will be applied as follows:

Folsom Dam Modifications	
Engineering and Design	\$ 6,000,000
Total Folsom Mods	\$ 6,000,000
Folsom Dam Raise	
Continue Engineering and Design	\$ 8,400,000
Total Folsom Dam Raise	\$ 8,400,000
Folsom Bridge	
Bridge Construction	\$12,500,000
Engineering and Design	1,000,000
Construction Management	1,500,000
Total Folsom Bridge	\$15,000,000
Common Features	
Construction of Slurry Walls and Floodwalls	\$15,400,000
Engineering and Design	1,000,000
Construction Management	1,000,000
Total Common Features	\$17,400,000
Grand Total, American River Watershed	\$46,800,000

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.

	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Requirements of Local Cooperation:		
Common Features		
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas.	\$12,985,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	215,000	
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.	45,900,000	\$53,000
Total Common Features Non-Federal Costs	\$59,100,000	\$53,000
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.	\$80,300,000	\$60,000 3/
Total Folsom Dam Modifications Non-Federal Costs	\$80,300,000	\$60,000 3/

3/ The operation and maintenance (O&M) would continue to be performed by the Bureau of Reclamation. An initial cost-sharing agreement has been negotiated between the Sacramento Area Flood Control Agency and the Bureau of Reclamation 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.

NON-FEDERAL COSTS (cont'd)

	Payments During Construction and Reimbursements	Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Folsom Dam Raise – Raise Component		
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas.	\$ 2,136,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	2,804,000	
Pay 33 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.	82,585,000	\$293,000 4/
Pay 32 percent of the costs allocated to ecosystem restoration to bring non-Federal share to 35 percent.	11,075,000	
Total Folsom Dam Raise Component	\$98,600,000	
Folsom Dam Raise – Bridge Component		
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas (City of Folsom).	\$ 6,576 000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project (City of Folsom).	4,000,000	
City of Folsom's share of costs associated with bridge construction .	11,424,000	
Pay 21 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.	15,500,000	

NON-FEDERAL COSTS (cont'd)

	Payments During Construction and Reimbursements	Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Total Folsom Bridge Component	\$37,500,000	
Total Folsom Dam Raise (including Bridge) Non-Federal Costs	\$129,600,000	\$293,000 4/
Total American River Watershed Non-Federal Costs	\$269,000,000	\$406,000

4/ The operation and maintenance (O&M) would continue to be performed by the Bureau of Reclamation. An initial cost-sharing agreement would be negotiated between the Sacramento Area Flood Control Agency and the Bureau of Reclamation to pay the portion of O&M costs related to the new flood control features.

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

STATUS OF LOCAL COOPERATION: The California State Reclamation Board and the Sacramento Area Flood Control Agency (SAFCA) are the non-Federal sponsors for the Common Features and Folsom Dam Modifications. The Project Cooperation Agreement (PCA) for the Common Features was executed in July 1998 for implementation of features authorized by WRDA 1996. On 12 September 2001, the Reclamation Board and SAFCA agreed to cost share the increase in cost to the then authorized maximum project cost of \$120.6 million. The non-Federal sponsor has indicated it is financially capable and willing to contribute the increased non-Federal share of the costs. The PCA for the Folsom Dam Modifications was executed on 30 March 2004. The California State Reclamation Board, SAFCA, Placer County Water Agency (LL Anderson Dam component) and the city of Folsom (Bridge component) are the non-Federal sponsors for the Folsom dam Raise. That PCA is scheduled for execution in March 2008. The non-Federal sponsors are financially capable and willing to contribute the non-Federal share.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$579,800,000 is an increase of \$29,200,000 from the latest estimate (\$550,600,000) presented to Congress (FY 2006). This change includes the following:

Item	Amount
Price Escalation or De-escalation on Construction Features	\$ 5,700,000
Authorized Modifications	23,500,000
Total	\$ 29,200,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: Folsom Dam Raise - A Supplemental Environmental Impact Statement/Environmental Impact Report (SEIS/EIR) was filed with the Environmental Protection Agency on 8 March 1996 for the American River Watershed Project. An Environmental Assessment was completed and published in the American River Watershed, California (Folsom Mods) Interim Limited Reevaluation Report (LRR) dated August 2001. The Finding of No Significant Impact (FONSI) was signed 16 August 2001. The final LRR dated November 2003 replaces previous interim LRRs and resulted in no change in the 16 August 2001 FONSI. An SEIS/EIR for the changes to the dam safety facet is under development. The Record of Decision is scheduled for May 2007.

Folsom Bridge – An SEIS/SEIR is being prepared to address the change in the Bridge component from a temporary to a permanent bridge. The Record of Decision is scheduled for August 2006.

OTHER INFORMATION: Common Features - Funds used to initiate preconstruction engineering and design of the common elements were allocated in FY 1996.

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. WRDA 1996 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 1999 as part of the overall project. The cost of slurry wall construction authorized by WRDA 1996 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 1996 and WRDA 1999 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 the Energy and Water Development Appropriations Act, 2004 increased the authorized first cost to \$205 million. For implementation of the Natomas Basin features a separate decision document/PAC is being prepared to address the previously unknown levee under-seepage problem along the Sacramento River and the associated increased cost. A General Re-evaluation Report is being prepared.

Construction of the first contract on the lower American River levees was initiated in July 1998. Relief well construction at Pioneer Reservoir and utility cutoffs at Miller Park is scheduled to complete in summer 2006. Construction is scheduled to begin in 2006 on the Pocket geotech sites (underseepage). Fish and wildlife mitigation costs are currently estimated at \$1,780,000.

Folsom Dam Modifications – Funds used to initiate preconstruction engineering and design on the Folsom 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 Modification Plan described in the 1996 SIR. The 1996 SIR as modified by SAFCA Outlet Report was the basis for the project authorized under the Water Resources Development Act of 1999. The LRR, dated November 2003, documents the 1996 SIR plan as modified by the SAFCA Outlet Report.

Fish and wildlife mitigation costs are currently not expected to be significant.

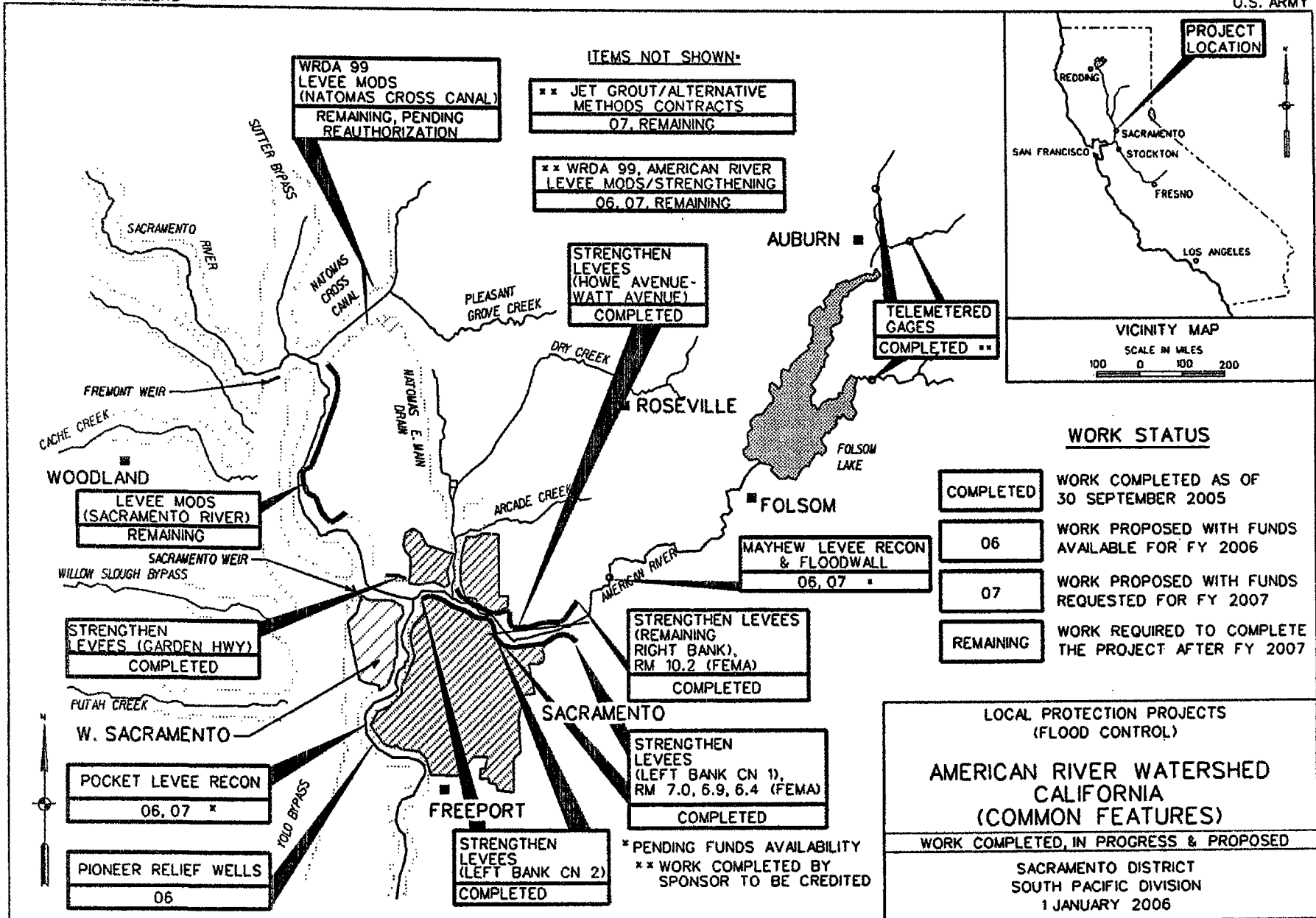
Costs and benefits shown are based on the final LRR, dated November 2003. Average annual costs and flood control benefits for the outlet works component were revised to \$15.6 million and \$34.9 million, respectively, based on October 2004 price levels.

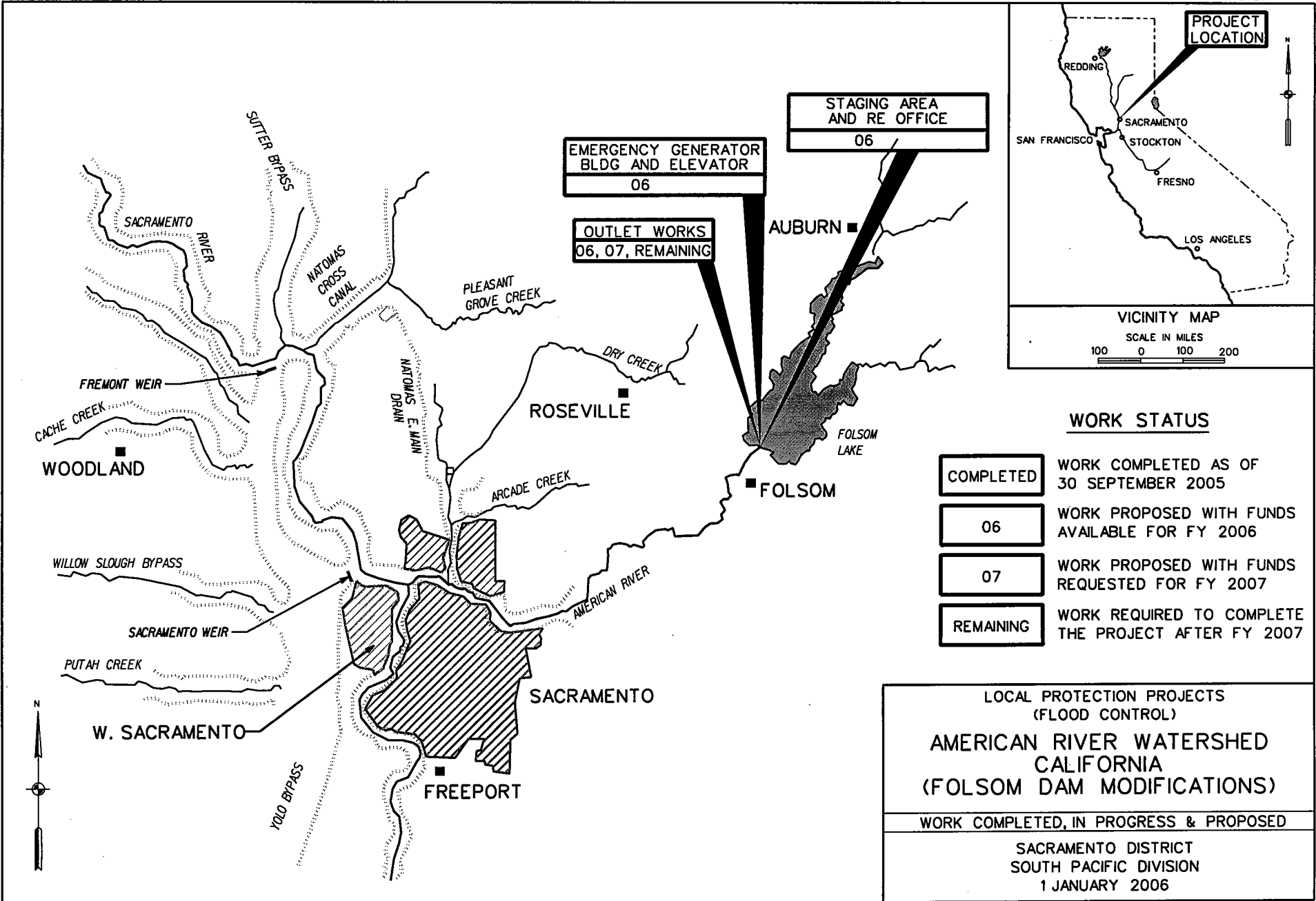
OTHER INFORMATION (cont'd)

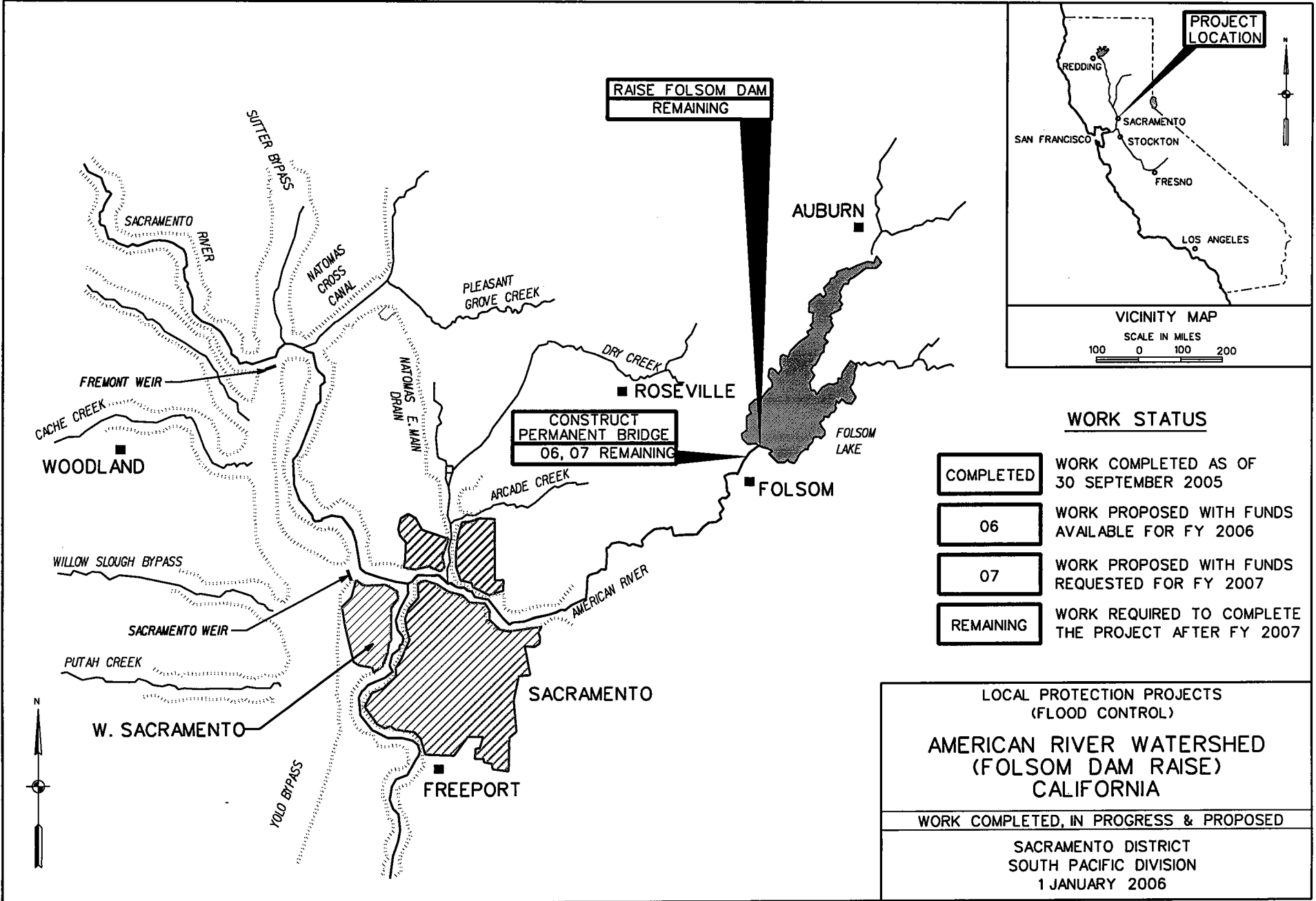
Recent information indicated that the project, as currently designed, would exceed the maximum authorized cost per Section 902 of WRDA 1986. Action is being taken to conduct engineering evaluations and develop an Engineering Documentation Report and Post Authorization Change (EDR/PAC) document recommending a functionally equivalent performance project, potentially involving an auxiliary spillway. This effort will continue in FY 07, and is tentatively. The EDR/PAC will be done in parallel with Project Alternative Solution Study activities with the U.S. Bureau of Reclamation in the evaluation of a combined Federal project addressing flood damage reduction improvements and dam safety needs at Folsom Dam.

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. Fish and wildlife mitigation costs are currently not expected to be significant.

Folsom Bridge - Total Project cost (including only the temporary bridge component) was authorized at \$257,300,000 in PL108-137, Section 128. Section 128 also modified the cost sharing of the permanent bridge feature and required status reports to Congress.







APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: Guadalupe River, California (Continuing)

LOCATION: The project is located in San Jose, Santa Clara County, California.

DESCRIPTION: The authorized plan consists of channel improvements on the Guadalupe River between Interstate Highways 880 and 280, a distance of approximately 2.6 miles with provisions for fish and wildlife mitigation as necessary. The project under construction is the Locally Preferred Plan (LPP). The non-Federal sponsor is responsible to pay 100 percent of the difference in cost between the LPP and the National Economic Development (NED) plan. (See OTHER INFORMATION)

AUTHORIZATION: Water Resources Development Act of 1986 and Energy and Water Development Appropriations Acts for 1990, 1992 and 2002.

REMAINING BENEFIT-REMAINING COST RATIO: 3.8 to 1 at 7 percent.

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

INITIAL BENEFIT-COST RATIO: 2.3 to 1 at 7 percent

BASIS OF BENEFIT-COST RATIO: Initial benefits are from the General Design Memorandum dated December 1991 at October 1991 price levels for the NED project. Current benefits are from the General Reevaluation Report (GRR) dated February 2001 at October 2000 price levels for the NED project. The GRR was approved in November 2001.

SUMMARIZED FINANCIAL DATA

		STATUS (1 JAN 2006)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	\$147,600,000	Entire Project	90	TBD
Estimated Non-Federal Cost	113,100,000			
Cash Contribution	\$ 16,900,000			
Other Costs	106,327,000			
Section 104 Credit	- 5,701,000			
Section 215 Credit	- 4,426,000			
Total Estimated Project Cost	\$260,700,000			

Division: South Pacific

District: Sacramento
6 February 2006

Guadalupe River, California

SUMMARIZED FINANCIAL DATA (Continued)

		ACCUM PCT OF EST FED COST	PHYSICAL DATA	
Allocations to 30 September 2003	\$ 95,173,000		Concrete channel	1,510 Feet
Allocations for FY 2004	27,500,000		Earth channel	27,055 Feet
Allocations for FY 2005	7,230,000		Box culverts (Bypass Channel)	2,535 Feet
Conference Allowance for FY 2006	5,600,000		Concrete gabions & mats	4,655 Feet
Allocation for FY 2006	5,544,000 ^{1/}		Excavated bench	6,250 Feet
Allocations through FY 2006	135,447,000	92	Gabion terraces	4,130 Feet
			Recreation trails	17,500 Feet
Allocation Requested for FY 2007	5,000,000	95	Recreation riverwalk	13,350 Feet
Balance to Complete after FY 2007	7,153,000		Concrete retaining wall	1,920 Feet

^{1/} Reflects rescission of \$56,000.

JUSTIFICATION: The Guadalupe River drains an area of about 160 square miles and its 100-year flood plain encompasses approximately 7,000 acres, including downtown San Jose, and consists of both residential and light industrial development. The 2004 population for the city of San Jose was estimated at 904,522 (August 2004). Flood producing storms have occurred fourteen times since 1945, the most recent in March 1995. The storm of record occurred in December 1955, inundating 8,300 acres and causing approximately \$1.3 million in damages in the Guadalupe River drainage basin. Damages from a 100-year flood under 1990 conditions and October 1999 prices would be approximately \$600 million (Final GRR February 2001). Flooding also occurred in the January 1995 storm (20-year event), where there was minor out-of-bank flooding in Reach 3. During the March 1995 storm (25-year event), there was substantial street flooding caused by out-of-bank flooding in Reach 3 and a lack of storm drain capacity. During both storms, the I-280/Route 87 freeway interchange was partially inundated, resulting in closure of Route 87. It is believed that project improvements at the I-880 bridge prevented extensive bridge foundation erosion. The project will provide 100-year flood protection to downtown San Jose, including approximately 1,020 commercial, industrial, and public structures, 3,270 private residences, four major traffic arteries, and the San Jose International Airport. Average annual benefits at October 2000 price levels are as follows:

Annual Benefits	Amount
Flood Damage Prevention	\$22,614,000
Recreation	3,171,000
Total	\$25,785,000

FISCAL YEAR 2006: Current year funds will be applied as follows:

Continue Construction of Channel Improvements	\$ 4,744,000
Engineering and Design	500,000
Construction Management	300,000
Total	\$ 5,544,000

FISCAL YEAR 2007: The requested amount will be applied as follows:

Continue Construction of Channel Improvements	\$ 4,100,000
Engineering During Construction	500,000
Construction Management	400,000
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 the non-Federal sponsor must comply with the requirements listed below (See OTHER INFORMATION):

	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 (\$5,701,000) for prior work (Section 104 of the WRDA 1986).	\$42,453,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary in the construction of the project.	53,747,000	
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.	12,570,000	\$1,592,000

Division: South Pacific

District: Sacramento
6 February 2006

Guadalupe River, California

Requirements of Local Cooperation (Continued)

	Payments During Construction and Reimbursements	Annual Operation Maintenance, Repair, Rehabilitation, and Replacement Costs
Pay the incremental construction costs for the locally preferred plan.	3,100,000	
Pay one-half of the separable costs allocated to recreation and bear all costs of operation, maintenance, repair, rehabilitation and replacement of recreation facilities.	1,230,000	1,033,000
Total Non-Federal Costs	\$113,100,000	\$2,625,000

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

STATUS OF LOCAL COOPERATION: The Santa Clara Valley Water District is the local sponsor for both the flood control portion and the recreation portion of this project. The Local Cooperation Agreements (LCA's) for each were executed 30 March 1992. The current non-Federal cost estimate of \$113,100,000, which includes a cash contribution of \$16,900,000, is an increase of \$40,300,000 from the non-Federal cost estimate of \$72,800,000 noted in the Local Cooperation Agreement, which included a cash contribution of \$12,200,000. This estimate reflects an update of the amendment to the LCA that was executed in April 2002. The sponsor agrees with current costs and continues to be financially able to support the project. The Santa Clara Valley Water District has applied for credit in the amount of \$28,400,000 for completed work under Section 104 of WRDA 1986. The Section 104 Credit Evaluation Report recommended \$5,701,000 and was reflected in the flood control LCA. Reimbursement of Section 104 credits was initiated in FY 1993 and was completed in FY 1994 after initiation of a majority of the project construction. The Section 215 Agreement, currently estimated at \$4,426,000, was approved in June 2000 and was executed in May 2001. The Santa Clara Valley Water District completed the work described in the Agreement in FY 2002.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$147,600,000 is an increase of \$1,700,000 from the latest estimate (\$145,900,000) presented to Congress (FY 2006). This change includes the following items:

Item	Amount
Post Contract Award and Other Estimating Adjustments	\$1,700,000
Total	\$1,700,000

Division: South Pacific

District: Sacramento
6 February 2006

Guadalupe River, California

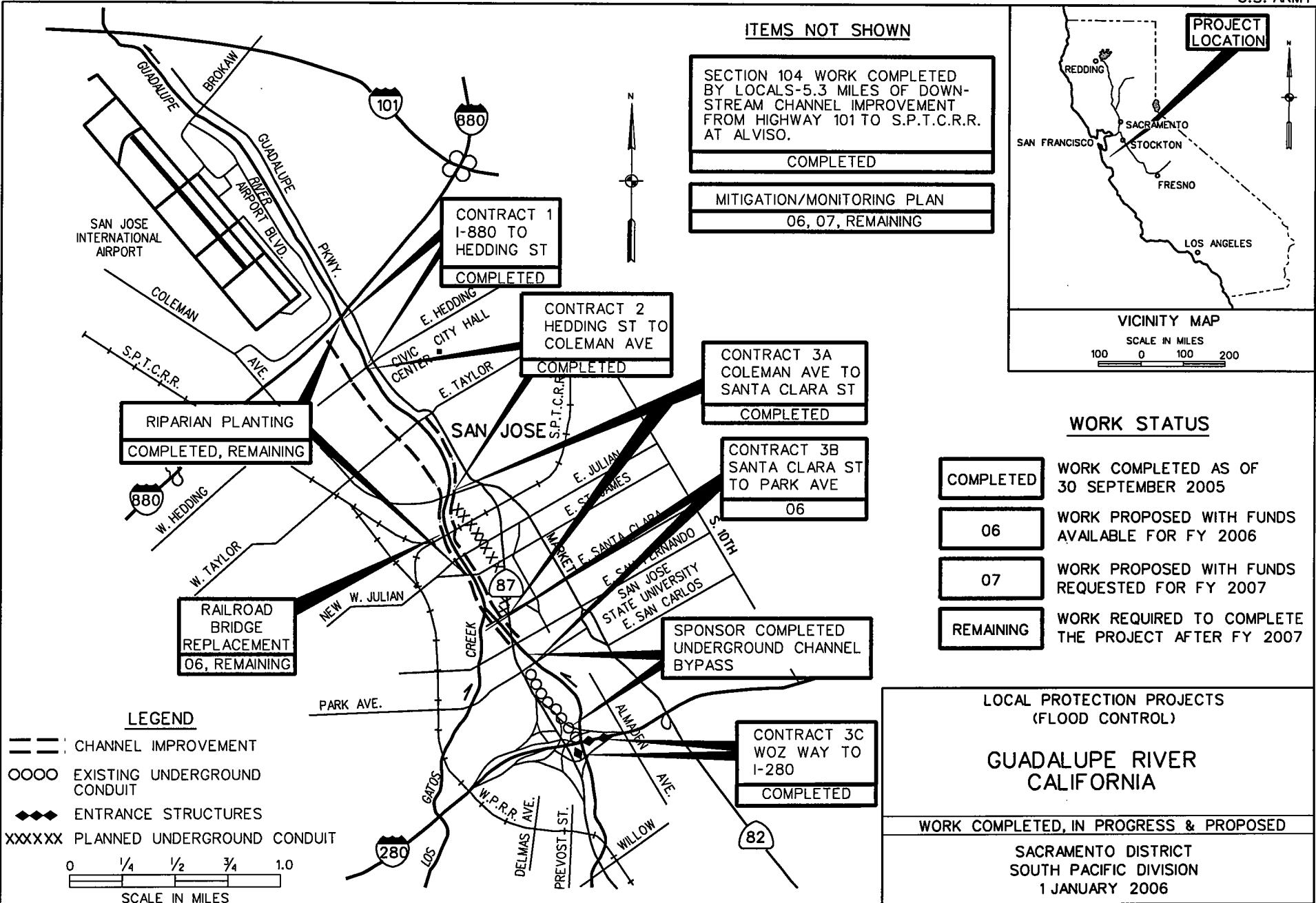
STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Final Environmental Impact Statement (FEIS) was filed in October 1986. Environmental Assessments were circulated for public review and comment on the changes to the Feasibility report and FEIS. Results of the review were included in the December 1991 General Design Memorandum (GDM) and the Record of Decision was filed with EPA on 12 February 1992. A Draft Supplemental EIS was submitted in July 2000. The Record of Decision was signed on 16 November 2001. The Final Supplemental EIS supporting the General Reevaluation Report (GRR) was approved on 19 November 2001.

OTHER INFORMATION: Funds to initiate preconstruction planning were appropriated in FY 1986 and funds to initiate construction were appropriated in FY 1990.

The Energy and Water Development Appropriations Act, 1990, directed the Secretary to construct the project notwithstanding Section 902 of the Water Resources Development Act of 1986.

The Energy and Water Development Appropriations Act, 1992, directed the Secretary to modify and construct the project in accordance with the December 1991 GDM. While the current plan being implemented differs slightly from the December 1991 GDM Plan, it is consistent with the Guadalupe River Park plan requested by the local sponsor and with cost sharing policy. The Locally Preferred Plan (LPP) is a locally acceptable engineering modification of the authorized plan presented in the July 1985 Feasibility Report/Environmental Impact Statement. It is also the basis for the larger, locally developed, Guadalupe River Park (GRP) Plan. The GRP is a major part of the City of San Jose's current redevelopment plan for the downtown area. The local sponsor, Santa Clara Valley Water District, has agreed to cost share the project in proportion to the National Economic Development Plan (NED), pay all incremental construction costs associated with the LPP, and one-half of the recreation costs.

A General Reevaluation Report (GRR) has been prepared to address impacts to endangered species and water quality. In lieu of widening the natural channel for Reach 3, a bypass channel was recommended to minimize the effects on water quality, endangered species and riparian vegetation. The originally authorized plan could not fully mitigate these impacts. Updated benefits and added costs for required mitigation, lands and relocations were documented in the GRR approved in November 2001. Based on findings of the GRR, Section 106 of the Energy and Water Development Appropriations Act for 2002 re-authorized the project at a total cost of \$226,800,000.

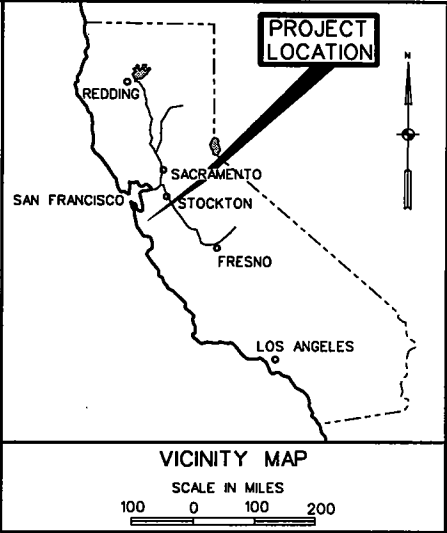


ITEMS NOT SHOWN

SECTION 104 WORK COMPLETED BY LOCALS-5.3 MILES OF DOWN-STREAM CHANNEL IMPROVEMENT FROM HIGHWAY 101 TO S.P.T.C.R.R. AT ALVISO.

COMPLETED

MITIGATION/MONITORING PLAN 06, 07, REMAINING



WORK STATUS

COMPLETED	WORK COMPLETED AS OF 30 SEPTEMBER 2005
06	WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2006
07	WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2007
REMAINING	WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2007

LOCAL PROTECTION PROJECTS (FLOOD CONTROL)

GUADALUPE RIVER CALIFORNIA

WORK COMPLETED, IN PROGRESS & PROPOSED

SACRAMENTO DISTRICT
SOUTH PACIFIC DIVISION
1 JANUARY 2006

APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: Los Angeles County Drainage Area, California (Continuing)

LOCATION: The project covers a 2,000 square-mile area within the county of Los Angeles and includes portions of the metropolitan region of the city of Los Angeles.

DESCRIPTION: The project consists of upgrading the existing system, raising and converting channel walls of the Rio Hondo and lower Los Angeles River channels, and modifying bridges.

AUTHORIZATION: Water Resources Development Act of 1990.

REMAINING BENEFIT - REMAINING COST RATIO: 3.6 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 3.5 to 1 at 7 percent.

INITIAL BENEFIT-COST RATIO: 3.1 to 1 at 7 percent.

BASIS OF BENEFIT-COST RATIO: Benefits are based on the Final Feasibility Report revised in June 1992, at October 1991 price levels.

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST	PHYSICAL STATUS (1 JAN 2006)	PERCENT COMPLETE	COMPLETION SCHEDULE
Estimated Federal Cost	\$158,000,000		Compton Creek	100	December 1997
Estimated Non-Federal Cost	52,670,000		Channel Improvements	100	September 2001
Cash Contributions	\$46,170,000		(Lower LA and Rio		
Other Cost	6,500,000		Hondo Rivers)		
Total Estimated Project Cost	\$210,670,000		Bridge Modifications	100	September 2001
			Close-out & Reconciliation	0	September 2007
			Entire Project	100	September 2001
Allocations to 30 September 2003	\$152,090,000				
Allocations for FY 2004	235,000				
Allocations for FY 2005	111,000				
Conference Allowance for FY 2006	0				
Allocation for FY 2006	0				
Allocations through FY 2006	152,436,000	96			
Allocation Requested for FY 2007	5,564,000	100			

Division: South Pacific

District: Los Angeles
6 February 2006

Los Angeles County Drainage Area, CA

SUMMARIZED FINANCIAL DATA (Continued)

Programmed Balance to Complete after FY2007 0

PHYSICAL DATA

CHANNELS

Parapet walls - approximately 21 miles		Armoring back slopes of levees
Rio Hondo, Whittier Narrows Dam to Los Angeles River	- 9 miles	Rio Hondo
Los Angeles River, Rio Hondo to ocean	-12 miles	Compton Creek
Converting trapezoidal channel to rectangular		Los Angeles (Atlantic Boulevard to ocean)
channel - approximately 1.2 miles Rio Hondo	-.7 miles	
Los Angeles River	-.5 miles	BRIDGES - Modify 18 and raise 8 on the
		Los Angeles River

JUSTIFICATION: The Los Angeles County Drainage Area, current population of over 9 million, is partially protected by an urban flood control system which includes Corps flood control structures consisting of 5 major reservoirs, 22 debris basins, and 470 miles of channel improvements. The existing system, protecting the second largest urban metropolitan area in the United States, has prevented over \$4.4 billion in damages since construction. However, the flood of 1969 in Los Angeles County caused widespread damages of over \$12 million, \$64.5 million at 2005 prices. As urbanization of the basin has grown over the past 40 years, the ability of the existing systems to provide design levels of protection has diminished. The February-March 1980 floods exceeded the capacity of the channel in the upper reaches of the Los Angeles River and nearly overtopped the levee in the lower Los Angeles River near the city of Long Beach. A breach in the levee could have induced catastrophic damages to residential, commercial, and industrial properties in Long Beach. Studies to date indicate that a 100-year flood would impact 52,000 acres, with damages totaling about \$2.35 billion. Portions of the existing system for reaches above the channels cannot contain a 50-year flood event. The construction that has been completed corrected all of the listed problems. All that remains is the reconciliation of project cost sharing, contract modifications and close out of the project.

FISCAL YEAR 2006: No activity.

FISCAL YEAR 2007: The requested amount will be applied as follows:

Complete construction	\$1,400,000
Planning, Engineering and Design	3,600,000
Construction Management	564,000
Total	\$5,564,000

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	Annual Operation, Maintenance, Repair, Rehabilitation and Replacement Costs
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas.	\$ 4,100,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	2,400,000	
Pay 22 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 ability to pay and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	46,170,000	\$20,000
Total Non-Federal Costs	\$52,670,000	\$20,000

The non-Federal sponsor has also agreed to make all required payments concurrently with reconciliation, contract modifications, audits and storm management plan.

STATUS OF LOCAL COOPERATION: In February 1992, the Los Angeles County Department of Public Works, the local sponsor, affirmed its support and willingness to financially participate in the construction of the project at a level consistent with the current cost-sharing policy for construction. The Project Cooperation Agreement was executed 7 August 1995. The current non-federal cost estimate of \$52,670,000, which includes a cash contribution of \$46,170,000, is a decrease of \$55,330,000 from the non-federal cost estimate of \$108,000,000 noted in PCA, which included a cash contribution of \$15,600,000. The increase in the cash contribution is a result of a decrease in costs for lands and relocations requiring an additional cash contribution to bring the total non-federal share of flood control costs to 25 percent. The sponsor has indicated willingness and capability to contribute their share of increase.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$158,000,000 is a increase of \$8,000,000 from the latest estimate (\$150,000,000) presented to Congress (FY 2000). This change includes the following items.

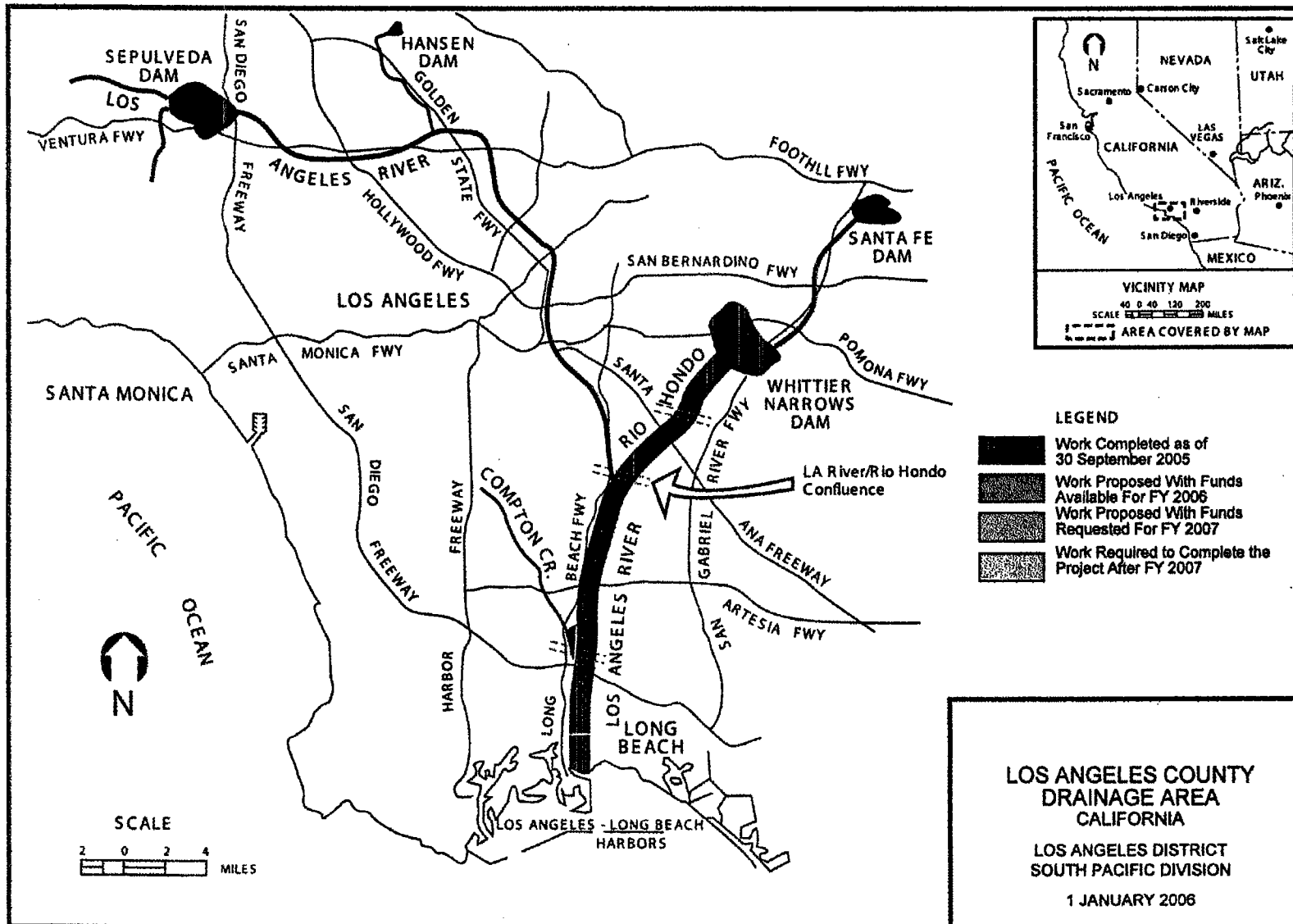
Item	Amount
Post Contract Award and Other Estimating Adjustments	\$8,000,000
Total	\$8,000,000)

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Environmental Impact Statement (EIS) was publicly reviewed and submitted as part of the Final Feasibility Report on 30 June 1992. The Record of Decision (ROD) was recorded by the Assistant Secretary of Army for Civil Works on 19 July 1995. The local sponsor completed the Environmental Impact Report in April 1995 which met California Environmental Quality Act requirements.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1992, and funds to initiate construction were appropriated in FY 1995.

The Federal Emergency Management Administration (FEMA) imposed mandatory flood insurance to residents within the area of Los Angeles County Drainage Area project causing financial hardship. At the request of the sponsor, the Corps of Engineers conducted a study to investigate what, if any, incremental protection is provided as the project is incrementally constructed. The study concluded that once certain key elements of the project were constructed, a large area would be protected against a 100-yr flood. Specifically, this area is the current 100-year flood plain along both sides of the Los Angeles River below Compton Creek on the west side, and below the Metropolitan Transit Authority bridge on the east side.

In a letter dated 19 September 1999, FEMA responded that once construction of key elements of the projects were completed, a revision to the mandatory flood insurance would be warranted. Construction of the critical elements was completed in December 1999. A joint inspection visit performed by the Corps of Engineers and County of Los Angeles on 4 January 2000 determined that adequate protection was in place, lacking a few deficiencies that could be completed within two weeks. The sponsor submitted a "pre-certification" letter to FEMA on 7 January 2000. The final field inspection was completed and the final certification was submitted to FEMA. FEMA has lifted the mandatory flood insurance for the surrounding area.



APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: Napa River, California (Continuing)

LOCATION: The project is located in the city and county of Napa, California. The Napa River drainage basin, comprising 426 square miles, is just north of San Pablo Bay and approximately 40 miles northeast of San Francisco, California.

DESCRIPTION: The project consists of channel modifications to provide the project area with 100-year level of flood protection from Napa River and Napa Creek. Channel modifications include overbank excavation, vertical walls, floodwalls, levees, bridges, pumping stations, and flowage easements. The project also includes recreation trails and incidental ecosystem restoration.

AUTHORIZATION: Flood Control Acts of 1965 and 1976.

REMAINING BENEFIT-REMAINING COST RATIO: 3.0 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: .94 to 1 at 7 percent.

INITIAL BENEFIT-COST RATIO: 1.3 to 1 at 7 percent (FY 2000).

BASIS OF BENEFIT-COST RATIO: Benefits are from the latest available evaluation in the Final Supplemental General Design Memorandum, October 1998, at 1 October 1997 price levels. Incidental ecosystem restoration benefits are excluded in calculating the benefit cost ratios. The Final Supplemental General Design Memorandum was approved in May 1999.

SUMMARIZED FINANCIAL DATA		STATUS (1 JAN 2006)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost				
	\$136,300,000	Entire Project	57	TBD
Estimated Non-Federal Cost				
Cash Contributions	\$ 14,066,000			
Other Costs	138,314,000			
Reimbursements	-16,380,000			
Total Estimated Project Cost	\$272,300,000			

Division: South Pacific

District: Sacramento
6 February 2006

Napa River, California

SUMMARIZED FINANCIAL DATA (Continued)

		ACCUM PCT OF EST FED COST	PHYSICAL DATA
Allocations to 30 September 2003	\$37,977,000		Channel Modifications along Napa River from Highway 29 to Trancas Street - 6.9 miles:
Allocations for FY 2004	13,234,000		excavation - 1.63 Mil cy
Allocations for FY 2005	11,964,000		widening - 16,900 ft
Conference Allowance for FY 2006	12,000,000		vertical walls - 1,600 ft
Allocation for FY 2006	11,880,000 ^{1/}		floodwalls - 13,200 ft
Allocations through FY 2006	75,055,000	55	levees - 9,900 ft
Allocation Requested for FY 2007	9,000,000	62	training dikes - 7,000 ft
Balance to Complete after FY 2007	52,245,000		bypass channel - 1,300 ft
			Channel Modifications along Napa Creek Main Street to Earl Street - 4,000 ft:
			excavation length - 1,100 ft
			Pumping stations 3 each
			Bridges
			roadway 6 each
			pedestrian 3 each
			Recreation Trails - 19,000 ft
			Flowage easement - 418.2 acres
			Ecosystem Restoration - 60 acres

1/ Reflects rescission of \$120,000.

JUSTIFICATION: The Napa River Basin, ranging from tidal marshes to mountainous terrain, is subject to severe winter storms and frequent flooding. In the lower reach of the river, flood conditions are aggravated by high tides from San Pablo Bay and local runoff. The population in the city of Napa was approximately 76,000 in January 2004. Many residential, business and industrial buildings are located by the Napa River within the City limits. Excluding public facilities, the present value of damageable property within the project floodplain is over \$500 million. Flooding in the Napa area has occurred in 1955, 1958, 1963, 1965, 1986 (flood of record) and 1995. The 1986 flood (estimated to be a 55-year event) resulted in 3 people dead, 27 injured, an estimated \$50-\$100 million in property damages throughout Napa County, and the evacuation of approximately 3,500 residents. The 1986 flood crested at 30.2 feet. The predicted crest for a 100 year flood is 32 feet. During the January 1995 flood (estimated to be a 50-year event) the Napa River crested at about 27 feet, and during the March 1995 flood the river crested near 31 feet. Although the March 1995 river crest was higher than the 1986 flood, fewer damages were incurred during the 1995 flood due to a rain stoppage three to four hours before the crest arrived, allowing the tributaries to partially subside. The damage assessments for the January and March 1995 floods report property damages of \$10 million and \$75 million, respectively. The floods resulted in 227 businesses and 843 residences being damaged county-wide. The project will provide 100-year level of flood protection. Average annual benefits (October 1997 price levels) are as follows:

Division: South Pacific

District: Sacramento
6 February 2006

Napa River, California

JUSTIFICATION (Cont.):

Annual Benefits	Amount
Flood Damage Prevention	\$15,453,000
Recreation	310,000
Ecosystem Restoration	3,293,000
Total	\$19,056,000

FISCAL YEAR 2006: Current year funds will be applied as follows:

Continue Contract 2W Hatt to First/Imola to Hatt	\$ 9,400,000
Engineering and Design During Construction	1,800,000
Construction Management	680,000
Total	\$11,880,000

FISCAL YEAR 2007: The requested amount will be applied as follows:

Complete Contract 2W Hatt to First/Imola to Hatt	7,000,000
Engineering and Design During Construction	1,530,000
Construction Management	470,000
Total	\$ 9,000,000

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 borrow and excavated or dredged material disposal areas.	\$ 85,327,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project. (Includes section 215 reimbursement for railroad bridge.)	52,987,000	
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.	13,500,000	\$348,000
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.	566,000	43,000
Federal reimbursement to non-Federal sponsor for non-Federal costs allocated to flood control and recreation in excess of Federal costs.	-16,380,000	
Total Non-Federal Costs	\$136,000,000	\$391,000

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

STATUS OF LOCAL COOPERATION: The Napa County Flood Control and Water Conservation District is the local sponsor for both the flood control and recreation purposes of the project. In June 1999, the Napa County Flood Control and Water Conservation District indicated support for the project and intent to cost share both project purposes. In March 1998, the Napa County electorate passed "Measure A" which will fund the non-Federal share of the project. The Project Cooperation Agreement was executed in February 2000. The current non-Federal cost estimate of \$136,000,000, which includes a cash contribution of \$14,066,000, is an increase of \$45,000,000 from the non-Federal cost estimate of \$91,000,000 noted in the Project Cooperation Agreement, which includes a cash contribution of \$9,345,000. The sponsor agrees with current costs and continues to be financially able to support the project.

A Section 215 Agreement for construction of a portion of the authorized project by the local sponsor was executed on 16 January 2002. It limits Federal credit/reimbursement to no more than \$5,000,000, or 1 percent of total project costs, whichever is greater. In FY 2002, the local sponsor completed construction for a total cost of \$1.1 million. Initial reimbursement for \$500,000 was made 30 September 2003.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$136,300,000 is an increase of \$8,500,000 from the latest estimate (\$127,800,000) presented to Congress (FY 2006). This charge includes the following items.

Item	Amount
Price Escalation on Construction Features	\$ 7,080,000
Post Contract Award and Other Estimating Adjustments	1,420,000
Total	\$ 8,500,000

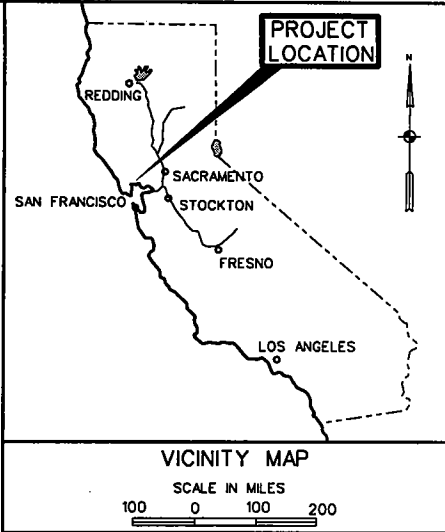
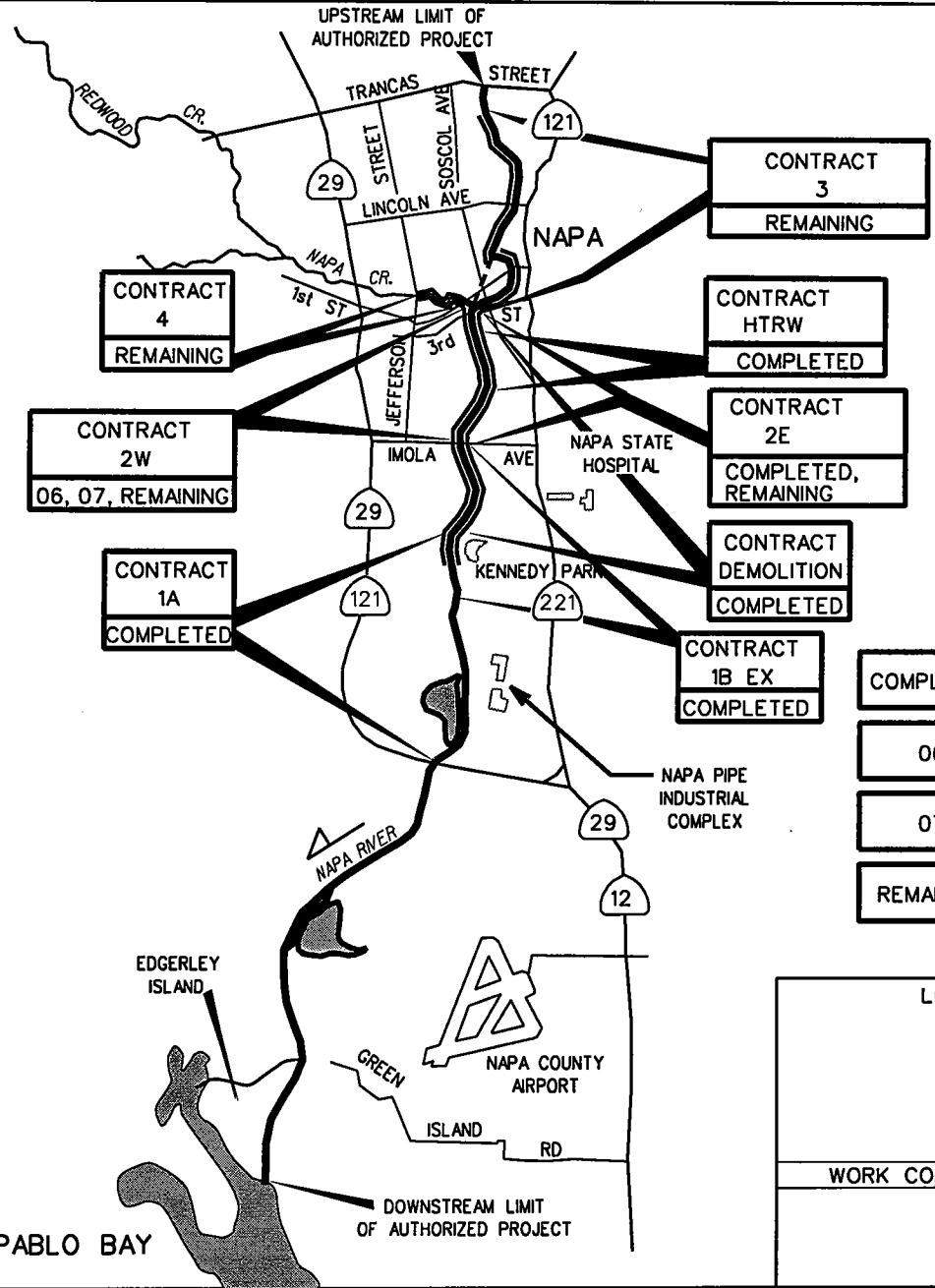
STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final EIS was filed with EPA on 18 December 1997. The Record of Decision was signed on 9 June 1999.

OTHER INFORMATION: Funds to resume preconstruction engineering and design were appropriated in Fiscal Year 1989. Funds to initiate construction were appropriated in Fiscal Year 2000.

On 31 December 2005, the City of Napa experienced flooding from both the Napa River and Napa Creek. The flood level experienced was second only to the record flood of 1986. Damages to the city, although high at an estimated \$80-120 million, did not reach the flood stages experienced in 1986. Partially completed project features (flood terraces and raised bridges) are credited with reducing the flood damages. Damage to the current contracts and previously constructed project features are anticipated to be minimal.

ITEMS NOT SHOWN

CULTURAL RESOURCE MITIGATION
 COMPLETED, 06,
 07, REMAINING



WORK STATUS

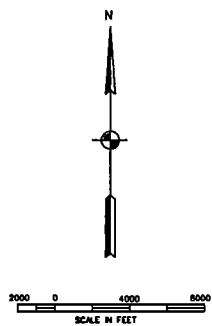
COMPLETED	WORK COMPLETED AS OF 30 SEPTEMBER 2005
06	WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2006
07	WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2007
REMAINING	WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2007

LOCAL PROTECTION PROJECTS (FLOOD CONTROL)

NAPA RIVER CALIFORNIA

WORK COMPLETED, IN PROGRESS & PROPOSED

SACRAMENTO DISTRICT
 SOUTH PACIFIC DIVISION
 1 JANUARY 2006



SAN PABLO BAY

1 August 2005

02 August 2005
 \\gold\civcod\ppmd_maps\2007\Napa River.fn

APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

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 to the head of Elephant Butte Reservoir.

DESCRIPTION: The plan of improvement consists of the reconstruction of 45 miles of existing spoil bank levee which separates the Rio Grande low flow conveyance channel from the cleared floodway, replacement of the railroad bridge at San Marcial, and the acquisition of the 2,000 plus acre Tiffany Area as a sediment control basin. The level of protection is a discharge of 46,000 c.f.s. at Socorro, New Mexico, corresponding to an exceedance interval of 100 years.

AUTHORIZATION: Flood Control Act of 1948 and Water Resources Development Act of 1992.

REMAINING BENEFIT - REMAINING COST RATIO: 3.2 to 1 at 7 percent.

TOTAL BENEFIT - COST RATIO: 2.9 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.

SUMMARIZED FINANCIAL DATA		ACCUM. PCT. OF EST. FED. COST	STATUS (1 Jan 2006)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		\$62,300,000	Entire Project	0	TBD
Estimated Non-Federal Cost		8,900,000			
Cash Contribution	\$8,190,000				
Other Costs	710,000				
Total Estimated Project Cost		\$71,200,000			
Allocations to 30 September 2003		\$ 5,942,000			
Allocations for FY 2004		488,000			
Allocations for FY 2005		548,000			
Conference Allowance for FY 2006		700,000			
Allocation for FY 2006		693,000 ^{1/}			
Allocations through FY 2006		7,671,000	12		

PHYSICAL DATA

Levees - 45 Miles
 Railroad Bridge
 Sediment control basin

^{1/} Reflects \$7,000 reduction assigned as rescission.

SUMMARIZED FINANCIAL DATA (continued)

ACCUM.
PCT. OF EST.
FED. COST

Allocation Requested for FY 2007	\$ 600,000	13
Programmed Balance to Complete after FY 2007	54,029,000	

JUSTIFICATION: The project will provide protection from the 100-year flood. 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 \$265,000,000. The last major flood event occurred in 1965 with minor flooding in 1967 and 1979. The value of property within the 100-year flood plain is \$338,000,000. Residential property within the 100-year flood plain is worth \$44,000,000. The Rio Grande low-flow conveyance channel, built by the U.S. Bureau of Reclamation in 1961, is the primary damageable property in the project area. Cost to construct the channel at October 2005 price levels is \$125,000,000. 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 \$118,000,000. 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 \$257,000,000. Average annual damages without the project are \$13,386,000 and with the project are \$1,088,000. Average annual benefits are \$12,298,000, all flood control, based on October 1993 price levels. The project avoids long and short term impacts associated with the destruction or modification of wetlands; in fact, the project protects existing wetlands at Bosque del Apache National Wildlife Refuge. Replacement of the San Marcial railroad bridge in accordance with the United States Fish and Wildlife Service biological opinion, will improve the endangered species habitat, sediment transport, water operations and interstate water deliveries.

FISCAL YEAR 2006: Current year funds will be used to:

Planning, Engineering and Design for San Marcial Bridge	\$693,000
Total	\$693,000

FISCAL YEAR 2007: The requested amount will be applied as follows:

Planning, Engineering and Design for San Marcial Bridge	\$600,000
Total	\$600,000

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 During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	\$ 710,000	
Pay 8.1 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 12.5 percent, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	8,190,000	\$220,000
Total Non-Federal Cost	\$ 8,900,000	\$220,000

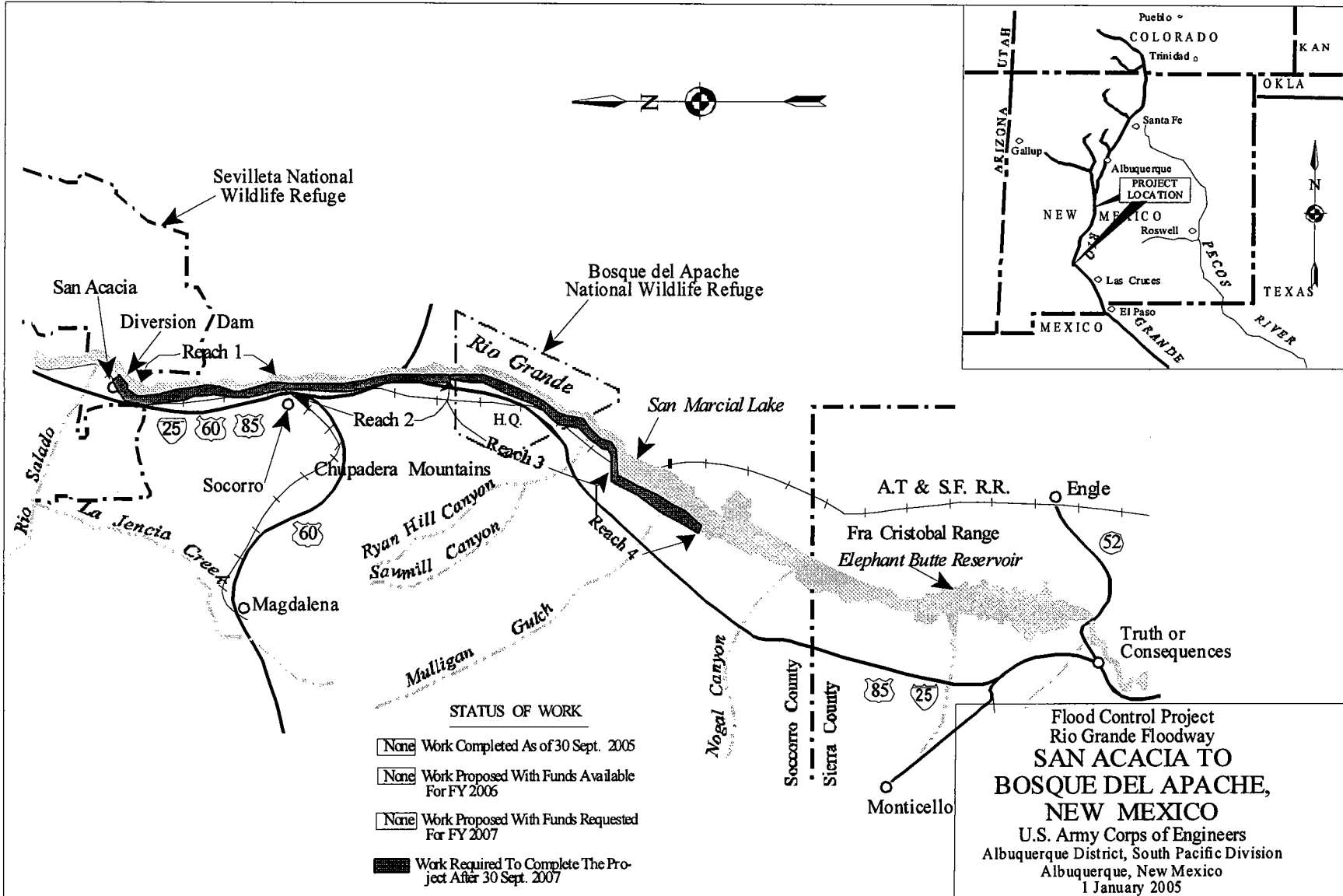
The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: 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 Cooperation Agreements for the project's recommended phases are scheduled for execution in March 2008. (see "Other Information").

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$62,300,000 is the same as the latest estimate (\$62,300,000) presented to Congress (FY 2003).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement was filed in February 1992. A supplemental Environmental Impact Statement will be filed with the Environmental Protection Agency in July 2007.

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 cost of fish and wildlife mitigation is \$1,260,000 based on 1 October 2005 price levels. In November 2001, the Bureau of Reclamation confirmed that the low flow conveyance channel would remain in its current location and configuration within the project area. Therefore, the originally authorized extended levee plan is still justified and feasible. The final Limited Reevaluation Report (LRR) is scheduled for approval in July 2007. The Project Cooperation Agreement is scheduled for execution in March 2008. Continued funding is critical to insure completion of the LRR and initiation of construction efforts to relocate and/or raise the San Marcial bridge by September 2008 to avoid reopening consultation with the United States Fish and Wildlife Service (USFWS) on their biological opinion. Federal agencies responsible for Middle Rio Grande water operations requested formal consultation with the USFWS, as required by Section 7 of the Endangered Species Act. The March 17, 2003 Biological Opinion is a programmatic biological opinion on Bureau of Reclamation's water and river maintenance operations, Army Corps of Engineers' flood control operations, and related non-federal actions on the Middle Rio Grande in New Mexico. The Reasonable and Prudent Alternative (RPA) concerning the San Marcial Railroad Bridge is Element U, page 98, of the Biological Opinion. The rationale of Element U is stated at the bottom of page 98: "The purpose... is to maintain or improve the quality and quantity of habitat available for the silvery minnow and flycatcher. These elements avoid the destruction or adverse modification of silvery minnow critical habitat by ensuring primary constituent elements are provided or restored. It is expected that by improving the habitat condition that reproduction, recruitment, and survival of the species will increase."



11 August 2005

APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

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, and Water Resources Development Act of 1996.

REMAINING BENEFIT-REMAINING COST RATIO: 4.6 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 1.5 to 1 at 7 percent.

INITIAL BENEFIT-COST RATIO: 1.3 to 1 at 7 percent

BASIS OF BENEFIT-COST RATIO: The benefit-cost ratio is based on the Phase II General Design Memorandum dated August 1988 at 1987 price levels.

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST	STATUS (1 JAN 2006)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	\$ 1,131,900,000		Seven Oaks Dam	100	August 99
Estimated Non-Federal Cost	570,100,000		Prado Dam	40	To be determined
Cash Contributions	\$ 104,300,000		Santiago Creek	0	To be determined
Other Costs	520,600,000		Mill Creek	100	March 92
Reimbursements	(54,800,000)		Oak Street Drain	100	September 94
Total Estimated Project Cost	\$ 1,702,000,000 <u>1/</u>		Lower Santa Ana Rch 9	50	To be determined
			Lower Santa Ana Rch 1-8,10	92	To be determined
Allocations to 30 September 2003	\$ 713,820,000		Marsh	100	March 91
Allocations for FY2004	23,833,000		San Timoteo	95	To be determined
Allocations for FY2005	22,156,000		Entire Project	90	To be determined
Conference Allowance for FY 2006	61,650,000				
Allocation for FY 2006	61,003,000 <u>2/</u>				
Allocations Through FY 2006	820,812,000	73			
Allocation Requested for FY 2007	54,080,000	77			
Programmed Balance to Complete after FY 2007	257,008,000				

1/ Reflects \$39,500,000 to be reimbursed to judgment fund for Seven Oaks claim

2/ Reflects \$617,000 Rescission, \$30,000 reprogrammed to another project

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)

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)

PHYSICAL DATA (Continued)

MILL CREEK

Division: South Pacific

District: Los Angeles
 6 February 2006

Santa Ana River Mainstem, California

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

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
- 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

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 (\$129.1 million at 2005 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 billion, at 2005 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.

JUSTIFICATION (Continued)

Division: South Pacific

District: Los Angeles
6 February 2006

Santa Ana River Mainstem, California

Average annual benefits, based on October 2005 price levels are as follows:

Annual Benefits	Amount
Flood Damage Prevention	\$ 142,845,000
Recreation	282,000
Total	\$ 143,127,000

FISCAL YEAR 2006: Current year funds will be used to:

Initiate Construction Prado Dam Phase II Dikes	5,000,000
Complete Construction for Lower Santa Ana Reach I & 2	1,500,000
Initiate Construction for Lower Santa Ana Reach 9 Phase II	1,000,000
Complete Sediment Basin Clean-up for San Timoteo Creek	3,500,000
Continue Construction for Prado Dam Outlets and Embankment	27,500,000
Complete Construction Channel 3B San Timoteo Creek	2,500,000
Initiate Recreation for San Timoteo Creek	1,000,000
Initiate Landscaping for San Timoteo Creek	2,500,000
Complete Invert Damage Repair Seven Oaks Dam	3,000,000
Initiate Water Quality Study Seven Oaks Dam	1,000,000
Planning, Engineering & Design	7,500,000
Construction Management	5,003,000
Total	\$61,003,000

FISCAL YEAR 2007: The requested amount will be applied as follows:

Initiate & Complete Construction for Lower Santa Ana Landscaping Reaches 5, 6 & 8	5,500,000
Continue Construction for Lower Santa Ana Reach 9 Phase II	13,000,000
Continue Construction for Prado Dam Phase II Dike	19,080,000
Complete Construction for Prado Dam Outlets and Embankment	8,500,000
Planning, Engineering & Design	4,000,000
Construction Management	4,000,000
Total	\$54,080,000

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

	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation and Replacement Costs
Requirements of Local Cooperation and Project Cooperation		
Santa Ana River Mainstem:		
Provide lands, easements, rights-of-way, and borrow and excavated or dredged material disposal areas.	\$ 144,000,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	58,000,000	
Pay 6 percent cash of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 25 percent, and bear all cost of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	59,700,000	\$1,194,000
Pay one-half of the separable costs allocated to recreation and bear all costs of operation, maintenance, repair, rehabilitation and replacement of recreation facilities.	800,000	6,000
San Timoteo Creek:		
Provide lands, easements, rights-of-way, and borrow and excavated or dredged material disposal areas.	8,000,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	6,600,000	
Pay 10 percent cash of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 25 percent, and bear all cost of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	9,800,000	1,000,000
Reimburse 100 percent of the Federal funds, loaned to the sponsor, 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	

Division: South Pacific

District: Los Angeles
6 February 2006

Santa Ana River Mainstem, California

Requirements of Local Cooperation (Continued)	Payments During Construction and Reimbursements	Annual Operation Maintenance Repair Rehabilitation and replacement Costs
Pay one-half of the separable costs allocated to recreation and bear all costs of operation, maintenance, repair, rehabilitation and replacement of recreation facilities.	1,200,000	
Prado Dam: Provide lands, easements, rights-of-way, and borrow and excavated or dredged material disposal areas.	283,500,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	19,700,000	
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.	27,600,000	200,000
Estimated reimbursement to local sponsor for LERRDS in excess of 45 percent of total project costs for flood control, subject to availability of funds.	(54,800,000)	
Total Non-Federal Costs	\$ 570,100,000	\$ 2,400,000

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. Schedules for executing a Project Cooperation Agreement and programming this work are being determined. On 30 June 1997, the Assistant Secretary of the Army (Civil Works) approved Prado Dam as a separable element.

STATUS OF LOCAL COOPERATION (Continued)

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 be 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 \$570,100,000, which includes a cash contribution of \$104,300,000, is an increase of \$130,100,000 from the non-Federal cost estimate of \$440,000,000 noted in the current amended Local Cooperation Agreement dated August 1999, which included a cash contribution of \$57,000,000. Analysis of the non-Federal sponsors' financial capability to participate in the project affirms that Riverside and San Bernardino Counties still have a reasonable and implementable plan for meeting their financial commitments. 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 be modified in accordance with section 103(a) (3) of Water Resources Development Act of 1996. 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 \$1,131,900,000 is an increase of \$106,900,000 from the latest estimate (\$1,025,000,000) presented to Congress (FY 2006). This change includes the following items.

Item	Amount
Price Escalation on Construction Features.	\$ 6,900,000
Price Escalation on Real estate Features	\$100,000,000
Total	\$106,900,000

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.

Through negotiations with Fish and Wildlife Service on Section 7 consultations for endangered species (Eriastrum below Seven Oaks and Least Bell's Vireo at Prado Dam), agreement 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.

OTHER INFORMATION (Continued)

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 \$1,362,000 (\$1,266,000 Federal and \$96,000 non-Federal), for San Timoteo are \$2,743,000 (\$2,725,000 Federal and \$18,000 non-Federal) and for Lower Santa Ana are \$6,713,000 (\$6,537,000 Federal and \$176,000 non-Federal.)

An agreement was signed on 21 September 1989, in accordance with Section 215 of the Flood Control Act of 1968, to permit Orange County to undertake early partial construction of the Santiago Creek improvements in conjunction with other improvements they are planning for water supply, and to be credited for applicable project construction.

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 funds specifically identified in Act Language through 2006 for a total of \$78,400,000.

As a result of local sponsor activities to develop a more environmentally sensitive design for Reach 3, such as a soft-bottom channel, the remainder of the project has been redesigned as Reach 3A (extending to just upstream of Barton Road) and Reach 3B (the remainder of the channel and the in-channel debris control structures). The non-Federal Sponsor has agreed to continue with Reach 3A as per the original design. The Corps with the local Sponsor developed an alternative plan for Reach 3B.

Section 103 (k) of Water Resources Development Act of 1986, authorized reimbursement with interest over time by the non-Federal sponsor over a period of not more than thirty years from the date of completion of the project. A supplemental local cooperation agreement was approved in April 2001 and a total of \$6,000,000 has been loaned to date.

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 that portion of California State Route 71 being relocated for the Prado Dam feature of the project.

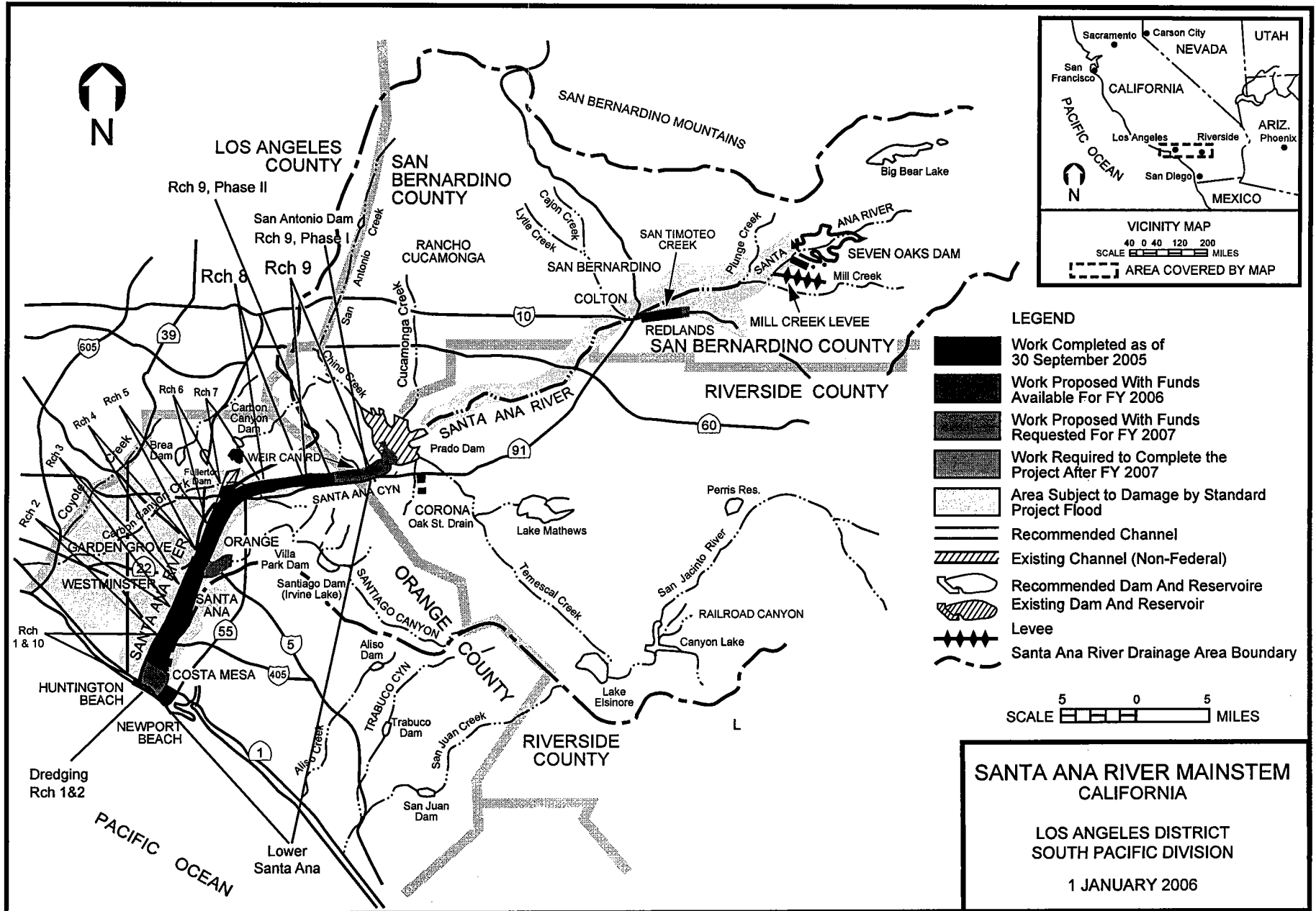
OTHER INFORMATION (Continued)

Total Lands, Easements, Rights of Ways, Relocations and Disposals (LERRD) for the Prado Dam project 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. The SARI line, a sewage utility line, is currently under legal review to determine if it is an authorized LERRD and part of the authorized project. If the SARI relocation, estimated at \$67,000,000, is identified as part of the authorized project, then the Orange County Flood Control District, the local sponsor, could request some reimbursement from the state of California.

An increase in land values for Prado Dam was presented by the Orange County Flood Control District, the local sponsor and has partially been applied to the current cost estimate. An appraisal analysis and reconciliation of purchased lands is being conducted to determine if a portion of the land value is accurate.

If the SARI line is authorized and the appraisal analysis for land values is verified, the total Santa Ana River Mainstem Project cost estimate would place the total estimate above the 902 maximum cost of project.



APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

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 and Water Resources Development Act of 1986.

REMAINING BENEFIT-REMAINING COST RATIO: 9.1 to 1.

TOTAL BENEFIT-COST RATIO: Not Applicable

INITIAL BENEFIT-COST RATIO: Not Reported

BASIS OF BENEFIT-COST RATIO: The estimate for remaining work to fix the levees in the Sacramento Valley was annualized over 50 years at 7% and computes to \$7.825 million per year. The complete repair of the levee system along the Sacramento River will provide a substantial amount of additional flood protection to the property at risk within the associated floodplains. Renovation of the entire levee system is estimated to possibly reduce the estimated annual damages (EAD) from \$251.4 million to \$180 million. These are preliminary figures.

SUMMARIZED FINANCIAL DATA

Separable Element 1 (Completed Pre-Separable Element Work-Contracts 1-37, 38A and 39)

Estimated Federal Cost		\$54,210,000
Estimated Non-Federal Cost		\$27,110,000
Cash Contribution	\$12,020,000	
Other Costs	15,090,000	
Total Separable Element 1		\$81,320,000

Separable Element 2 (Completed Fish & Wildlife Mitigation)

Estimated Federal Cost		\$ 1,332,000
Estimated Non-Federal Cost		\$ 790,000
Cash Contribution	\$ 90,000	
Other Costs	700,000	
Total Separable Element 2		\$ 2,122,000

Separable Element 3 (LCA 41)

Estimated Federal Cost		\$17,450,000
Estimated Non-Federal Cost		\$ 5,820,000
Cash Contribution	\$ 4,800,000	
Other Costs	1,020,000	
Total Separable Element 3		\$23,270,000

Division: South Pacific

District: Sacramento
6 February 2006

STATUS
(1 JAN 2006)

PERCENT
COMPLETE

PHYSICAL
COMPLETION
SCHEDULE

Bank Protection
Recreation
Entire Project

95
42
95

TBD
TBD
TBD

Sacramento River Bank Protection
California

SUMMARIZED FINANCIAL DATA (Continued)

Separable Element 4 (LCA 38B, 40, & 42)

Estimated Federal Cost		\$ 92,285,000
Estimated Non-Federal Cost		\$ 31,043,000
Cash Contribution	\$24,984,000	
Other Costs	6,059,000	
Total Separable Element 4		\$123,328,000

Separable Element 5 (PCA 43)

Estimated Federal Cost		\$ 33,723,000
Estimated Non-Federal Cost		\$ 11,237,000
Cash Contribution	\$ 5,067,000	
Other Costs	6,170,000	
Total Separable Element 5		\$ 44,960,000

SUMMARIZED FINANCIAL DATA (Continued)

Project Summary

Estimated Federal Cost		\$199,000,000
Estimated Non-Federal Cost		\$ 76,000,000
Cash Contribution	\$46,961,000	
Other Costs	29,039,000	
Total Estimated Project Cost		\$275,000,000

		ACCUM PCT OF EST FED COST	PHYSICAL DATA
Allocations to 30 September 2003	\$119,723,000		Bank Protection: 835,000 lineal feet
Allocation for FY 2004	1,065,000		First Phase -- 430,000 lineal feet
Allocation for FY 2005	3,979,000		Second Phase-- 405,000 lineal feet
Conference Allowance for FY 2006	6,300,000		
Allocation for FY 2006	6,237,000	1/	
Allocations through FY 2006	131,004,000	66	
Allocation Requested for FY 2007	10,960,000	71	
Balance to Complete after FY 2007	57,036,000		

1/ Reflects \$63,000 rescission.

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 insure 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 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 area protected by the levees comprise 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 788,000 lineal feet of bank protection has been provided. Approximately 35,000 lineal feet of bank protection remains to be placed on the second phase of this project, and the local sponsor supports the addition of a third phase (about 30,000 lineal feet), which will require Congressional authorization.

FISCAL YEAR 2006: Current year funds will be used to:

Construct Pocket Area erosion sites	\$1,000,000
Design and construct mitigation site LAR 0.5	1,650,000
Initiate NEPA/CEQA Environmental Programmatic Analysis	200,000
Complete construction RM 56.7	3,117,000
Construction Management	270,000
Total	\$6,237,000

FISCAL YEAR 2007: The requested amount will be applied as follows:

Division: South Pacific

District: Sacramento
6 February 2006

Sacramento River Bank Protection
California 345

Construct Pocket Area erosion sites	\$ 9,100,000
Continue NEPA/CEQA Environmental Programmatic Analysis	700,000
Engineering and Design During Construction	500,000
Construction Management	660,000
Total	\$10,960,000

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.

	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.	\$23,080,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	5,959,000	
Pay 15 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to one-third for work initiated prior to 30 April 1986, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	12,020,000	\$ 809,000
Pay 18 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 25 percent for work initiated after 30 April 1986, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	34,941,000	280,000
Total Non-Federal Costs	\$76,000,000	\$1,089,000

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

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. As of 30 September 2004, the State has expended \$51,081, 000 for construction of the project. 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. Execution of a Project Cooperation Agreement for separable element 43, the last separable element in the Second Phase, is unscheduled pending approvals to proceed with more comprehensive evaluations of design alternatives. The current non-Federal cost estimate of \$76,000,000 is an increase of \$6,500,000 from the estimate last presented to Congress (FY 2005). The local sponsor supports the increase and is financially positioned to provide their increased share of project costs.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$199,000,000 is an increase of \$19,100,000 from the latest estimate of \$179,900,000 presented to Congress (FY2005). The change includes the following items:

Price Escalation on Construction Feature	\$13,740,000
Design Changes	5,360,000
Total	\$19,100,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: A final Environmental Impact Statement (EIS) was filed on 15 June 1973. A 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's 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. A General Reevaluation Report (GRR) will be required to address remaining sites.

OTHER INFORMATION: Funds to initiate preconstruction planning were appropriated in FY 1962, and for construction in FY 1963. Construction of First Phase was completed in November 1974. Authority to proceed with additional bank protection works, 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 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 (\$2,122,000 inflated through construction). The last parcel was acquired in Fiscal Year 1997. Re-vegetation has been highly successful and is serving as a model for re-vegetation efforts by others.

OTHER INFORMATION (cont'd)

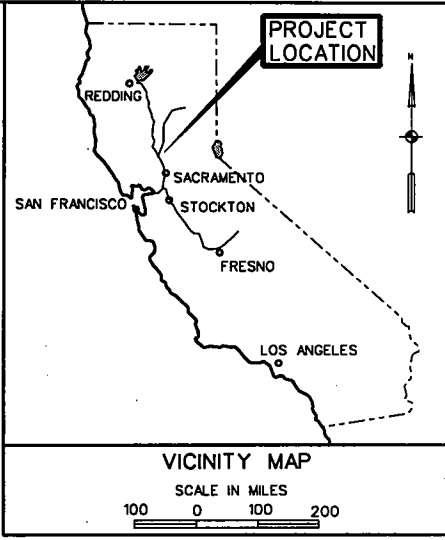
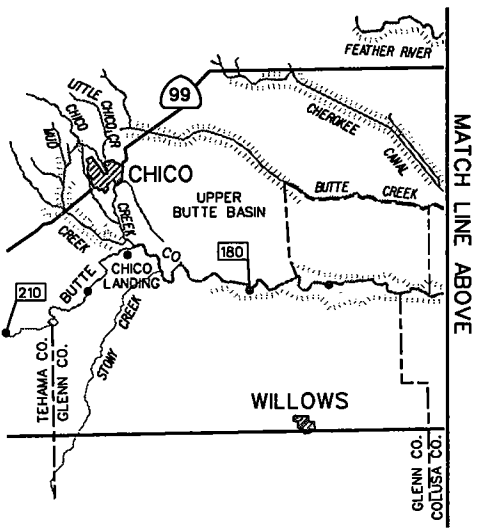
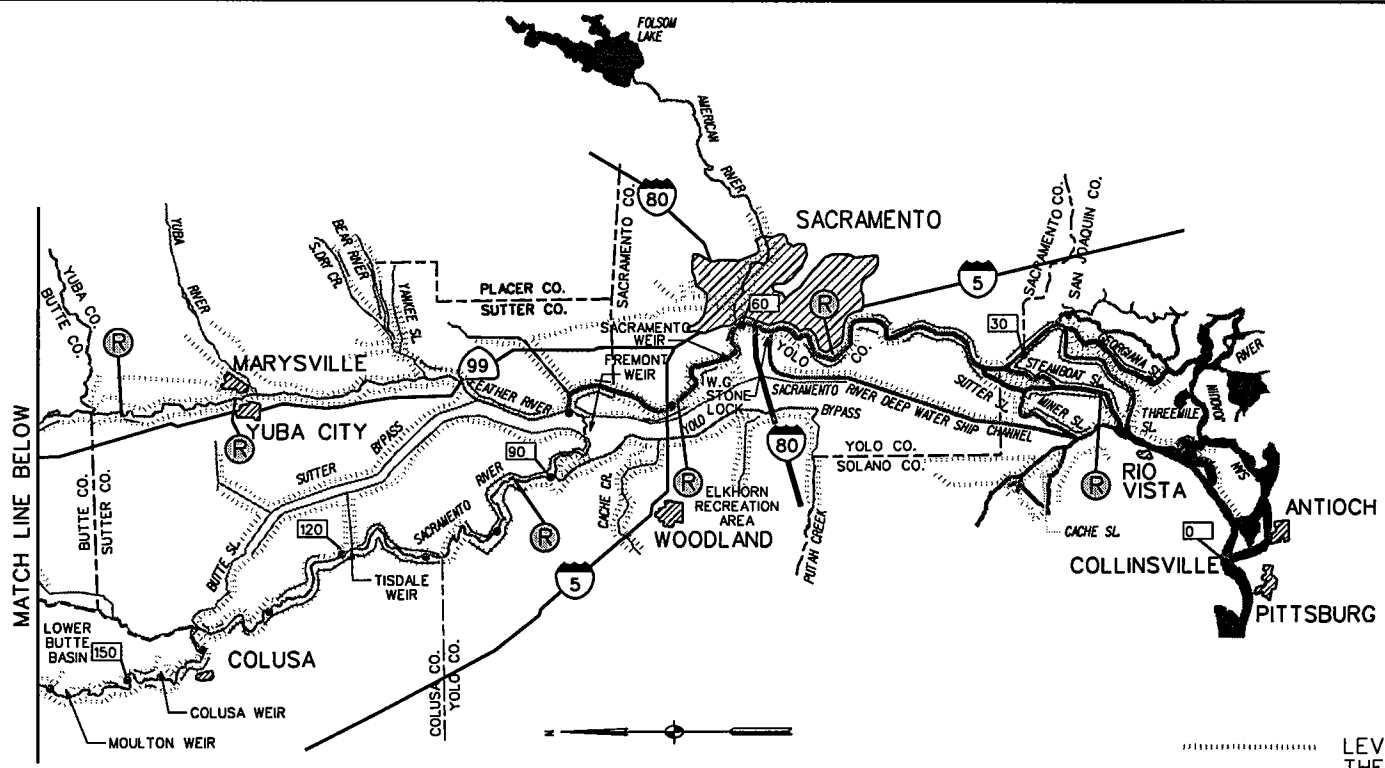
The U.S. Fish and Wildlife Service, by letter dated November 7, 1985, issued a Biological Opinion stating that the bank protection work along the Sacramento River from Chico Landing to Red Bluff and in the Butte Basin area would endanger the threatened valley elderberry longhorn beetle. The Service issued 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. 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. By letter dated 16 September 1992, NMFS has requested re-initiation of formal consultation for winter run salmon. This effort is unscheduled and unprogrammed at this time.

On August 23, 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 September 27, 2001. Both opinions were virtually identical in terms of identifying the SRBPP's effects as 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. The Corps is currently participating in interagency working groups to reconcile needs for continued bank protection with fish habitat as defined in the biological opinion.

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 January and March 1995 and January 1997 have caused erosion damage and the urgency for bank protection has increased.

Several sites along the Lower American River within the confines of the Sacramento River Bank Protection Project require bank protection to avoid undermining levees and flood protection in the Sacramento Metropolitan Area. Repair of these sites is the basis for the pre-project condition of the American River Investigation. These sites, totaling approximately 14,000 lineal feet, have been included as part of separable element 42. Lower American River 1A3, Site 3 was completed May 1999. Lower American River 2, Site 5 phase 1 was completed September 1999. Lower American River Sites 2 and 4 and Site 5 phase 2 were completed December 1999. Lower American River Site 5 Phase 3 was awarded in November 2000 and construction was completed in FY 2001. Monitoring will continue three years for plant establishment. Contract 40E, RM 149, was awarded December 2001 and completed November 2002. The contract for construction of flood control and erosion features at the river mile 56.7 site was awarded in September 2004. Completion of this work is unscheduled pending availability of additional Federal funding.

The fish and wildlife mitigation cost is estimated at \$31 million.

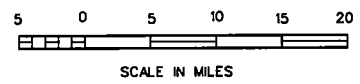


LEGEND

- 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
- 90 RIVER MILES

LOCAL PROTECTION PROJECTS
(FLOOD CONTROL)
**SACRAMENTO RIVER
BANK PROTECTION PROJECT
CALIFORNIA**

WORK COMPLETED, IN PROGRESS & PROPOSED
SACRAMENTO DISTRICT
SOUTH PACIFIC DIVISION
1 JANUARY 2006



24 August 2005

COMPLETED WORK

FIRST PHASE, BANK PROTECTION:
 CONTRACTS 1 THRU 26 (430,000 LF)

SECOND PHASE PART 1, BANK PROTECTION:
 CONTRACTS 27 THRU 36 (182,000 LF)

SECOND PHASE PART II, BANK PROTECTION:
 PRE-SEPARABLE ELEMENT (46,744 LF)
 37 (RM 0-62)
 38A (RM 60-145)
 39 (RM 177-194)

SEPARABLE ELEMENT 38B (14,436 LF)
 38B (RM 60-120)

SEPARABLE ELEMENT 40 (40,794 LF)
 EMERGENCY COUNTY ROAD 29
 (RM 186-188)
 40A (RM 132-180)
 40B-1 (RM 187-192)
 40B-M (RM 145-194)
 40C (RM 15-25)
 STEAMBOAT, MINER & SUTTER SL.
 40C-M (RM 15-25)
 40D (RM 16, 1R) STEAMBOAT SL.
 40D-M (RM SL16.1)
 40E (RM 149)

SEPARABLE ELEMENT 41 (29,475 LF)
 41A (RM 0-60)
 41A-M1 (RM 20-60)
 41A-M2 (RM 20-60)
 41A-M3 (RM 20-60)
 41A-M4 (RM 20-60)
 41A-M5 (RM 20-60)
 41B (FEATHER RIVER)
 41B-M (FEATHER RIVER)

COMPLETED WORK (Cont.)

SECOND PHASE PART II, BANK PROTECTION (CONT.):
 SEPARABLE ELEMENT 42 (17,362 LF)
 42A (RM 60-145)
 42A-M (RM 60-145)
 42A-M1 (RM 60-145)
 42C (RM 90.4 & 90.9) FISH CURT.
 42C-M (RM 90.4 & 90.9) FISH CURT.
 42D (RD 108-COLUSA BASIN)
 42D-M (RD 108-COLUSA BASIN)
 LAR 1A1 (SITE 3)
 LAR 1A2 (RM 4.4, SITE 3, RIVER PARK)
 LAR 1A2-M (RM 4.4, SITE 3, RIVER PARK)
 LAR 1A3-M (RM 4.4, SITE 3, RIVER PARK)
 LAR 1B (RM 2-9, SITES 1, 2 & 4)
 LAR 1B-M (RM 2-9, SITES 1, 2 & 4)
 LAR 2 (SITE 5, PHASE 1)
 LAR 2 (SITE 5, PHASE 2)
 LAR 2-M (SITE 5, PHASE 3)

WORK PROPOSED WITH FY07 FUNDS

RM 56.7 & 60
 RM 49.6 - 53.1 (Pocket FEMA)

WORK PROPOSED WITH REMAINING FUNDS

RM 43.3R
 RM 78.0L
 RM 56.8L
 RM 72.2R
 RM 69.9R
 RM 73.0R
 RM 71.7R

WORK STATUS

COMPLETED	WORK COMPLETED AS OF 30 SEPTEMBER 2005
06	WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2006
07	WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2007
REMAINING	WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2007

LOCAL PROTECTION PROJECTS (FLOOD CONTROL)
SACRAMENTO RIVER BANK PROTECTION PROJECT CALIFORNIA
WORK COMPLETED, IN PROGRESS & PROPOSED
SACRAMENTO DISTRICT SOUTH PACIFIC DIVISION 1 JANUARY 2006

APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

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

REMAINING BENEFIT-REMAINING COST RATIO: 3.8 to 1 at 7 percent.

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

INITIAL BENEFIT-COST RATIO: 3.9 to 1 at 7 percent.

BASIS OF BENEFIT-COST RATIO: Benefits are from the latest available evaluation contained in the limited Reevaluation Report dated December 2004 (October 2003 price level)

SUMMARIZED FINANCIAL DATA		STATUS (1 JAN 2006)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	\$59,700,000	Entire Project	20	TBD
Estimated Non-Federal Cost	\$32,200,000			
Cash Contribution	\$19,900,000			
Other Costs	6,390,000			
Section 104 Credit	5,910,000			
Total Estimated Project Cost	\$91,900,000			

Division: South Pacific

District: Sacramento
6 February 2006

South Sacramento County
Streams, California

SUMMARIZED FINANCIAL DATA (Continued)

		ACCUM PCT OF EST FED COST	PHYSICAL DATA
Allocations to 30 September 2003	\$ 3,166,000		
Allocations for FY 2004	1,118,000		
Allocations for FY 2005	2,999,000		Beach Stone Lakes
Conference Allowance for FY 2006	3,750,000		Floodwalls: .4 mile
Allocation for FY 2006	3,712,000 1/		Levee Raising: 4.0 miles
Allocations through FY 2006	10,995,000	18	New Levee: 1.3 miles
			Levee improvement: 2.0 miles
Allocation Requested for FY 2007	7,313,000	31	Morrison Creek
Programmed Balance to Complete after FY 2007	41,392,000		Levee raising: .6 miles
			Levee improvement: 3.8 miles
			Floodwalls: 3.8 miles
			Florin Creek
			Floodwalls: 3.8 miles
			Elder Creek
			Levee improvement: 1.0 miles
			Floodwalls: 2.6 miles
			Unionhouse Creek
			Levee improvement: .9 miles
			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 bicycle and pedestrian trail with signs, fencing, and benches.

1/ Reflects \$38,000 rescission.

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.

JUSTIFICATION (Continued)

The levees along Morrison Creek and tributaries provide less than a 100-year level of flood protection. The selected plan, known as the Consistent High Protection Plan, would provide a high level of protection (1 in 500 annual event) to all index areas, including Morrison, Elder, Florin and Unionhouse Creeks and to the Beach Stone Lakes and SRWTP levees. A 1 in 100 annual event would result in nearly \$715 million in damages (existing conditions) and more than \$2 billion in damages for a 1 in 500 annual event. JUSTIFICATION (Continued)

The average annual benefits at October 2003 price levels are as follows:

Annual Benefits	Amount
Flood Control	\$23,665,000
Recreation	141,000
Environmental Restoration	0 2/
Total	\$23,806,000

2/ Ecosystem restoration benefits are not measured in dollars.

FISCAL YEAR 2006: Current year funds will be used to:

Initiate construction contract IB	\$ 200,000
Continue restoration contract	80,000
Complete construction contract IA	2,600,000
Engineering and Design During Construction	732,000
Construction Management	100,000
Total	\$3,712,000

FISCAL YEAR 2007: The requested amount will be applied as follows:

Continue construction contract IB	\$ 6,020,000
Continue restoration contract	80,000
Engineering and Design During Construction	900,000
Construction Management	313,000
Total	\$7,313,000

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.

	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.	\$ 4,005,000	\$
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	1,027,000	
Receive credit for prior work accomplished IAW section 104 of WRDAS 86	7,193,000	
Pay 21 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.	19,200,000	402,000
Pay one-half of the separable costs allocated to recreation and bear all costs of operation, maintenance, repair, rehabilitation and replacement of recreation facilities.	775,000	41,000
Total Non-Federal Costs	\$ 32,200,000	\$ 380,000

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

STATUS OF LOCAL COOPERATION: The State of California Reclamation 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 \$32,200,000 includes a cash contribution of \$19,900,000. 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 estimate was revised to \$5,910,000 in the South Sacramento County Streams Addendum to the Feasibility Report dated September 1998. 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 Reclamation 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 May 2005. The sponsor has a reasonable plan for implementation to meet its financial commitment.

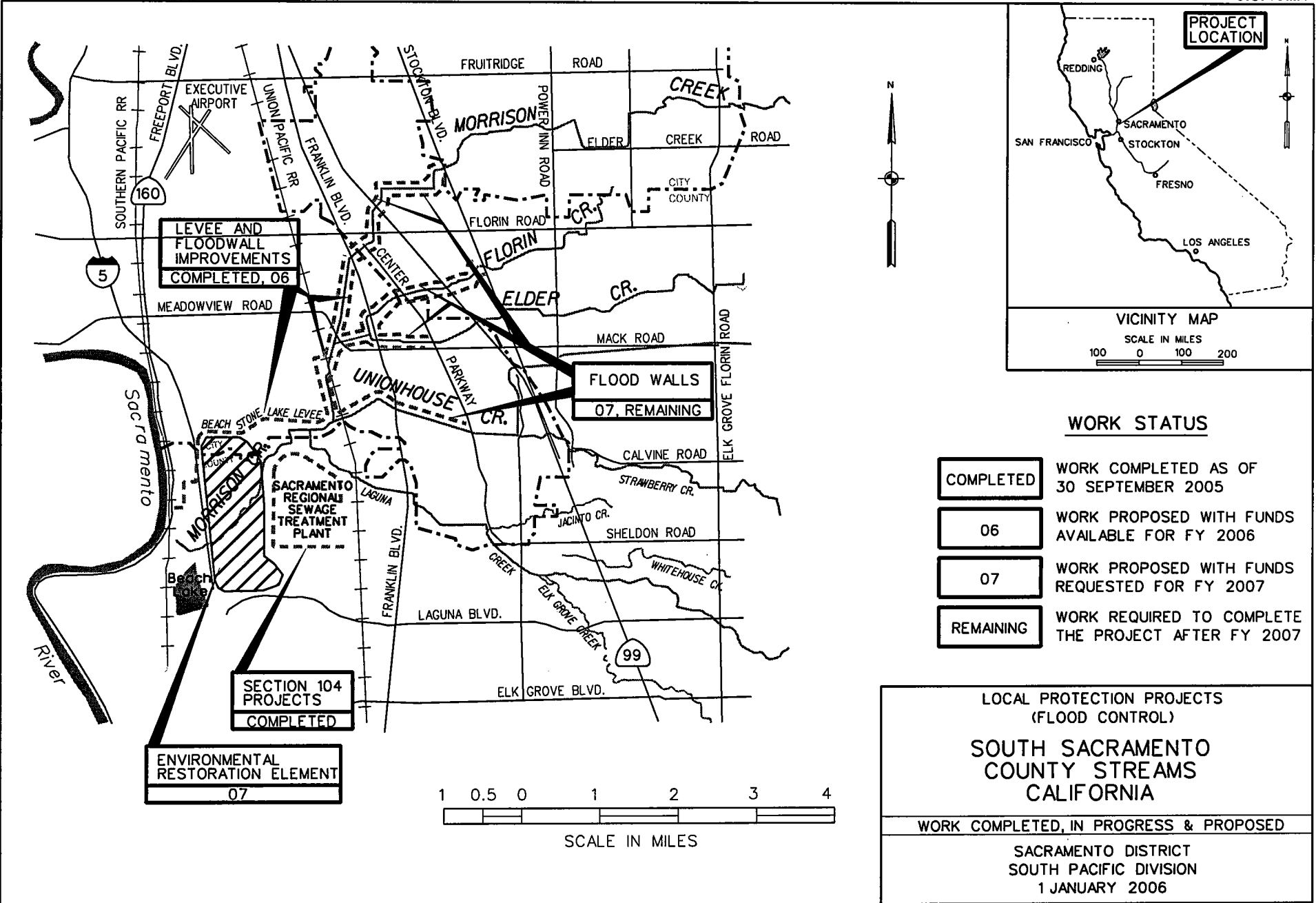
COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$59,700,000 has not changed from the latest estimate presented to Congress (FY 2006).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Final Environmental Impact Statement/Environmental Impact Report was filed with EPA 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 June 14, 2005. Plans and specs for the next contract (contract 1B) are scheduled to be finalized in April 2006. Award of construction contract 1B scheduled for May 2006.

The restoration contract will continue through mid FY2008.

Fish and wildlife mitigation costs are currently estimated at \$914,000.



APPROPRIATION TITLE: Construction, General - 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 Assurance Program (DSAP) Evaluation Report recommends remedial treatment at Success Dam to prevent foundation liquefaction that could lead to a catastrophic failure of the dam.

AUTHORIZATION: Flood Control Act of 1944

REMAINING BENEFIT-REMAINING COST RATIO: N/A

TOTAL BENEFIT-COST RATIO: N/A

BASIS OF BENEFIT-COST RATIO: N/A

SUMMARIZED FINANCIAL DATA		STATUS (1 JAN 2006)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Appropriation Requirements (COE)	\$189,400,000	Entire Project	Not Started	TBD
Future Non-Federal Reimbursement	2,700,000	PHYSICAL DATA		
Estimated Federal Cost (Ultimate)	186,700,000	Dam-earthfill		
Estimated Non-Federal Cost	2,700,000	Gated outlet conduit		
Cash Contribution	\$ 0	Uncontrolled spillway 200 feet wide		
Other Costs	0	Crest length 22.5 feet		
Reimbursements	2,700,000	Crest width 16.0 feet		
Total Estimated Project Cost	\$189,400,000			

Division: South Pacific

District: Sacramento
6 February 2006

Success Dam and Reservoir, Tule River, CA
Dam Safety Seismic Remediation

SUMMARIZED FINANCIAL DATA (Continued)

			ACCUM PCT OF EST FED COST
Allocations thru 30 September 2003	\$ 3,820,000	1/	
Allocation for FY 2004	1,600,000		
Allocation for FY 2005	3,383,000		
Conference Allowance for FY 2006	8,000,000		
Allocation for FY 2006	7,920,000	2/	
Allocations through FY 2006	16,723,000		9
Allocation Requested for FY 2007	25,000,000		22
Programmed Balance to Complete after FY 2007	147,677,000	3/	

1/ Includes \$344,000 for PED funded under the Operations and Maintenance Appropriation.

2/ Reflects \$80,000 rescission.

3/ Non-federal sponsor has up to 50 years to repay their share of project costs, therefore appropriations for entire project cost must be programmed.

JUSTIFICATION: Success Dam and Reservoir is located on the Tule River about 5 miles east and upstream of the town of Porterville, Tulare County, California. Construction of the main dam and appurtenances was begun during October 1958. The project was certified complete and accepted by the Government for operation on 15 May 1961. The total first cost of the project is approximately \$14,247,000 (1961 dollars). The project lies within Seismic Zone 3 (major seismic hazard), and is operated and maintained under the jurisdiction of the US Army Corps of Engineers, Sacramento District. The main dam is a rolled earthfill structure with a maximum height of 142 feet and is 3,404 feet long.

A 1983 report, "Dynamic Analysis of Success Dam, Success Reservoir, Tule River, California" (US Army Corps of Engineers, Sacramento District, June 1983), concluded that Success Dam would perform adequately in the event of a Maximum Credible Earthquake as required by criteria in ER 1110-2-1806 (16 May 1983). During the review of the dynamic analysis report, it was noted that there was considerable uncertainty about the amount of actual deformation the dam would experience under seismic loading. However, the dam was deemed safe due to the available freeboard of 39 feet when the reservoir is at gross pool. In June 1992, a Technical Review Conference (TRC) reexamined the 1983 report and concluded that the 1983 study was representative of accepted engineering practices at the time of its completion. However, the TRC recognized that recent advances allowed better understanding of the alluvial soils present in the foundation of Success Dam and recommended further studies be performed to update the seismic evaluation.

These recent studies 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).

JUSTIFICATION (Continued)

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 2006: Current year funds will be used to:

Continue EIS mitigation design/RE acquisition	\$2,000,000
Complete quarry & borrow investigation program	3,920,000
Engineering and design during construction	2,000,000
Total	\$7,920,000

FISCAL YEAR 2007: The requested amount will be applied as follows:

Initiate conduit extension and park HQ relocation	\$ 9,000,000
Continue environmental mitigation	3,000,000
Complete real estate acquisition, relocation & EIS	9,800,000
Engineering and design during construction	3,200,000
Total	\$25,000,000

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	Payment During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, 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 50 years following completion of construction.	\$2,700,000	
Total Non-Federal Costs	\$2,700,000	

The non-Federal sponsor has agreed to reimburse its share of construction costs within a period of 50 years following completion of construction in accordance with 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 \$189,400,000 is an increase of \$3,300,000 from the latest estimate (\$186,100,000) presented to Congress (FY 2006). The change includes the following item:

Item	Amount
Price Escalation on Construction Features	\$3,300,000
Total	\$3,300,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: A complete environmental assessment will be conducted prior to initiating remedial work.

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.

In September 2004, a new roller compacted concrete dam (RCC) at the toe of the existing dam was chosen as the preferred alternative for remediation of Success Dam. A replacement dam was selected since removal of 75% of the existing dam would be necessary in order to expose and remove liquefiable material underlying the existing dam. Removal of the existing dam would result in the loss of flood protection and water storage to the downstream communities during the construction period.

In October 2005, foundation explorations conducted during the year indicated that subsurface conditions at the site would not support a concrete dam. Preliminary cost estimates indicate significant potential cost increases for the earthen dam alternative over the current project estimate. These additional costs result from increased environmental impacts, modifications to the existing outlet works, relocation of downstream residents, additional engineering costs, and the proximity and availability of borrow sites for the construction of the earthen dam. The magnitude of the potential cost increase will not be known until completion of ongoing studies and the EIS in December 2006.

APPROPRIATION TITLE: Construction, General - 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 Assurance Program (DSAP) Evaluation Report recommends remedial treatment at Success Dam to prevent foundation liquefaction that could lead to a catastrophic failure of the dam.

AUTHORIZATION: Flood Control Act of 1944

REMAINING BENEFIT-REMAINING COST RATIO: N/A

TOTAL BENEFIT-COST RATIO: N/A

BASIS OF BENEFIT-COST RATIO: N/A

SUMMARIZED FINANCIAL DATA		STATUS (1 JAN 2006)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Appropriation Requirements (COE)	\$189,400,000	Entire Project	Not Started	TBD
Future Non-Federal Reimbursement	2,700,000	PHYSICAL DATA		
Estimated Federal Cost (Ultimate)	186,700,000	Dam-earthfill		
Estimated Non-Federal Cost	2,700,000	Gated outlet conduit		
Cash Contribution	\$ 0	Uncontrolled spillway 200 feet wide		
Other Costs	0	Crest length 22.5 feet		
Reimbursements	2,700,000	Crest width 16.0 feet		
Total Estimated Project Cost	\$189,400,000			

Division: South Pacific

District: Sacramento
6 February 2006

Success Dam and Reservoir, Tule River, CA
Dam Safety Seismic Remediation

SUMMARIZED FINANCIAL DATA (Continued)

			ACCUM PCT OF EST FED COST
Allocations thru 30 September 2003	\$ 3,820,000	1/	
Allocation for FY 2004	1,600,000		
Allocation for FY 2005	3,383,000		
Conference Allowance for FY 2006	8,000,000		
Allocation for FY 2006	7,920,000	2/	
Allocations through FY 2006	16,723,000		9
Allocation Requested for FY 2007	25,000,000		22
Programmed Balance to Complete after FY 2007	147,677,000	3/	

1/ Includes \$344,000 for PED funded under the Operations and Maintenance Appropriation.

2/ Reflects \$80,000 rescission.

3/ Non-federal sponsor has up to 50 years to repay their share of project costs, therefore appropriations for entire project cost must be programmed.

JUSTIFICATION: Success Dam and Reservoir is located on the Tule River about 5 miles east and upstream of the town of Porterville, Tulare County, California. Construction of the main dam and appurtenances was begun during October 1958. The project was certified complete and accepted by the Government for operation on 15 May 1961. The total first cost of the project is approximately \$14,247,000 (1961 dollars). The project lies within Seismic Zone 3 (major seismic hazard), and is operated and maintained under the jurisdiction of the US Army Corps of Engineers, Sacramento District. The main dam is a rolled earthfill structure with a maximum height of 142 feet and is 3,404 feet long.

A 1983 report, "Dynamic Analysis of Success Dam, Success Reservoir, Tule River, California" (US Army Corps of Engineers, Sacramento District, June 1983), concluded that Success Dam would perform adequately in the event of a Maximum Credible Earthquake as required by criteria in ER 1110-2-1806 (16 May 1983). During the review of the dynamic analysis report, it was noted that there was considerable uncertainty about the amount of actual deformation the dam would experience under seismic loading. However, the dam was deemed safe due to the available freeboard of 39 feet when the reservoir is at gross pool. In June 1992, a Technical Review Conference (TRC) reexamined the 1983 report and concluded that the 1983 study was representative of accepted engineering practices at the time of its completion. However, the TRC recognized that recent advances allowed better understanding of the alluvial soils present in the foundation of Success Dam and recommended further studies be performed to update the seismic evaluation.

These recent studies 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).

JUSTIFICATION (Continued)

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 2006: Current year funds will be used to:

Continue EIS mitigation design/RE acquisition	\$2,000,000
Complete quarry & borrow investigation program	3,920,000
Engineering and design during construction	2,000,000
Total	\$7,920,000

FISCAL YEAR 2007: The requested amount will be applied as follows:

Initiate conduit extension and park HQ relocation	\$ 9,000,000
Continue environmental mitigation	3,000,000
Complete real estate acquisition, relocation & EIS	9,800,000
Engineering and design during construction	3,200,000
Total	\$25,000,000

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.

	Payment During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Requirements of Local Cooperation		
Reimburse 15 percent of the costs of modification allocated to irrigation water supply (9.5% of total project cost) within a period of 50 years following completion of construction.	\$2,700,000	
Total Non-Federal Costs	\$2,700,000	

The non-Federal sponsor has agreed to reimburse its share of construction costs within a period of 50 years following completion of construction in accordance with 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 \$189,400,000 is an increase of \$3,300,000 from the latest estimate (\$186,100,000) presented to Congress (FY 2006). The change includes the following item:

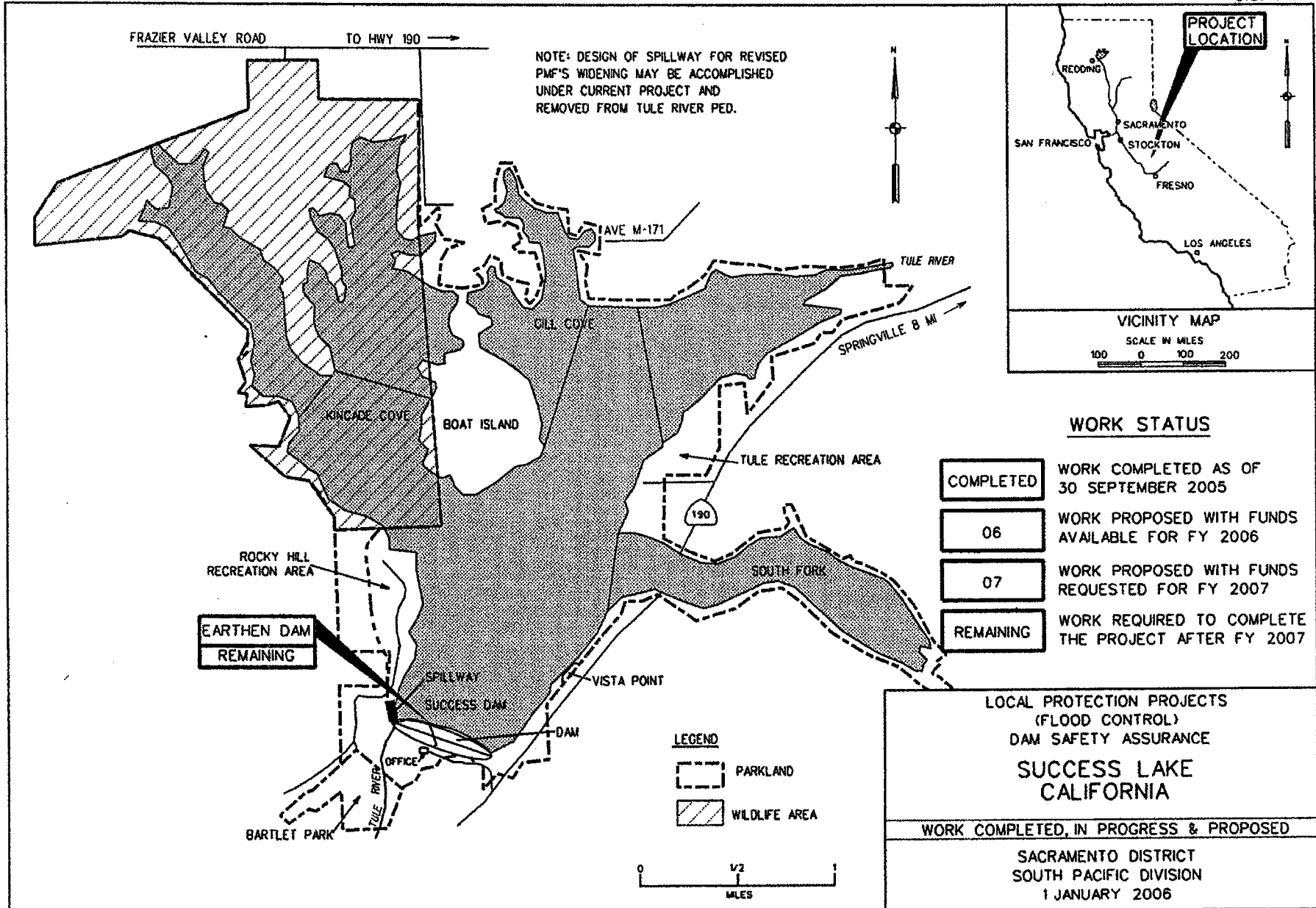
Item	Amount
Price Escalation on Construction Features	\$3,300,000
Total	\$3,300,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: A complete environmental assessment will be conducted prior to initiating remedial work.

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.

In September 2004, a new roller compacted concrete dam (RCC) at the toe of the existing dam was chosen as the preferred alternative for remediation of Success Dam. A replacement dam was selected since removal of 75% of the existing dam would be necessary in order to expose and remove liquefiable material underlying the existing dam. Removal of the existing dam would result in the loss of flood protection and water storage to the downstream communities during the construction period.

In October 2005, foundation explorations conducted during the year indicated that subsurface conditions at the site would not support a concrete dam. Preliminary cost estimates indicate significant potential cost increases for the earthen dam alternative over the current project estimate. These additional costs result from increased environmental impacts, modifications to the existing outlet works, relocation of downstream residents, additional engineering costs, and the proximity and availability of borrow sites for the construction of the earthen dam. The magnitude of the potential cost increase will not be known until completion of ongoing studies and the EIS in December 2006.



APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: Tropicana and Flamingo Washes, Nevada (Continuing)

LOCATION: The project area is located west of and through the urbanized Las Vegas area along both Tropicana and Flamingo Washes in Clark County, southern Nevada. The washes emanate from the surrounding mountains and flow eastward through the developed rural and urban downtown areas to the confluence with Las Vegas Wash.

DESCRIPTION: The recommended plan will provide urban flood reduction, erosion control and wildlife enhancement for portions of Las Vegas and the surrounding areas to the west and southwest, including the rapidly developing alluvial fan immediately west of Las Vegas. The plan recommends construction of three debris basins, three detention basins, modifications to two existing detention basins, 28 miles of channels connecting these project elements, environmental mitigation, and recreation facilities. This system of basins will accept the flows from the primary channels, collect and detain them, and then release them at non-damaging rates of flow from Tropicana Detention Basin. A system of three debris basins will trap large bedloads and prevent erosion damage to the project. Environmental mitigation features include compensation for disturbance to the threatened desert tortoise and other impacted significant terrestrial resources. Recreation facilities will include hiking, bicycle and equestrian trails, and picnic areas around the detention basins.

AUTHORIZATION: WRDA 1992; WRDA 1996; WRDA 1999; Consolidated Appropriation Resolution, 2003, PL 108-7 Sec 107; and EWDA 2006 Sec 124.

REMAINING BENEFIT - REMAINING COST RATIO: 4.7 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 1.06 to 1 at 7 percent.

INITIAL BENEFIT-COST RATIO: 1.11 to 1 at 7 percent (FY 1994).

BASIS OF BENEFIT-COST RATIO: The benefit-cost ratio is based on the Chief of Engineers' Report dated January 1992, at 1991 price levels.

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST	STATUS (1 Jan 2006)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	\$ 259,100,000			Channels	94%	Jan 2007
Estimated Non-Federal Cost	91,100,000	<u>1/</u>		Detention Basins	95	Jan 2007
Cash Contributions	\$ 28,500,000			Debris Basins	88	Jan 2007
Other Costs	62,600,000			Recreation Facilities	0	TBD
Total Estimated Project Cost	\$ 350,200,000			Mitigation	100	Sep 1995
				Entire Project	90%	TBD
Allocations to 30 September 2003	\$ 173,403,000					
Allocations for FY 2004	\$ 24,507,000					
Allocations for FY 2005	\$ 14,321,000					
Conference Allowance for FY 2006	17,000,000		1/	Excludes the cost of the lateral collector system. (See STATUS OF LOCAL COOPERATION.)		
Allocation for FY 2006	14,430,000	<u>2/</u>				
Allocations through FY 2006	226,661,000		88			
Allocation Requested for FY 2007	12,400,000		93	<u>2/</u>	Reflects \$170,000 reduction for Rescission and \$2.4M reprogrammed from the project.	
Programmed Balance to Complete after FY 2007	20,039,000					

PHYSICAL DATA
PRIMARY CHANNELS (Trapezoidal concrete)

RED ROCK CHANNELS:

LOWER RED ROCK CHANNEL COMPLEX

Length: 0.5 mile
Base Width: 10-20 feet
Depth: 15 feet
Depth: 10 feet

UPPER RED ROCK CHANNEL

Length: 0.4 miles
Base Width: 5-10 feet
Depth: 10 feet

RED ROCK BELTWAY CHANNELS

Segment 8
Length: 1 mile
Base Width: 10-20 feet

Segment 9
Length: 1.9 miles
Base Width: 5-15 feet

Segment 10A
Length: 2.7 miles
Base Width: 5-15 feet
Depth: 10 feet

Division: South Pacific

District: Los Angeles
6 February 2006

Tropicana and Flamingo Washes, Nevada

PHYSICAL DATA (Continued)

BLUE DIAMOND CHANNELS:

LOWER BLUE DIAMOND CHANNEL

Length: 1.5 miles
Base Width: 10-20 feet
Depth: 15 feet

BLUE DIAMOND BELTWAY CHANNEL

Segment 7A

Length: 2 miles
Base Width: 5-15 feet
Depth: 10 feet

Segment 7B

Length: 1.6 miles
Base Width: 10-20 feet
Depth: 15 feet

UPPER BLUE DIAMOND CHANNEL

Length: 2.9 miles
Base Width: 5-15 feet
Depth: 10 feet

F-1 DEBRIS BASIN

Type: Basin/earthfill embankment combination,
with dumpstone-revetted embankment
Maximum Height: 30 feet
Length: 700 feet
Basin Capacity: 75 acre-feet

F-2 DEBRIS BASIN

Type: Basin/earthfill embankment combination,
with dumpstone-revetted embankment
Maximum Height: 35 feet
Basin Capacity: 17 acre-feet

Division: South Pacific

FLAMINGO DIVERSION CHANNELS:

LOWER FLAMINGO CHANNEL

Length: 1.6 miles
Base Width: 9-25 feet
Depth: 7-21 feet

UPPER FLAMINGO CHANNEL

Length: 2.1 miles
Base Width: 13-29.5 feet
Depth: 7-13.7 feet

TROPICANA OUTLET CHANNEL:

Length: 1.5 miles
Base Width: 5 feet
Depth: 10 feet

R-4, F-1, F-2 AND F-4 CHANNELS:

Length: 8.9 miles (total)
R-4: 1.6 miles F-2: 1 miles
F-1: 3.1 miles F-4: 3.2 miles
Base Width: 5 feet Depth: 10 feet

DEBRIS BASINS

F-4 DEBRIS BASIN

Type: Basin/earthfill embankment combination,
with dumpstone-revetted embankment
Maximum Height: 25 feet
Basin Capacity: 20 acre-feet

District: Los Angeles
6 February 2006

Tropicana and Flamingo Washes, Nevada

PHYSICAL DATA (Continued)

RED ROCK DETENTION BASIN MODIFICATION

Type: Compacted earthfill embankment
Maximum Height: 60 feet
Length: 4,000 feet
Spillway Length: 940 feet (600 existing, 340 auxiliary)
Basin Capacity: 2,162 acre-feet

FLAMINGO DETENTION BASIN MODIFICATION

Type: Compacted earthfill embankment
Maximum Height: 38 feet
Length: 4,800 feet
Spillway Length: 180-foot-wide labyrinth
Spillway Elevation: 2470.5 feet NGVD
Basin Capacity: 1,706 acre-feet

BLUE DIAMOND DETENTION BASIN

Type: Roller compacted concrete
Maximum Height: 49 feet
Outlet Discharge: 180 cfs
Length: 6,524 feet
Crest Elevation: 2,869 feet NGVD
Basin Capacity: 2,224 acre-feet

RECREATION FACILITIES

Picnic areas around detention basins
Trails: Hiking, bicycle and equestrian

DETENTION BASINS

R-4 DETENTION BASIN

Type: Compacted earthfill embankment
Maximum Height: 38 feet
Length: 2,000 feet
Outlet discharge: 360 cfs
Spillway length: 835 feet RCC stepped
Spillway elevation: 3075.78 feet NGVD
Basin Capacity: 391 acre-feet

TROPICANA DETENTION BASIN

Type: Compacted earthfill embankment/roller
compacted concrete
Maximum Height: 10 feet
Outlet Discharge: 500 cfs
Length: 3,300 feet
Spillway Length: 3,300 feet
Spillway Elevation: 2,290 feet NGVD
Basin Capacity: 825 acre-feet

MITIGATION

Habitat of threatened desert tortoise
Permanent disturbance: 730 acres
Temporary disturbance: 215 acres

JUSTIFICATION: Construction of the authorized plan would provide a 100-year level of flood protection to the developing alluvial fan area and to portions of the existing developed urban community. The population of the Las Vegas Valley has increased from 94,000 in 1959 to over 1.6 million in 2003 and is expected to exceed 2 million by the year 2015, greatly increasing the potential for and severity of urban flood damages along Tropicana and Flamingo Washes. The present value of structures and contents in the overflow area is about \$2.5 billion. Most major flooding events result from heavy local summer thunderstorms. The July 1975 flood caused \$5 million in damages, \$15.9 million at 2005 prices, throughout the greater Las Vegas communities. The severity of the July and August 1984 flooding and associated damages, estimated at \$6.5 million, \$11.2 million at 2005 prices, resulted in a Presidential Disaster Declaration for Clark County, including the Las Vegas Valley, in September 1984. In June 1985, the Clark County Regional Flood Control District was created by the Nevada State Legislature to provide an effective organization to address the flood problems in Clark County. The flood control district completed a Flood Control Master Plan in May 1986, which identifies a recommended plan for the Las Vegas Valley. The floods of June-July 1990 caused three fatalities and approximately \$7.6 million in damages, \$11.5 million at 2005 prices. The flood of July 1999 exceeded a 100-year storm event, caused two fatalities and approximately \$21 million in damages to residential areas and businesses. The severity of this flood resulted in a Presidential Disaster Declaration for Clark County and immediate mobilization of the Emergency Management Agency and the Corps of Engineers disaster teams. During floods in 2003 and 2004 the partially complete Tropicana and Flamingo Washes Project performed well and sustained no significant damage. Average annual benefits, at October 1991 price levels, are \$25,646,000, all flood control. Future benefits are more than 20 percent of total project benefits. Future benefits are based on savings in future flood proofing costs, which would be incurred without the project. The project does not directly or indirectly induce floodplain development.

FISCAL YEAR 2006: Current year funds will be used to:

Continue construction of the F4 Basin and Channel	\$ 7,980,000
Complete Upper Blue Diamond contract	450,000
Section 211 Reimbursement	3,000,000
Planning, Engineering and Design	1,500,000
Construction Management	1,500,000
Total	\$14,430,000

FISCAL YEAR 2007: The requested amount will be applied as follows:

Complete construction of the F4 Debris Basin and Channel	\$ 8,400,000
Section 211 Reimbursement for work performed in FY 2007	2,000,000
Planning, Engineering and Design	1,000,000
Construction Management	1,000,000
Total	\$12,400,000

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 (including mitigation).	\$33,200,000	\$
Modify or relocate utilities, roads, bridges (except railroad (bridges), and other facilities, where necessary for the construction of the project.	22,300,000	
Pay 9.2 percent of the cost shown as 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 sponsors' ability to pay as reduced for credit allowed based on prior work (\$1.2M credit for Sponsor's participation in PCT, \$9.906M 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. This amount will be further reduced for credit allowed for the added cost for project channel crossings based on the final credit amount as authorized by Section 107 of the Energy and Water Development Appropriations Act, 2003.	28,500,000	600,000
Pay one-half of the separable costs allocated to recreation and bear all costs of operation, maintenance, repair, rehabilitation and replacement of recreation facilities.	\$7,100,000	
Total Non-Federal Project Costs	\$91,100,000	\$ 600,000

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

STATUS OF LOCAL COOPERATION: The Clark County Regional Flood Control District and the Department of Public Works are the local sponsors for flood control. The Clark County Comprehensive Planning Department is the potential local sponsor for the recreation feature. The Project Cooperation Agreement for flood control was executed on 7 February 1995. The current non-Federal cost estimate of \$83.5 million for flood control, which includes a cash contribution of \$27.6 million, is an increase of \$22.4 million from the non-Federal cost estimate of \$61.1 million noted in the flood control Project Cooperation Agreement, which included a cash contribution of \$45.1 million. The cash contribution is being partially offset by a credit of \$9.9 million allowed for locally constructed flood control work determined to be in accordance with Section 104 of the Water Resources Development Act of 1986 and by a maximum credit of \$16 million allowed for project channel crossings in accordance with PL 108-7 (HJRes 2) Consolidated Appropriations Resolution, 2003. The Section 211 Amendment to the Project Cooperation Agreement was signed on 17 December 1999. The non-Federal sponsor is constructing the lateral collector system, which will exceed \$18 million. The Project Cooperation Agreement for recreation is currently unscheduled.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$259,100,000 is an increase of \$23,100,000 from the latest estimate (\$236,000,000) presented to Congress (FY 2006). This change includes the following items.

Item	Amount
Post Contract Award, Increase due to added project channel crossings Increase in Real Estate and Rec cost estimate	\$23, 100,000
Total	\$23,100,000

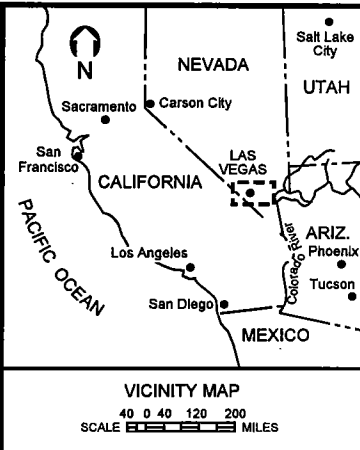
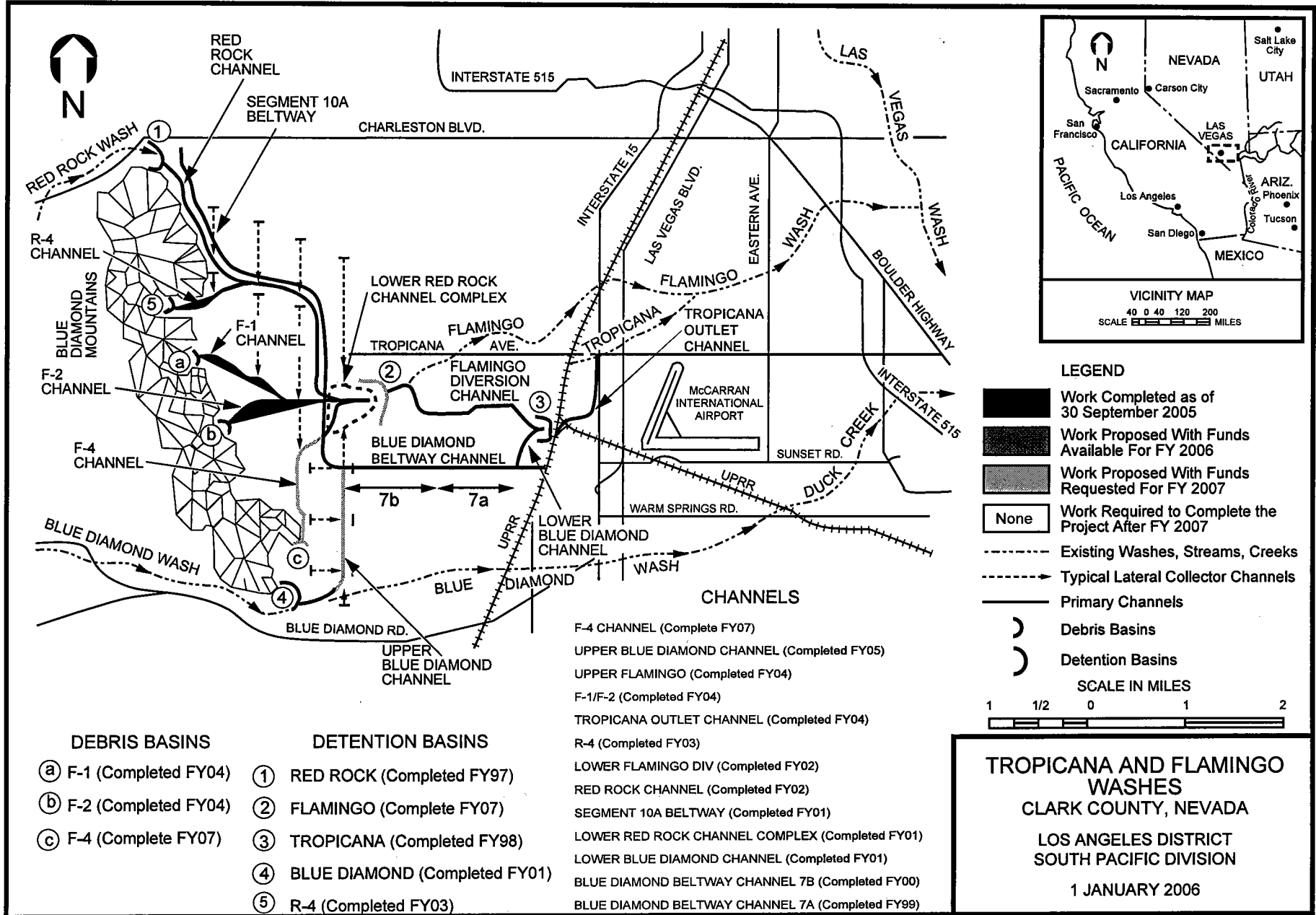
STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final environmental impact statement was filed with the Environmental Protection Agency in October 1991.

OTHER INFORMATION: Funds were appropriated to initiate pre-construction engineering and design in FY 1992 and to initiate construction in FY 1994.

Section 211 of the Water Resources Development Act of 1996 authorized development of flood control projects by non-Federal interests. Section 211(f)(5) specifically names the Tropicana and Flamingo Washes, Nevada, Project to demonstrate the potential advantages and effectiveness of non-Federal implementation, and further states that, subject to amounts being made available in advance in appropriations, the Secretary may reimburse without interest, to the non-Federal interest an amount equal to the estimated Federal share of the cost of such work, if such work is later recommended by the Chief of Engineers, and approved by the Secretary. The Section 211 amendment to the Project Cooperation Agreement was signed 17 September 1999. The estimated Federal share is approximately \$27 million. Partial reimbursement of \$13.5 million has been made through Fiscal Year 2005.

The Tropicana and Flamingo Washes Recreation Formulation Report is currently awaiting for a letter of intent from the sponsors to proceed further. This report will be used as the basis to support a Project Cooperation Agreement for the recreation purpose.

Total estimated project costs are not projected to exceed the authorized maximum project limit. Earliest attainable completion FY for the physical completion of the flood control facilities is FY07.



LEGEND

- Work Completed as of 30 September 2005
- Work Proposed With Funds Available For FY 2006
- Work Proposed With Funds Requested For FY 2007
- None
- Existing Washes, Streams, Creeks
- Typical Lateral Collector Channels
- Primary Channels
- Debris Basins
- Detention Basins

SCALE IN MILES
1 1/2 0 1 2

- | DEBRIS BASINS | DETENTION BASINS |
|--------------------------|-----------------------------------|
| (a) F-1 (Completed FY04) | (1) RED ROCK (Completed FY97) |
| (b) F-2 (Completed FY04) | (2) FLAMINGO (Complete FY07) |
| (c) F-4 (Complete FY07) | (3) TROPICANA (Completed FY98) |
| | (4) BLUE DIAMOND (Completed FY01) |
| | (5) R-4 (Completed FY03) |
-
- | |
|--|
| F-4 CHANNEL (Complete FY07) |
| UPPER BLUE DIAMOND CHANNEL (Completed FY05) |
| UPPER FLAMINGO (Completed FY04) |
| F-1/F-2 (Completed FY04) |
| TROPICANA OUTLET CHANNEL (Completed FY04) |
| R-4 (Completed FY03) |
| LOWER FLAMINGO DIV (Completed FY02) |
| RED ROCK CHANNEL (Completed FY02) |
| SEGMENT 10A BELTWAY (Completed FY01) |
| LOWER RED ROCK CHANNEL COMPLEX (Completed FY01) |
| LOWER BLUE DIAMOND CHANNEL (Completed FY01) |
| BLUE DIAMOND BELTWAY CHANNEL 7B (Completed FY00) |
| BLUE DIAMOND BELTWAY CHANNEL 7A (Completed FY99) |

TROPICANA AND FLAMINGO WASHES
CLARK COUNTY, NEVADA
 LOS ANGELES DISTRICT
 SOUTH PACIFIC DIVISION
 1 JANUARY 2006

FLOOD AND COASTAL STORM DAMAGE REDUCTION

CONSTRUCTION

SOUTHWESTERN DIVISION

APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: Brays Bayou, Houston, Texas (Continuing)

LOCATION: The project is located in the metropolitan area of Houston, in Harris County, Texas.

DESCRIPTION: The authorized project provided for 3 miles of channel improvements, 3 flood detention basins, 7 miles of stream diversion, and recreation features including hike-and-bike trails, picnic facilities, sports fields, comfort stations and parking areas. As stated in the Water Resources Development Act of 1996, Section 211, subject to the approval of the Secretary of the Army, the non-Federal interest may design and construct an alternative to the diversion (downstream) component. The recommended plan developed by the sponsor includes all the features of the authorized plan with an alternative to the diversion (downstream) component that consists of 15.7 miles of earthen channel modifications, replacement and/or lengthening of 27 bridges, and 1,900 acre-feet of stormwater detention on a tributary (Willow Waterhole).

AUTHORIZATION: Water Resources Development Act of 1990.

REMAINING BENEFIT-REMAINING COST RATIO: 6.0 to 1 at 7 percent for Upstream Component (3.3 to 1 at 7 percent for total project)

TOTAL BENEFIT-COST RATIO: 3.84 to 1 at 7 percent for Upstream Component (3.3 to 1 at 7 percent for total project)

INITIAL BENEFIT-COST RATIO: 2.97 to 1 at 7 5/8 percent for total project (FY 1998).

BASIS OF BENEFIT-COST RATIO: Benefits are from the latest economic analysis included in the comprehensive Feasibility Report for Buffalo Bayou and Tributaries, dated July 1990 with October 1989 price levels.

SUMMARIZED FINANCIAL DATA

Estimated Federal Cost	326,420,000	
Estimated Non-Federal Cost	172,100,000	
Cash Contributions	27,830,000	
Other Costs	144,270,000	
Total Estimated Project Cost	\$498,520,000	
Allocations to 30 September 2003	17,923,000	
Allocation for FY 2004	5,237,000	
Allocation for FY 2005	8,884,000	
Conference Allowance for FY 2006	11,800,000	
Allocation for FY 2006	11,682,000	1/
Allocations through FY 2006	43,726,000	13%
Allocation Requested for FY 2007	20,000,000	19%
Programmed Balance to Complete after FY 2007	76,729,000	
Unprogrammed Balance to Complete after FY 2007	185,965,000	2/

1/ Reflects \$118,000 reduction for rescission in accordance with Section 3801 of P.L. 109-148.

2/ Unprogrammed balance is for Downstream Component.

**ACCUM
PCT OF EST
FED COST**

**STATUS
(1 Jan 2006)**

**PCT
CMPL**

**PHYSICAL
COMPLETION
SCHEDULE**

Upstream Component	85%	To be determined
Downstream Component	5%	To be determined
Entire Project	45%	To be determined

PHYSICAL DATA

Channel:

- (Upstream Component)
 - Brays Bayou – 3.7 miles
 - Detention Basins - 3
- (Downstream Component)
 - Detention Basins - 1
 - Brays Bayou – 15.7 miles
 - Bridge replacements/modifications – 27
 - Recreation facilities Hike-and-bike trails with picnic facilities, sports fields, and other day-use facilities.

JUSTIFICATION: Brays Bayou drains about 137 square miles in the south-central portion of the Buffalo Bayou watershed. The area is subject to rainstorms throughout the year and urban flooding is a common occurrence. 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, annualized at a 7-3/8% interest rate and based on October 1989 prices are as follows:

Annual Benefits	Amount
Flood Damage Prevention	\$ 87,268,400
Recreation	1,623,700
Total	\$ 88,892,100

FISCAL YEAR 2006: The total program amount of \$11,682,000 will be used to reimbursement the Harris County Flood Control District (non-Federal Sponsor) for Federal share of the Upstream Component construction work completed in FY05 and FY06 as follows to include oversight and coordination.

Upstream Construction:

Reimbursement for completed FY05 work for DS #10 - Old Westheimer Road Basin & Control Structure & DS #14 - Old Westheimer to Hwy 6	\$ 1,536,000
Reimbursement for completed FY05 work for DS #13 – Eldridge Road Basin, Comp2 Phase3	3,423,000
Reimbursement for completed FY05 work for DS #18 – Arthur Story Park, D122 & finish Comp 3&4	2,173,000
Reimbursement for completed FY06 work for DS #21 – Old Westheimer, Complete E014/DS #14	1,140,000
Reimbursement for completed FY06 work for DS #20 – Eldridge Road, Complete E013/DS #13	2,185,000
Partial Reimbursement for completed FY06 work for DS #12 – Arthur Story Park, Comp 1&2, Ph6	875,000
Federal Oversight	350,000
Total	\$11,682,000

FISCAL YEAR 2007: The total program amount of \$20,000,000 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 2007 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.

Upstream Construction:

Reimbursement for completed FY07 work for DS #16 – Eldridge Road, Comp2 Ph1&2&5, & Comp3	14,000,000
Reimbursement for completed FY07 work for DS #22 – Arthur Story Park, Complete E018/DS#18	1,000,000
Reimbursement for completed FY07 work for DS #17 – Eldridge Road, Comp1 D129 Weir & Structure	4,900,000
Federal Oversight	100,000

Division: Southwestern

District: Galveston

Project: Brays Bayou, Houston, Texas

6 February 2006

379

Total

\$20,000,000

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
Upstream Component		
Provide lands, easements, rights-of-way, and borrow and excavated or dredged material disposal areas.	58,560,000	
Modify or relocate, utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	1,570,000	
Pay one-half of the separable costs allocated to recreation and bear all cost of operation, maintenance, repair, rehabilitation and replacement of recreation facilities.	2,655,000	300,000
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.	10,420,000	247,480

Requirements of Local Cooperation (cont'd)	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Downstream Component		
Provide lands, easements, rights-of-way, and borrow and excavated or dredged material disposal areas.	41,350,000	
Modify or relocate, utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	42,790,000	
Pay one-half of the separable costs allocated to recreation and bear all cost of operation, maintenance, repair, rehabilitation and replacement of recreation facilities.	565,000	57,300
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.	14,190,000	371,220
Total Non-Federal Costs	172,100,000	976,000

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 control project is Harris County, acting through 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. The current non-Federal cost estimate of \$73,205,000 for this portion is an increase of \$3,025,000 from the non-Federal cost estimate of \$70,180,000 noted in the PCA. In accordance with Section 211(f) of the Water Resources Development Act of 1996, the sponsor is investigating the Downstream (Diversion) Component in an effort to find an alternative to the authorized project. The results of this effort are scheduled to be submitted to the ASA(CW) for approval in FY06. There is currently no sponsor for the recreation features of the project.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$326,420,000 is an increase of \$16,600,000 from the latest estimate (\$309,820,000) presented to Congress (FY 2006). This change includes the following items.

Item	Amount
Price Escalation on Construction Features for Upstream Component	(+) \$1,788,000
Price Escalation on Construction Features for Downstream Component	(+) \$14,812,000
Total	(+) \$16,600,000

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 Brays Bayou project is divided into two separable elements, an upstream and a downstream component. The upstream component has undergone design, and construction was initiated in FY 98. The downstream component is not supported by the Sponsor or the homeowners in the area, so an alternative must be identified to provide a level of protection to this portion of the Houston area. The Harris County Flood Control District (HCFCD), the local sponsor, is currently conducting reformulation studies, and has proposed an alternative to the downstream component consisting of 15.7 miles of earthen channel modifications, replacement and/or lengthening of 27 bridges, and 1,900 acre-feet of storm water detention on a tributary (Willow Waterhole). Approval of the General Reevaluation Report containing the recommended plan is scheduled for fiscal year 2006.

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 HCFCD will receive reimbursement upon completion and approval of discrete segments of the authorized project. 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. Section 102 of Public Law 106-60, the Fiscal Year 2000 Energy and Water Development Appropriations Act placed a limitation on credits and reimbursements for certain agreements proposed for execution after the date of enactment of Public Law 106-60. Section 102 does not apply to the Brays Bayou project (both Components) because the Fiscal Year 1998 Energy and Water Development Act language and Fiscal Year 2000 appropriations showed that Congress concurred with the reimbursement and the proposed Project Cooperation Agreement prior to the September 1999 enactment of Section 102.

Upstream Component

SUMMARIZED FINANCIAL DATA

Estimated Federal Cost		140,455,000
Estimated Non-Federal Cost		73,205,000
Cash Contributions	13,075,000	
Other Costs	60,130,000	

REMAINING BENEFIT-REMAINING COST RATIO: 6.0 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 3.84 to 1 at 7 percent.

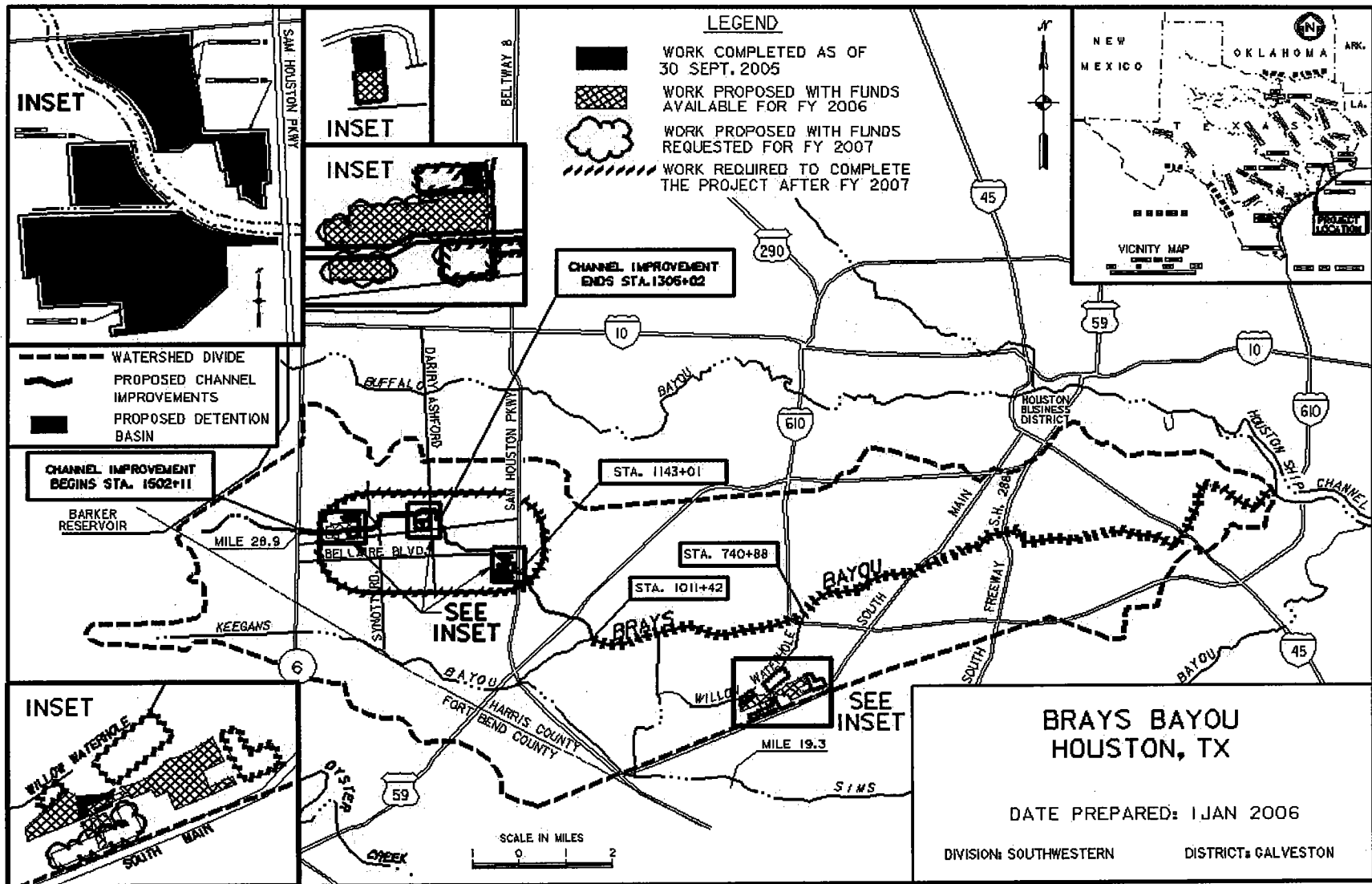
Downstream Component

SUMMARIZED FINANCIAL DATA

Estimated Federal Cost		185,965,000
Estimated Non-Federal Cost		98,895,000
Cash Contributions	14,755,000	
Other Costs	84,140,000	

REMAINING BENEFIT-REMAINING COST RATIO: 2.4 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 2.12 to 1 at 7 percent.



APPROPRIATION TITLE: Construction, General - Dam Safety Assurance.

PROJECT: Canton Lake, Oklahoma, (Dam Safety), (Construction)

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 earthfill 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, seepage, and seismic deficiencies consists of anchoring the existing spillway to improve sliding stability, acquisition of real estate and construction of .75 mile of paved roadway, construction of a 3 mile seepage berm at the toe of the existing earthen embankment using excavated material from the right side abutment, and constructing an auxiliary spillway to increase discharge to meet discharge capacity during a probable maximum flood event.

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.

SUMMARIZED FINANCIAL DATA	ACCUM. PCT. OF EST. FED. COST	STATUS (1 Jan 2006)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Original Project		Entire Project	5%	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	\$ 63,200,000			
Future Non-Federal Reimbursement	1,759,000			
Estimated Federal Cost (Ultimate)	61,441,000			
Estimated Non-Federal Cost	1,759,000			
Reimbursements	\$1,580,000			
Water Supply Storage	\$1,759,500			
Total Estimated Remedial or Modification Cost	63,200,000			
Total Estimated Project Cost	\$ 74,410,000			
Allocations to 30 September 2003	2,321,000			
Allocation for FY 2004	1,111,000			
Allocation for FY 2005	133,000			
Conference Allowance for FY 2006	6,000,000			
Allocation for FY 2006	5,940,000			
Allocations through FY 2006	9,505,000	15%		
Allocation Requested for FY 2007	6,000,000	25%		
Programmed Balance to Complete	47,695,000			
Unprogrammed Balance to Complete after FY 2007	0			

PHYSICAL DATA

Anchor Stabilization – Installation of 64 post tensioned tendons with significant subsurface dam instrumentation.

Road Relocation – Procurement of non federal land and the construction of .75 mile of paved roadway with shoulders.

Seepage Berm – Excavation of right abutment material from the location designated for new auxiliary spillway and placement of material at the toe of the earth dam approximately 3 miles long.

Auxiliary Spillway – Construction of either a fused or tainter gated structure with new channel approach and spillway weir.

1/ Funds of \$750,000 provided in the FY 2002 Construction, General Appropriation, Dam Safety and Seepage Program line item.

2/ Reflects \$60,000 reduction for rescission in accordance with Section 3801 of P.L. 109-148.

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 2006: The \$5,940,000 allocated will be applied as follows:

Initiate and complete Anchor Stabilization Contract	\$4,525,000
Continue Plans and Specs for Auxiliary Spillway	1,025,000
Construction Management	390,000
Total	\$ 5,940,000

FISCAL YEAR 2007: The requested amount of \$6,000,000 will be applied as follows:

Acquire real estate and construct new roadway	\$4,800,000
Complete Plans and Specs for Auxiliary Spillway	1,000,000
Construction Management	200,000
Total	\$ 6,000,000

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	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.	\$ 1,759,500	0
Total Non-Federal Costs	\$ 1,759,500	0

The non-Federal sponsor will reimburse its share of construction costs over a period not to exceed 30 years following completion of construction.

Division: Southwestern

District: Tulsa

**Project: Canton Lake, Oklahoma
(Dam Safety)**

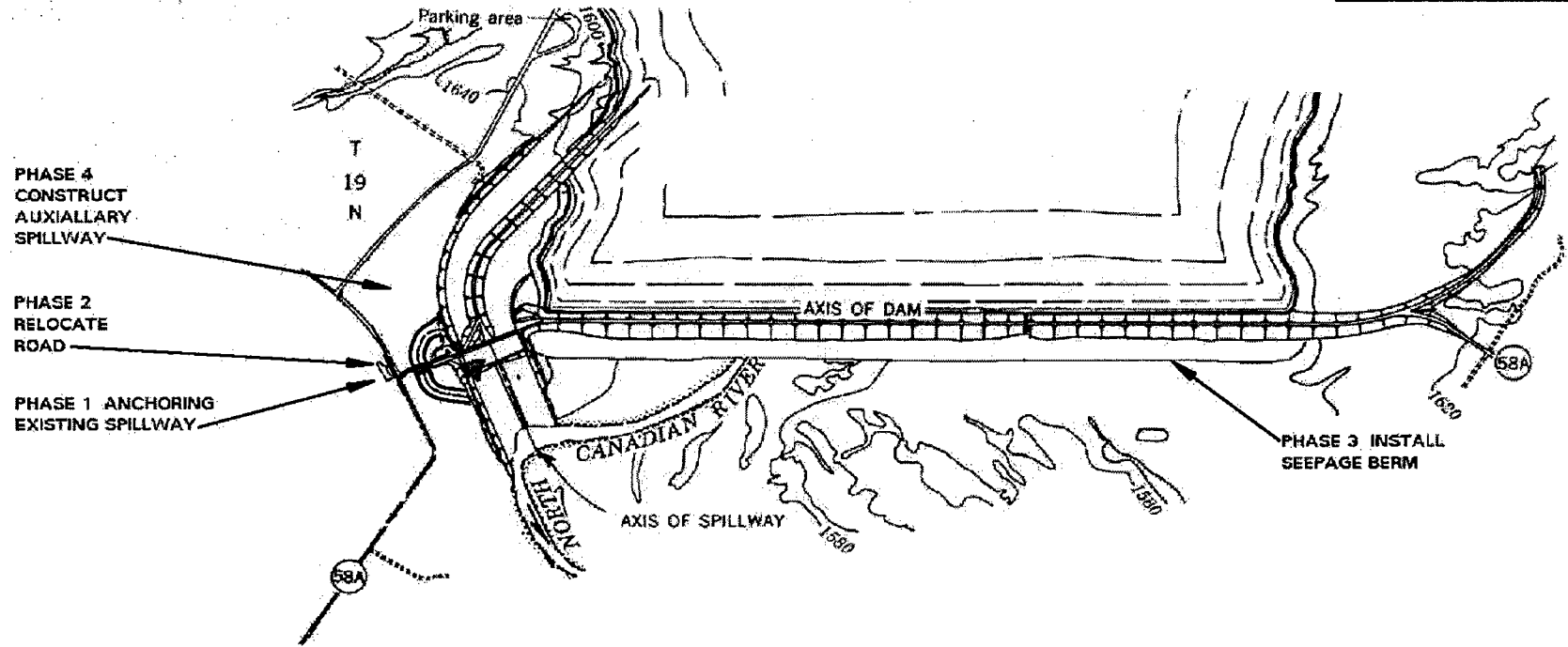
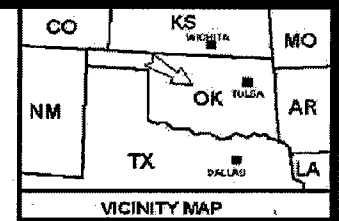
STATUS OF LOCAL COOPERATION: The city of Oklahoma City has 100 percent of the water supply storage under contract. Water supply storage is 25.5 percent of the joint-use costs. Reimbursement payments will be initiated at the completion of construction.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$63,200,000 is an increase of \$17,200,000 from the last estimate presented to Congress (FY 2006). Increase in the estimate is due to inclusion of work required to reduce the seepage and seismic issues into the overall project scope. The remedy of the seepage and seismic issue is to excavate material from near the right abutment and place this material at the toe of the dam for an entire length of 3 miles. The project now addresses all project deficiencies to include stability, hydrologic, seepage and seismic issues.

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.



LEGEND

- PHASE 1 - WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE FISCAL YEAR 2006.
- PHASE 2 - WORK PROPOSED WITH FUNDS REQUESTED FOR THE FISCAL YEAR 2007.
- PHASE 3 & 4 - WORK REQUIRED TO COMPLETE THE PROJECT AFTER FISCAL YEAR 2007.

DAM SAFETY ASSURANCE
ARKANSAS RIVER BASIN

CANTON LAKE OKLAHOMA

U.S. ARMY CORPS OF ENGINEERS, TULSA DISTRICT
SOUTHWESTERN DIVISION
1 JANUARY 2006

APPROPRIATION TITLE: Construction, General – Replacement (Reservoirs)

PROJECT: Clearwater Lake Replacement, Missouri (Continuing)

LOCATION: Clearwater Lake is located on the Black River in Wayne and Reynolds Counties in southeast Missouri.

DESCRIPTION: Construct 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 damage reduction 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 since the project is a dam safety assurance project..

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 2006)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	\$90,300,000	Entire Project	1	To be determined
Estimated Non-Federal Cost	0			
Total Estimated Project Cost	\$90,300,000			
Allocations to 30 September 2003	\$ 0			
Allocation for FY 2004	150,000			
Allocation for FY 2005	1,050,000			
Conference Allowance for 2006	22,000,000			
Allocation for FY 2006	21,780,000			
Allocation through FY 2006	22,980,000		27	
Allocation Requested for FY 2007	28,000,000		60	
Programmed Balance to Complete after FY 2007	\$39,320,000			
Unprogrammed Balance to Complete after FY 2007	0			

PHYSICAL DATA
Construct concrete cutoff wall
approximately 1,000,000 sq. ft.

1/ Reflects \$220,000 reduction for rescission in accordance with Section 3801 of P.L. 109-148.

Division: Southwestern

District: Little Rock

Project: Clearwater Lake Replacement

6 February 2006

392

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. 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:

Annual Benefits	Amount
Emergency Action	\$ 162,500
Flood Damage	2,563,900
Foregone Recreation	82,500
Dam Repair	4,363,900
Traffic Delay	-330,978
Total Annual Benefits	\$6,841,822

FISCAL YEAR 2006: The allocated amount of \$21,780,000 will applied as follows:

Construct Cutoff Wall – Phase I	\$16,366,000
Construct Project Construction Office	315,000
Planning, Engineering, and Design	1,235,000
Construction Management	1,545,000
Construct Cutoff Wall – Phase II	2,319,000
Total	\$21,780,000

FISCAL YEAR 2007: The requested amount of \$28,000,000 will applied as follows:

Construct Cutoff Wall – Phase II	\$26,080,000
Planning, Engineering, and Design	330,000
Construction Management	1,590,000
Total	\$28,000,000

NON-FEDERAL COST: This Replacement project is 100% federally funded.

Division: Southwestern

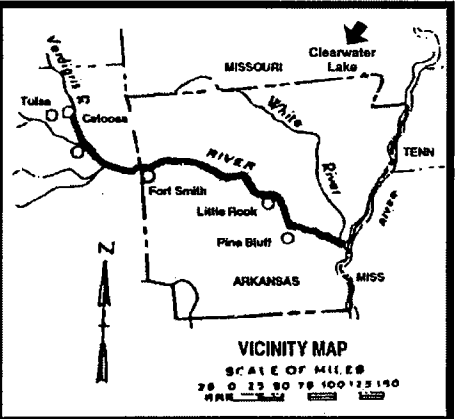
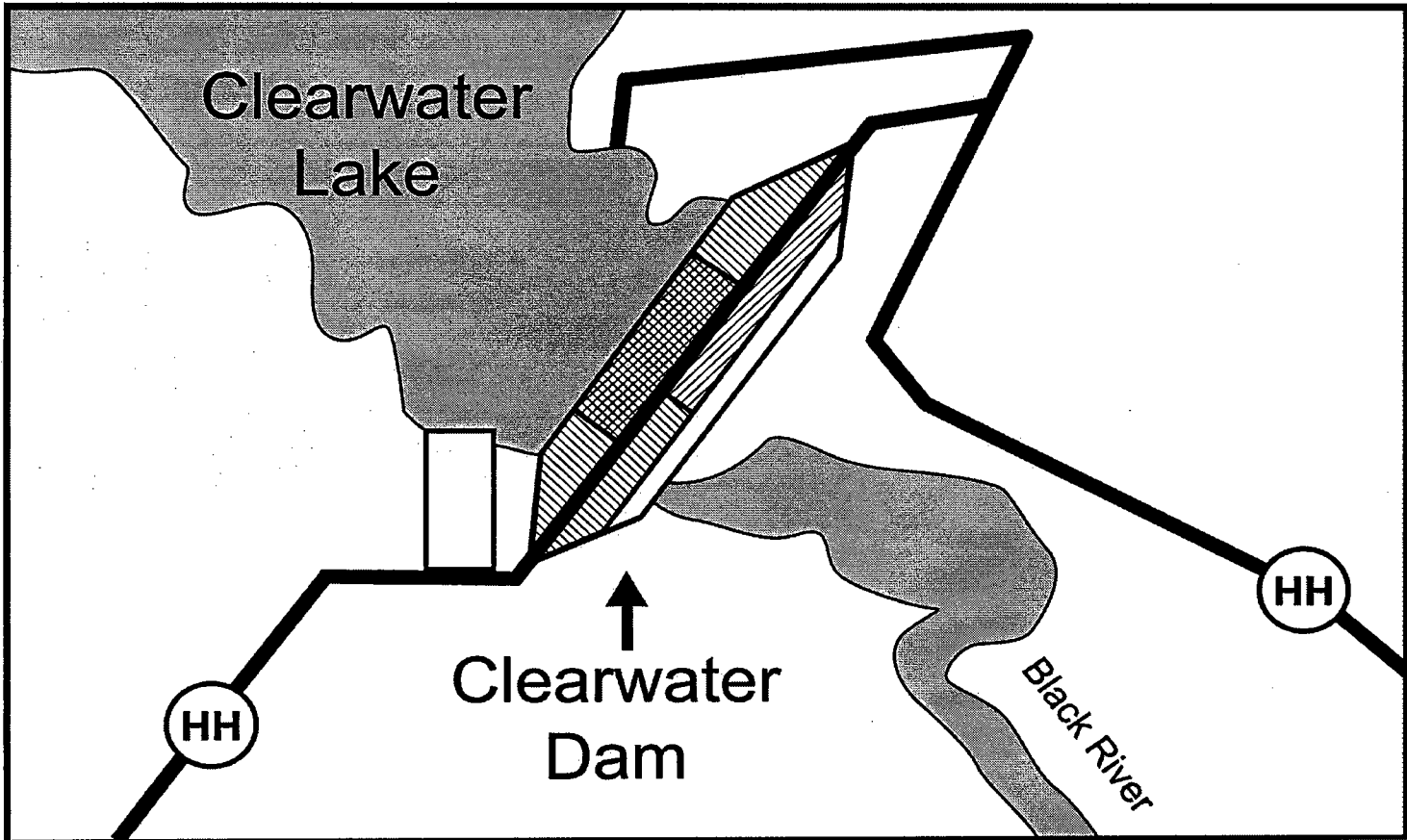
District: Little Rock





Project: Clearwater Lake Replacement

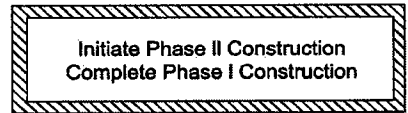
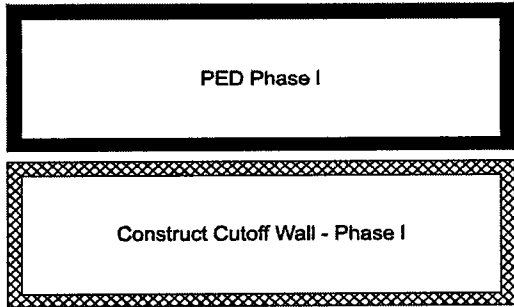
COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$90,300,000 is the latest estimate presented to Congress (FY 2006).

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. The on-going construction phase of the project consists of a 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. Some funds from fiscal year 2006 will be carried over into fiscal year 2007 to provide sufficient funds to cover fiscal year 2007 projected contractor earnings on the Phase II Cutoff Wall contract.



-  Work complete as of Jan 2005
-  Work proposed with funds available for FY 2006
-  Work proposed with funds available for FY 2007
-  Work required to complete the project after 2007



WHITE RIVER BASIN
CLEARWATER LAKE
MISSOURI
(MAJOR REHAB)
 U.S. ARMY ENGINEER DISTRICT LITTLE ROCK
 U.S. ARMY ENGINEER DIVISION, SOUTHWESTERN
 1 JANUARY 2006

APPROPRIATION TITLE: Construction, General – Local Protection (Flood Control)

PROJECT: Johnson Creek, Upper Trinity Basin, Arlington, TX (Continuing)

LOCATION: Arlington, Texas, part of the Dallas/Fort Worth metroplex in northern Texas.

DESCRIPTION: The Johnson Creek project includes a buy-out of 140 structures for flood damage reduction, 155 acres of ecosystem restoration, and 2.25 miles of linear recreation features. The buy-out would prevent damages during a 25-year flood event.

AUTHORIZATION: Public Law 106-53, Section 101(b) (14); Public Law 109-103, Section 134.

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable, because a significant portion of the remaining work is for ecosystem restoration.

TOTAL BENEFIT-COST RATIO: 1.5 to 1 at 7 percent. (For the flood damage reduction and recreation features).

INITIAL BENEFIT-COST RATIO: 1.5 to 1 at 7-1/8 percent.

BASIS OF BENEFIT-COST RATIO: Benefits are from the latest available evaluation approved in the Interim Feasibility Report dated March 1999.

SUMMARIZED FINANCIAL DATA		ACCUM. PCT. OF EST FED. COST	STATUS (1 Jan 2006)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	21,605,000		Entire Project	65	To be determined
Estimated Non-Federal Cost (Sponsor)	9,157,000				
Cash Contributions	3,615,000				
LERRDs	19,516,000				
Reimbursable	(13,974,000)				
Total Estimated Project Cost	30,762,000				

PHYSICAL DATA

Buy-out of 140 structures for flood damage reduction
Ecosystem restoration of 155 acres
2.25 miles of linear recreation

Division: Southwestern

District: Fort Worth

Project: Johnson Creek, Arlington, Texas
Upper Trinity River Basin

6 February 2006

396

SUMMARIZED FINANCIAL DATA (Continued)

		ACCUM. PCT. OF EST FED. COST
Allocations to 30 September 2003	15,321,000	
Allocation for FY 2004	480,000	
Allocation for FY 2005	1,644,000	
Conference Allowance for FY 2006	375,000	
Allocation for FY 2006	371,000	1/
Allocations through FY 2006	17,816,000	83
Allocation Requested for FY 2007	500,000	85
Programmed Balance to Complete After FY 2007	3,289,000	
Unprogrammed Balance to Complete After FY 2007	0	0

1/ Reflects \$4,000 reduction for rescission in accordance with Section 3801 of P.L. 109-148.

JUSTIFICATION: The Johnson Creek watershed, which has a drainage area of 21 square miles, lies principally in Tarrant County with a small portion lying in Dallas County. Much of the watershed, which is extensively developed, is being used for industrial, residential, commercial, and recreational activities. The Six Flags Over Texas Amusement Park, the Amerquest Field in Arlington, the proposed Dallas Cowboys football stadium, and the Arlington Convention Center are all located along the banks of Johnson Creek. A total of 556 structures, with an estimated total value of \$66.6 million, were identified within the Standard Project Flood limits of Johnson Creek. Historically, numerous flood events have occurred along Johnson Creek. The flood of record which damaged 175 structures and overtopped the eight major bridges by as much as five feet occurred on 16-17 May 1989. The flood of 26-27 March 1977 inundated about 70 homes, and one person drowned. The average annual benefits are \$1,910,000 based on October 1998 price levels.

Annual Benefits	Amount
Flood Damage Reduction	\$ 791,000
Recreation	1,119,000
Total	\$ 1,910,000

Ecosystem Restoration – net increase of 117 Average Annual Habitat Units

FISCAL YEAR 2006: Funds of \$371,000 are being used to complete demolition of the last few structures that have been acquired by the City, terminate the ongoing Phase I construction contract – for work that had been planned in the ecosystem restoration area deauthorized by Public Law 109-103, Section 134, and participate in the study to identify acceptable replacement lands for the 90 acres of ecosystem restoration lands that were deauthorized by Section 134.

FISCAL YEAR 2007: The requested amount will be applied as follows:

Continue Phase II Ecosystem Restoration	\$ 450,000
Construction Management	50,000
Total	\$ 500,000

NON-FEDERAL COST: In accordance with 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, road, bridges and other facilities, where necessary, for the construction of the project.	\$ 7,669,000	\$ 0
Pay 35 percent of Flood Damage Reduction; bear all costs of operation, maintenance, repair, rehabilitation and replacement of project features.	0	32,700
Pay 35 percent of Ecosystem Restoration; bear all costs of operation, maintenance, repair, rehabilitation and replacement of project features.	0	17,600
Pay 50 percent of the separable costs allocated to recreation plus 100 percent of recreation costs above Federal limit; bear all costs of operation, maintenance, repair, rehabilitation and replacement of project features.	1,458,000	55,000
Total Non-Federal Costs	\$ 9,157,000	\$ 105,300

The non-Federal sponsor will make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: The city of Arlington, Texas, signed the Project Cooperation Agreement on 1 December 2000. The city of Arlington is funding the non-Federal portion of this project through the sale of bonds and certificates of obligation. The city, through approval of a Section 104 agreement, has already expended \$7,528,000 on the project.

Division: Southwestern

District: Fort Worth

**Project: Johnson Creek, Arlington, Texas
Upper Trinity River Basin**

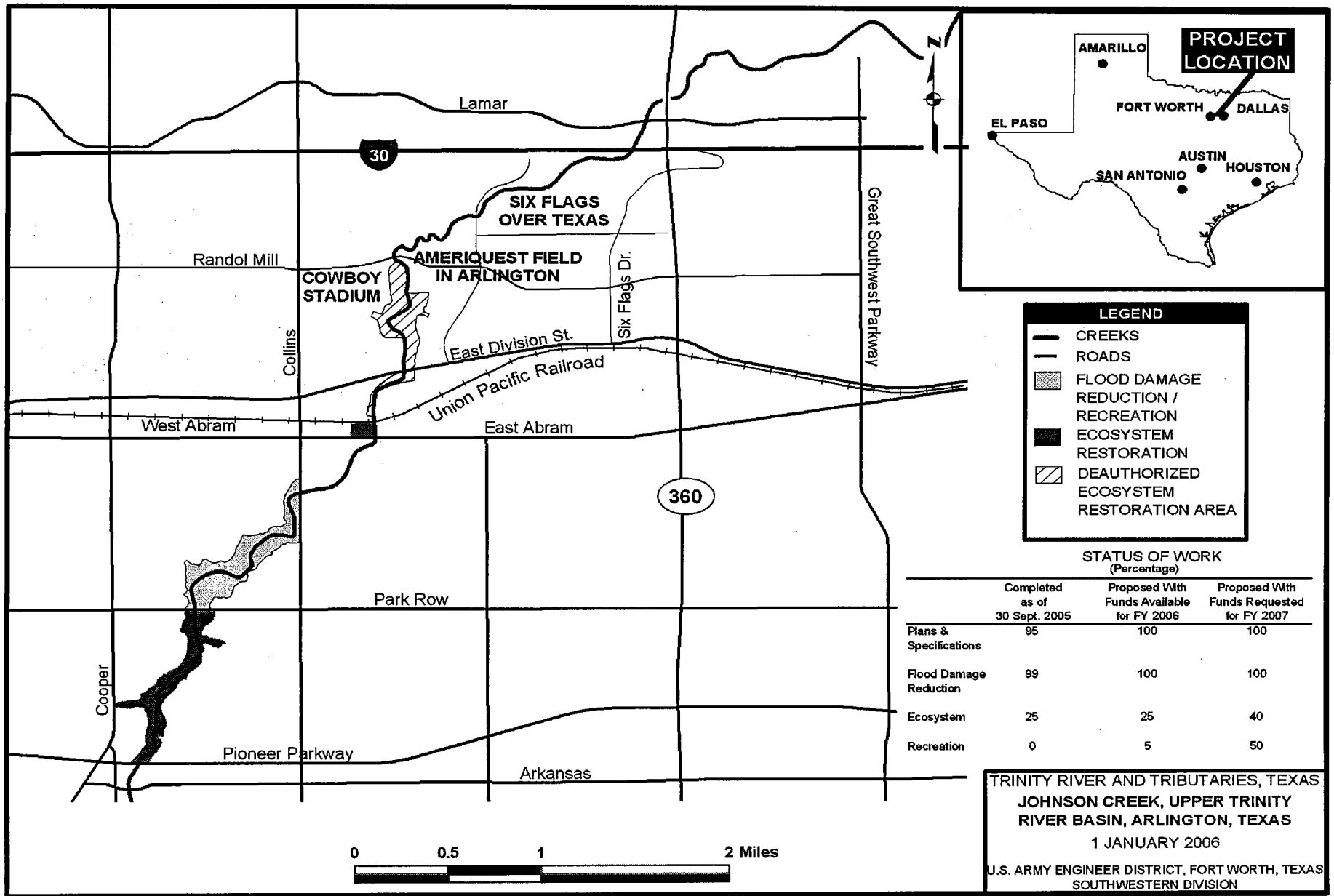
6 February 2006

398

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal (Corps of Engineers) cost estimate of \$21,605,000 is an increase of \$939,000 over the latest estimate of \$20,666,000 submitted to Congress in Fiscal Year 2006. The estimate of the project cost has increased from \$29,717,000 to \$30,762,000 due to actual cost of acquisition and construction of the Ecosystem Restoration features.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Finding of No Significant Impact was prepared as part of the Environmental Assessment and was executed on 4 September 1998. Fish and wildlife mitigation is not required for this non-structural project.

OTHER INFORMATION: The Assistant Secretary of the Army, Civil Works, approved a Section 104, Public Law 99-662, General Credit for Flood Control, on 5 February 1997. Funds to initiate construction were appropriated in Fiscal Year 2000. Public Law 109-103, Section 134, provided language deauthorizing 90 acres of the original 156 acres of environmental restoration lands within the Johnson Creek watershed set aside to provide ecosystem restoration benefits and authorized the non-Federal sponsor to identify at least 90 acres of replacement lands within the city of Arlington, Texas that will provide the same or greater level of benefits. As described in the Fiscal Year 2006 section earlier, funds are being used to implement the authorized changes.



APPROPRIATION TITLE: Construction General - Local Protection (Flood Control)

PROJECT: Sims Bayou, Houston, TX (Continuing)

LOCATION: The project is located in Harris County, in the southern portion of Houston, Texas.

DESCRIPTION: The project provides flood damage reduction and consists of 19.3 miles of channel enlargement, rectification, and erosion control measures. Environmental quality measures, riparian habitat improvements, and recreational features are also included in the project.

AUTHORIZATION: Water Resources Development Act (WRDA) of 1986, Energy and Water Development Appropriations Act of 1990, and WRDA of 1992.

REMAINING BENEFIT-REMAINING COST RATIO: 26.0 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 8.87 to 1 at 7 percent.

INITIAL BENEFIT-COST RATIO: 9.3 to 1 at 8 5/8 percent (FY 1990).

BASIS OF BENEFIT-COST RATIO: Benefits are from Supplement 1 to the General Design Memorandum dated May 1993 at October 1992 price levels. Costs are based on the GDM Supplement 1 at October 1992 price levels.

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST	STATUS (1 Jan 2006)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	246,600,000		Entire Project	72%	To be determined
Estimated Non-Federal Cost	121,810,000				
Cash Contribution	21,790,000				
Other Costs	100,020,000				
Total Estimated Project Cost	368,410,000				
Allocations to 30 September 2003	132,203,000				
Allocations for FY 2004	10,676,000				
Allocations for FY 2005	12,837,000				
Conference Allowance for FY 2006	18,000,000				
Allocation for FY 2006	17,820,000 ^{1/}				
Allocations through FY 2006	173,536,000	70%			
Allocation Requested for FY 2007	22,400,000	79%			
Programmed Balance to Complete after FY 2007	50,664,000				
Unprogrammed Balance to Complete after FY 2007	0				

PHYSICAL DATA

Channels:
 Sims Bayou - 19.3 miles
Relocations:
 Railroad bridges
Utilities
 Roads
Recreation facilities:
 Hike-and-bike trails with picnic and
 other day-use facilities

^{1/} Reflects \$180,000 reduction for rescission in accordance with Section 3801 of P.L. 109-148.

JUSTIFICATION: The project will reduce stream flooding from 14,800 acres of urban lands and beneficially affect nearly 78,000 persons living in 29,000 homes. The 100-year flood plain would be reduced to 2,300 acres outside the required rights-of-way. The recreational development will partially satisfy existing demand in the area. Average annual benefits, annualized at an 8-5/8% interest rate and based on October 1992 prices are as follows:

Annual Benefits	Amount
Flood Damage Prevention	219,344,700
Recreation	945,300
Total	220,290,000

FISCAL YEAR 2006: The \$17,820,000 will be used as follows:

Complete construction of Cullen to State Highway 288	\$ 3,878,000
Continue construction of Reach 7a, State Highway 288 to Robin Boulevard	3,946,000
Initiate and complete construction of Sediment Removal & Channel Repairs	5,780,000
Planning, Engineering, and Design	1,518,000
Construction Management	1,600,000
Construct MLK Plug Removal Contract	1,098,000
Total	\$17,820,000

FISCAL YEAR 2007: The requested amount of \$22,400,000 will be applied as follows:

Complete construction of Reach 7a, State Highway 288 to Robin Boulevard	2,628,000
Construct MLK Plug Removal Contract	1,482,000
Initiate and complete construction of Reach 7b, Robin to Hiram Clarke	15,173,000
Planning, Engineering, and Design	1,517,000
Construction Management	1,600,000
Total	\$22,400,000

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.	44,650,000	
Modify or relocate, utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	55,050,000	
Pay one-half of the separable costs allocated to recreation and bear all cost of operation, maintenance, repair, rehabilitation and replacement of recreation facilities.	3,740,000	139,000
Pay 5 percent of the costs allocated to flood control, and bear	18,050,000	331,000
Division: Southwestern	District: Galveston	Project: Sims Bayou, Houston, Texas

all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.

Credit for preparation of the dredged material disposal area for the Mouth to PTRR reach and completed miscellaneous engineering and design activities. 320,000

Total Non-Federal Costs 121,810,000 470,000

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 control project is Harris County. The current non-Federal cost estimate of \$121,810,000 for flood control, which includes a cash contribution of \$21,790,000, is an increase of \$35,210,000 from the non-Federal cost estimate of \$86,600,000 noted in the Local Cooperation Agreement (LCA), which reflected a cash contribution of \$13,800,000. In a letter dated 19 September 1991, the non-Federal sponsor indicated that it is financially capable and willing to contribute the increased non-Federal share. Analysis (dated 31 October 1991) of the non-Federal sponsor's financial capability to participate in the project reaffirms that the sponsor has a reasonable and implementable plan for meeting their financial commitment as expressed in the LCA. In 1993, the City of Houston indicated its desire to sponsor the recreation features for the project. In April 1999 the City provided a letter indicating its renewed interest in sponsorship. The recreational features have been developed and compiled in a Limited Reevaluation Report (LRR), which underwent an Independent Technical Review (ITR) in June 2005. The LRR is anticipated to be approved in February 2006.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$246,600,000 is an increase of \$2,390,000 from the latest estimate (\$244,210,000) presented to Congress (FY 2006). This change includes the following items.

Item	Amount
Price Escalation on Construction Features	(+) 2,390,000
Total	(+) \$ 2,390,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement was filed with the Environmental Protection Agency in September 1983.

OTHER INFORMATION: Funds to initiate preconstruction planning were appropriated in Fiscal Year 1986 and funds to initiate construction were appropriated in Fiscal Year 1990. Some funds from fiscal year 2006 will be carried over into fiscal year 2007 to provide sufficient funds to fully fund the contract to remove the plug in the vicinity of the MLK bridge.

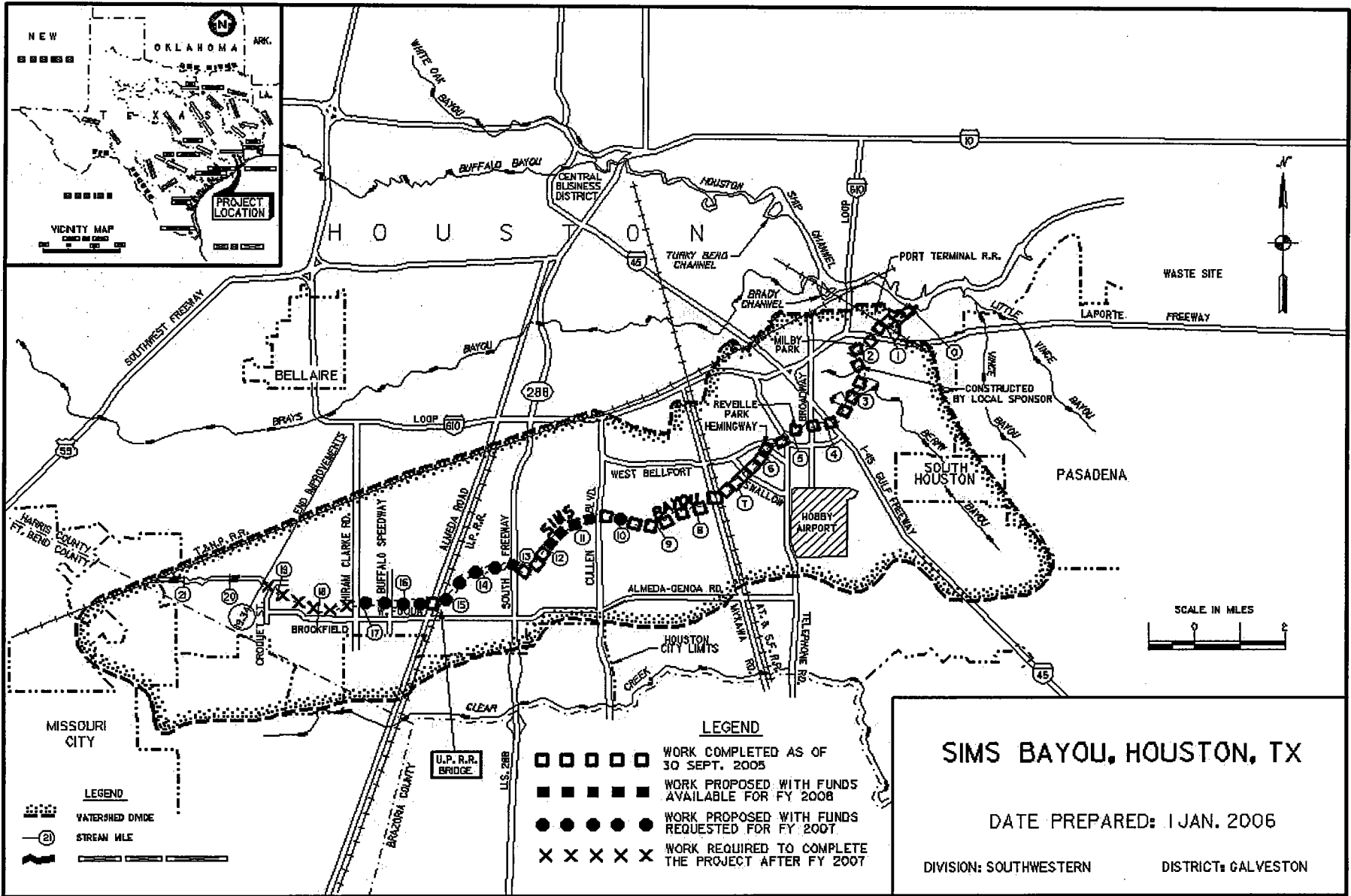
The Assistant Secretary of the Army for Civil Works has approved the sponsor's request for credit for work performed by the local sponsor. This credit is currently estimated at \$20,070,000, exclusive of lands and is being reimbursed during the period of construction. The project authorization was amended by the Energy and Water Development Appropriations Act of 1990 as the project cost estimate exceeded the maximum cost growth as described in Section 902 of the Water Resources Development Act of 1986. The authorization has been further modified by WRDA '92, Section 102 (66), to include, to the extent practicable, measures to improve environmental quality and riparian habitat.

Division: Southwestern

District: Galveston

Project: Sims Bayou, Houston, Texas
404

6 February 2006



OPERATION
AND
MAINTENANCE

**FY 2007 OPERATION AND MAINTENANCE
Flood and Coastal Storm Damage Reduction**

Region 01 New England	13,939,000	3,861,000	17,800,000
Region 02 Mid-Atlantic	14,608,000	3,143,000	17,751,000
Region 03 South Atlantic-Gulf	15,531,000	7,944,000	23,475,000
Region 04 Great Lakes	6,478,000	1,837,000	8,315,000
Region 05 Ohio	52,645,000	4,762,000	57,407,000
Region 06 Tennessee	141,000	0	141,000
Region 07 Upper Mississippi	12,983,000	3,990,000	16,973,000
Region 08 Lower Mississippi	1,723,000	0	1,723,000
Region 09 Souris-Red-Rainy	2,166,000	63,000	2,229,000
Region 10 Missouri	30,322,000	5,610,000	35,932,000
Region 11 Arkansas-White-Red	30,495,000	19,450,000	49,945,000
Region 12 Texas-Gulf	19,052,000	14,925,000	33,977,000
Region 13 Rio Grande	5,680,000	2,832,000	8,512,000
Region 14 Upper Colorado	664,000	58,000	722,000
Region 15 Lower Colorado	2,632,000	485,000	3,117,000
Region 16 Great Basin	703,000	58,000	761,000
Region 17 Pacific Northwest	31,011,000	4,759,000	35,770,000
Region 18 California	22,015,000	6,250,000	28,265,000
Region 19 Alaska	933,000	989,000	1,922,000
Region 20 Hawaii	205,000	0	205,000
Total Flood and Coastal Storm Damage Reduction	263,926,000	81,016,000	344,942,000

REMAINING ITEMS

**FLOOD AND COASTAL STORM DAMAGE REDUCTION
CONSTRUCTION
CONTINUING AUTHORITIES PROGRAM**

APPROPRIATION TITLE: Construction, General, FY 2007

4. Shore Protection Projects

b. Projects Not Specifically Authorized by Congress (Section 103, PL 87-874, as amended)

Allocation 2006	\$6,930,000	Tentative Allocation FY 2007	\$550,000
-----------------	-------------	------------------------------	-----------

GENERAL: Section 103 of the River and Harbor Act of 1962 (PL 87-874), as amended, authorizes up to \$30,000,000 annually for construction of shore restoration and protection projects where not already specifically authorized by Congress. Projects under this special authority are formulated 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 \$3,000,000 per project.

PROPOSED ACTIVITIES FOR FY 2007: The \$550,000 requested for Fiscal Year 2007 is to continue the Section 103 program of development and construction of hurricane and storm damage protection measures along the Nation's shorelines. Proposed allocations to specific projects are as follows: These projects were specifically identified in the Conference Report for FY 2006, and are continuing the same phase in FY 2007.

CONTINUING AUTHORITIES PROGRAM		
SECTION 103		
Name	Phase	Amount (\$000)
Unalakleet Seawall, AK	CON	400
Whiting Shoreline, IN	FEA	150
TOTAL		550

APPROPRIATION TITLE: Construction, General, FY 2007

5. Flood Control Projects

a. Local Protection

(II) Projects Not Specifically Authorized by Congress (Section 205, PL 80-858, as amended)

Allocation FY 2006	\$39,600,000	Tentative Allocation FY 2007	\$16,075,000
--------------------	--------------	------------------------------	--------------

GENERAL: Section 205 of the Flood Control Act of 1948 (PL 80-858), as amended, authorizes up to \$40,000,000 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.

BUDGET REQUEST: The \$16,075,000 requested for Fiscal Year 2007 is to continue the Section 205 program of development and construction of flood damage prevention projects at locations throughout the Nation. Proposed allocations to specific projects are as follows. These projects were specifically identified in the Conference Report for FY 2006, and are continuing the same phase into FY 2007.

CONTINUING AUTHORITIES PROGRAM

Name	Phase	Amount (\$000)
Battle Mountain, NV	CON	344
Beaver Crk, TN	PS	144
Braithwaite Park, LA	PS	575
Burnt Mountain, CA	FEA	64
Cedar Rvr, IA	FEA	150
Chippewa River At Montevideo, MN	CON	1,850
Cosgrove Crk, CA	FEA	100
Denison, IA	CON	469
East Peoria, IL	CON	830
Eureka Creek, KS	FEA	129
Fargo Ridgewood Addition, ND	CON	1,415
Flomar Storm Drain, CA	PS	305
Fort Wayne, IN	FEA	154
Fort Yukon, AK	FEA	100
Haikey Creek, OK	FEA	75
Heacock Channels, CA	PS	900
Jackson Brook, NJ	PS	541
Jean Lafitte, LA	CON	1,782
Keshequa Creek, NY	FEA	400
Kuliouou Stream FDR, HI	FEA	213
Limestone Creek, NY	FEA	200
Little Brazos Rvr, TX	FEA	215
Little Fossil Crk, TX	CON	980
Little Mills Crk, PA (Gravel Road)	CON	500
Livingston Yellowstone, MT	FEA	232
Lower Lycoming Crk, PA	FEA	1,322
Oak Creek, CO	FEA	170
Palai Streams, HI	FEA	30
Salmon River, CT	CON	195
Sandy Creek, TN	FEA	29
Upper Passaic Rvr, NJ (Long Hill Township)	CON	1,225

Waiakea Stream FDR, HI	PS	331
Waialele Stream FDR, HI	PS	225
Winnebago River Levee Improvement, IA	FEA	225
TOTAL		16,075

(III) Emergency Streambank and Shoreline Protection (Section 14, PL 79-526, as amended)

Allocation FY 2006

\$14,850,000

Tentative Allocation FY 2007

\$1,330,000

GENERAL: Section 14 of the Flood Control Act of 1946 (PL 79-526), as amended, authorizes up to \$15,000,000 annually for the construction of emergency bank protection works to prevent flood damages to highways, bridge approaches, public works, churches, hospitals, schools, and other non-profit public services. Each project selected must be economically justified and complete within itself. Federal participation under this authority is limited to a cost of not more than \$1,000,000 at any single locality.

BUDGET REQUEST: The \$1,330,000 requested for Fiscal Year 2007 is to continue the Section 14 program of emergency bank protection construction to prevent flood damages to highways, bridge approaches, and essential public facilities at locations throughout the Nation. Proposed allocations to specific projects are as follows. These projects were specifically identified in the Conference Report for FY 2006, and are continuing the same phase into FY 2007.

CONTINUING AUTHORITIES PROGRAM		
07AND CONTINUING INTO FY 06NAMED FY		
SECTION 14		
Name	Phase	Amount (\$000)
Big Bend, MN	CON	19
Elizabeth River, NJ	PDA	20
I-40 Bridge, NM- A	CON	736
Iowa River, Sac and Fox , IA	PDA	10
Kwethluk, AK	PDA	100
Lake Ontario Albion Water, NY	CON	35
Mt Moriah Culvert, TN	CON	50
Wastewater Plant,, TX	CON	360
TOTAL		1,330

FLOOD AND STORM DAMAGE REDUCTION

REMAINING ITEMS

INVESTIGATIONS

1. Investigations

c. Special Studies

Study	Total Estimated Federal Cost	Allocation Prior to FY 2006	Allocation FY 2006	Tentative Allocation FY 2007	Additional to Complete After FY 2007
National Inventory of Flood/ Storm Damage Reduction Projects	TBD	0	30,000,000 1/	20,000,000	TBD

1/ Supplemental funding appropriated under PL 109-148 included an allocation of \$30 million in the Flood Control and Coastal Emergencies account to initiate work on this effort.

SCOPE:

This is an interagency effort to improve management of the nation's flood and storm damage reduction infrastructure. Specifically, the Corps will coordinate with the Federal Emergency Management Agency (FEMA) as well as non-Federal entities to conduct an inventory of the Nation's vast collection of flood and storm damage reduction structures; to create and populate a central database to house and maintain critical information on these structures and projects; and to develop and test a methodology for assessing the structural and/or operational integrity and associated risk for these existing projects. The results of the national project inventory and risk-based project assessments will be linked to FEMA's ongoing flood mapping program as well as the Corps levee rehabilitation and inspection program, which is funded under the Flood Control and Coastal Emergencies account.

FY 2007 funding builds upon work accomplished using 2006 emergency supplemental appropriations for this effort. The Corps will incorporate strategies and processes used to assess risk and safety of its dams and multi-purpose reservoirs under the National Dam Safety Program, which is funded in the Operation and Maintenance account.

JUSTIFICATION:

Using the Program Assessment Rating Tool, an assessment of the Corps Emergency Management program determined that there exists a need for a comprehensive database for tracking the maintenance and performance of the Nation's flood and storm protection projects, many of which the Corps regularly inspects and/or maintains under its Rehabilitation and Inspection Program. 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 protection projects.

To date, the Corps has constructed over 400 flood control reservoirs and over 9,000 miles of levee and floodwall systems in this country, which account for only a portion of the total number of projects protecting communities across the Nation. Many of these structures protect highly urbanized areas, and all of them require continued maintenance (either by the Federal government or non-Federal interests) after construction in order to provide the intended level of protection.

Maintenance of completed levee/floodwall projects and systems is typically a non-Federal responsibility with oversight provided for eligible projects by the Corps Rehabilitation and Inspection program. This program is authorized to conduct periodic inspection of completed Federal and non-Federal flood control works and to notify appropriate parties of the results of such inspections. The Corps' inspections under this program are designed to determine, from visual inspections, if proper maintenance has been accomplished and that there are no obvious deficiencies. They do not address hydrologic, hydraulic, or geotechnical issues that may require detailed investigations or analyses. The quality of project inspections varies greatly, and often does not involve the necessary geotechnical and hydrologic analysis needed to determine risks to public safety.

Additionally, there may be insufficient communication of the results of these inspections to appropriate parties, such as the National Flood Insurance Program and FEMA's map modernization program, although the Corps has improved coordination with the latter recently. The need for improved inspections and communication of those inspection results is great, as the failure to maintain a levee/floodwall system in sound condition may result in withdrawal of Corps certification that such systems meet the FEMA base-flood (100-year) requirement. Many levee/floodwall structures have been certified by the Corps to provide FEMA base flood protection (100-year) - allowing property owners behind levees to avoid mandatory flood insurance purchase requirements. However, the analyses used to certify these levees may understate the true flood risk, if sufficient hydrologic, hydraulic and geotechnical factors are not rigorously evaluated.

Although individual Corps district and/or division offices maintain records of projects that the Corps inspects under the rehabilitation and inspection program, there currently exists no single, comprehensive database on these and other flood/storm damage reduction projects and their location, condition, owners/operators, and other factors relevant to the performance of these projects.

FY 2006 Accomplishments

FY 2006 supplemental funding enables initiation of this effort. Specifically, the Corps is reviewing and compiling existing project information from across its district and division offices and soliciting information from states and local communities on their project information records; creating and populating the database with such information already on hand or received from state and local entities; and developing, in collaboration with FEMA, an assessment methodology specific to levees and floodwalls. The coordination required for this effort will build upon existing relationships between the Corps and FEMA, which have worked on issues such as residual risk communication, USACE inspection program revision, and linkage to flood mapping efforts. The Corps and FEMA will also work with the National Association of Flood and Stormwater Management Agencies (NAFSMA) and the Association of State Floodplain Managers (ASFPM) to develop a consolidated request for data from regional offices, state offices and local levee owners to ensure the widest practical dissemination of this request.

FY 2007 Activities

Fiscal Year 2007 funding will be used to continue development of the inventory and data base, continue collaborative work with FEMA to develop and initiate testing of a risk assessment methodology for levees and floodwalls, begin preliminary identification of "high risk" levees, and complete a joint residual risk communication strategy.

1. Surveys

c. Special Studies

Study	Total Estimated Federal Cost	Allocation Prior to FY 2006	Allocation FY 2006	Tentative Allocation FY 2007	Additional to Complete After FY 2007
National Shoreline	7,000,000	1,324,000	375,000	375,000	4,926,000

SCOPE:

The study is an interagency effort to determine the extent and cause of shoreline erosion on all the coasts of the United States and to assess the economic and environmental impacts of that erosion. The study will analyze the appropriate Federal and non-Federal roles 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 flow of sediment within littoral systems.

ACCOMPLISHMENTS:

FY 2002 funding initiated work on this study. The Fiscal Year 2006 efforts include:

- 1) Continue monitoring and reviewing progress in the various Regional Sediment Management (RSM) Demonstration projects around the nation and conducting a policy seminar on RMS issues.
- 2) Continue preparation of an interim report describing systematic movement of sand along U.S. Shores
- 3) Continue identifying data availability and data needs in order to complete the update and coordinate data collection and analysis efforts with the U.S. Geological Survey and the National Ocean Service
- 4) Conduct technical forums to identify technical guidelines for collecting and analyzing data on the extent and causes of shoreline erosion and accretion
- 5) Develop draft geomorphic, environmental, and economic assessment protocols to conduct the National Assessment
- 6) Initiate identification of agency roles and contributions to shoreline management.
- 7) Develop scopes for regional pilot national assessment studies

JUSTIFICATION:

FY 2007 funding would continue work on this study. The Fiscal Year 2007 efforts include:

1. \$50,000 to continue monitoring and reviewing progress in the various Regional Sediment Management Demonstration projects around the nation.
2. \$25,000 to review and modify the geomorphic, environmental, and economic assessment protocols to conduct the National Assessment
3. \$50,000 to continue identification of agency roles and contributions to shoreline management
4. \$50,000 to continue economic research
5. \$50,000 to continue environmental analyses

6. \$150,000 for planning the regional assessment studies.
7. Section 215 of the Water Resources Development Act of 1999 provides the authority for conducting this study. Completion presently scheduled for 30 Sep 2008.

FLOOD AND STORM DAMAGE REDUCTION

REMAINING ITEMS

CONSTRUCTION

APPROPRIATION TITLE: Construction, FY 2007

6. Dam Safety and Seepage/Stability Correction Program

Allocation FY 2006

\$15,000,000

Tentative Allocation FY 2007

\$11,000,000

GENERAL: The Dam Safety and Seepage/Stability Correction Program provides for modification of completed Corps of Engineers dam projects. There are over 700 dam projects under Corps jurisdiction. While no Corps dams are in imminent danger of failure, some may have a higher dam-safety risk than originally anticipated based on new data or the likelihood of extremely large floods and seismic events. 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 increased reservoir levels above the previous pool of record at a project. 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. Dam modification work is proceeding under existing authorities on projects where cost-effective risk reduction measures have been identified and approved.

BUDGET REQUEST: The \$11,000,000 requested for Fiscal Year 2007 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.

FLOOD AND STORM DAMAGE REDUCTION

REMAINING ITEMS

OPERATION AND MAINTENANCE

Earthquake Hazards Reduction Program

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost of Continuing Program	\$270,000
Appropriation for FY 2006	267,000
Allocation Requested for FY 2007	270,000
Increase of FY 2007 from FY 2006	3,000

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 2007: 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. (Note: Significant funds were used to inspect and evaluate drainage pipes through levees. During recent floods seepage along these pipes showed them to be critical weak points in levee protection systems.) 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 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.

National Dam Safety Program – Portfolio Risk Assessment

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost for Continuing Program	\$6,300,000
Appropriation for FY 2006	4,458,000 1/
Allocation Requested for FY 2007	6,300,000
Increase of FY 2007 over FY 2006	1,248,000

1/ Includes \$247,000 appropriated under Remaining Items and \$4,211,000 funded as a centrally funded activity.

AUTHORIZATION: Dam safety legislation PL 92-367 and PL 99-662, and the National Dam Safety Program Act (Section 215 of PL 104-303) and the Dam Safety and Security Act of 2002 (Public Law 107 – 310).

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 portfolio risk analysis program for all 623 of the Corps dams.

(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 ICODS. 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 ICODS participation with various states to improve dam safety in the United States. Through ICODS, the NDSP provides support in development of federal guidelines for dam safety, promotion of public awareness programs, publications, training materials, and workshops. The Act also provides for archival research that is supported by Federal dam owning agencies through ICODS and the National Performance of Dams Program. The Dam Safety and Security Act of 2002 extended the National Dam Safety Program Act appropriation authorization for 5 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. Limited budgets require 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 values of the portfolio risk assessment (PRA) have been demonstrated in two Corps districts as a part of the on-going R&D

efforts. In order to expedite the deployment of Corps-wide portfolio risk assessment and to ensure that the results of the regional and districts portfolio provide a consistent basis for setting national priorities, three USACE PRA cadres have been conducting a screening level PRA during fiscal year 2005. The requested funding is to support the activities to complete the screening level PRA and move forward with an in-depth portfolio analysis of the dams that present the greatest risk.

PROPOSED ACTIVITIES FOR FY 2007:

(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. The NDSP fund special briefings for Congressional interests on the safety of dams and the coordination of safety of dams with other federal agencies.

(2) Three USACE PRA cadres and a national PRA manager will manage the Corps-wide PRA efforts. Each PRA cadre is composed of six Corps members (geotechnical, H&H, structural, mechanical, operations, and economist) who will lead, facilitate, and help train the regional group that is doing the PRA. The members of the cadre will be technical experts within their discipline and will be experienced in dam safety, risk analysis, and the application of probability methods to civil works infrastructure. During FY 2007 the cadres will complete the initial screening level PRA of the Corps dams. The procedures for moving to the next level of analysis will be completed and a detail PRA will be completed on the highest risk dams as previously identified by the screening level PRA's. The results of the screening PRA's will be used in the development of study plans for inclusion in the regular budget cycles and the same results will be used in prioritizing requests for remediation. 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 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.

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 FY05 and FY06. This account also supported the Corps response to the 9-11 events in the safety of dams area. The NDSP program 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 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) While the Portfolio Risk Assessment portion of this account is new this year, initial work has been accomplished during FY05 and FY06 as a centrally funded activity. This work included the selection and training of the PRA cadres and the initial screening of 20 percent of the Corps dams. The results of this work are already being used in prioritizing the remediation of dams.

Reliability Models Program For Major Rehabilitation

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost for Continuing Program	\$650,000
Appropriation for FY 2006	599,000
Allocation Requested for FY 2007	608,000
Increase of FY 2007 from FY 2006	9,000

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 2007: 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 for reliability models for timber piles and crib walls for navigation structures. 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.

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, 18 rehabilitation workshops have been conducted in the last 10 years to provide assistance 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.

Water Operations Technical Support (WOTS)

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost for Continuing Program	\$1,500,000
Allocation for FY 2006	582,000
Allocation Requested for FY 2007	653,000
Increase of FY 2007 from FY 2006	71,000

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 2007: 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, field demonstrations (which are anticipated to expand significantly in FY 2007), information bulletins, technical notes, executive notes, technical reports, miscellaneous papers, instruction manuals, videos, meetings, seminars, briefings, congressional testimony, and the Internet.

ACCOMPLISHMENTS IN FY 2006: Since its inception in FY 1985, WOTS has provided environmental and water quality technological solutions to over 1,450 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 2006, the WOTS program successfully responded to 50 direct technical assistance requests from 26 Corps Districts, conducted 6 training workshops on environmental and water quality management techniques, conducted 2 technology evaluation efforts to verify management strategies and techniques, and prepared 5 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.

HYDROPOWER

Hydropower Table of Contents

Hydropower	
Program Assessment, Corps of Engineers Hydropower	1
Construction	
South Atlantic Division.....	2
John H. Kerr Dam and Reservoir, VA & NC	3
Richard B. Russell Dam and Lake, Georgia and South Carolina	8
Walter F. George Power Plant, Al, GA	14
Operations and Maintenance Summary	19



PROGRAM

[View Similar Programs](#)

RATING

[What This Rating Means](#)

IMPROVEMENT PLAN

[About Improvement Plans](#)

LEARN MORE

PROGRAM ASSESSMENT

Corps of Engineers: Hydropower

This program generates hydropower at 75 existing Federal multi-purpose dams, while meeting other authorized purposes of these dams such as navigation and flood damage reduction. About three percent of the nation's electricity is produced by the Corps, a significant source of power in some regions.

PERFORMING

Adequate

- **The program's performance generally has declined over the past 10 years.** System availability has been declining as much of the infrastructure is approaching the end of its design life.
- **The Corps does not have an overall short-term and long-term asset management strategy.** Each regional office develops its own plan for the maintenance, major rehabilitation, and replacement of its equipment.
- **Performance results reflect high forced outage rates, the lack of a quality, systematic program evaluation and the failure to develop a strategy for undertaking major rehabilitations.**

We are taking the following actions to improve the performance of the program:

- Developing a comprehensive asset management strategy to better account for the inventory, value, condition and reliability of its hydropower assets.
- Developing a program-wide strategy to better plan for the future funding of needed hydropower improvements.
- **Details and Current Status of this program assessment.**
- **How all Federal programs are assessed.**
- **Learn more about Corps of Engineers: Hydropower.**

CONSTRUCTION

HYDROPOWER
CONSTRUCTION
SOUTH ATLANTIC DIVISION

APPROPRIATION TITLE: Construction, General - Multiple Purpose Power (Major Rehabilitation).

PROJECT: John H. Kerr Dam and Reservoir, VA & NC (Continuing).

LOCATION: The Kerr Powerhouse is located on the Roanoke River in Mecklenburg County, Virginia, 7 miles east of Boydton, Virginia, 80 air miles southwest of Richmond, Virginia, and 60 air miles north of Raleigh, North Carolina.

DESCRIPTION: The recommended plan involves the rewinding of seven generator units to maximum capacity, replacement of the turbines and main power transformers, and the replacement or refurbishment of key electrical and mechanical peripheral equipment in order to improve the overall reliability of the project, reduce operation and maintenance costs, reduce unscheduled repair costs, and provide additional hydropower capacity and power revenues.

AUTHORIZATION: Flood Control Act of 1944.

REMAINING BENEFIT-REMAINING COST RATIO: 5.2 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 3.6 to 1 at 7 percent.

BASIS OF BENEFIT-COST RATIO: Benefits are from the latest available evaluations contained in the Major Rehabilitation Evaluation Report addendum and transmittal memorandum dated June 1997, at October 1996 price levels. Benefits were brought to current conditions of the power generation facilities and expected alternative costs in January 2005 using information from the Hydropower Design Center.

INITIAL BENEFIT-COST RATIO: 1.4 to 1 at 7 1/8 percent. Initial construction funds appropriated in FY 1998.

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST	STATUS (1 Jan 2006)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Total Appropriation Requirement	\$80,400,000		Entire Project	27	TBD
Future Non-Federal Reimbursement	\$80,400,000				
Estimated Non-Federal Cost (Ultimate)	\$ 0				
Cash Contributions	0				
Other Costs	0				
Reimbursements	\$ 80,400,000				
Power	\$80,400,000				
Total Estimated Project Cost	\$80,400,000				
Allocations to 30 September 2003	\$ 12,411,000				
Allocation for FY 2004	4,739,000				
Allocation for FY 2005	4,685,000				
Conference Allowance for FY 2006	14,000,000				
Allocation for FY 2006	13,860,000	1/			
Allocations through FY 2006	35,695,000		45		
Allocation Requested for 2007	\$ 11,000,000		58		
Programmed Balance to Complete after FY 2007	33,705,000				
Unprogrammed Balance to Complete after FY 2007	0				

1/ Reflects \$ 140,000 reduction assigned as rescission.

PHYSICAL DATA

Rewind Generator	7
Replace Turbines	6
Refurbish Turbines	1
Replace Transformers	All

Division: South Atlantic

District: Wilmington

John H. Kerr Dam and Reservoir, NC & VA

6 February 2006

JUSTIFICATION: The John H. Kerr Powerplant, which was initially placed into operation in 1953, is showing signs of excessive wear of the generators, the peripheral equipment and the turbines. This has resulted in a loss of efficiency, reduced reliability of the units and lost power output for the units. The recommended plan of improvement calls for rewinding the generators to maximum capacity, replacement of the turbines and main power transformers, and replacement or refurbishment of key electrical/mechanical peripheral equipment. The recommended plan will improve the powerplant's overall reliability, reduce further degradation of the hydroelectric units, decrease operation and maintenance costs, and increase the power generation capability. There is growing concern with project reliability due to recent malfunctions of oil circuit breakers in the switchyard, for which repair parts are no longer available and must be custom fabricated; frequent leaks in the raw water piping system, which is in extremely poor condition throughout; and the extremely heavy cavitation observed in the runner, stay ring and discharge ring of unit #5. Average annual benefits for hydroelectric power are \$17,485,000.

FISCAL YEAR 2006: The allocated amount of \$13,860,000 will be used for power plant rehabilitation, planning, engineering and design and construction management.

FISCAL YEAR 2007: The requested amount of \$11,000,000 will be applied as follows:

Rehabilitation of powerplant	\$9,780,000
Planning, Engineering and Design	490,000
Construction Management	730,000
Total	\$11,000,000

NON-FEDERAL COST: 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
Pay all costs allocated to hydropower and bear all costs of operation, maintenance, repair, rehabilitation and replacement of hydropower facilities	\$80,400,000	\$6,043,000

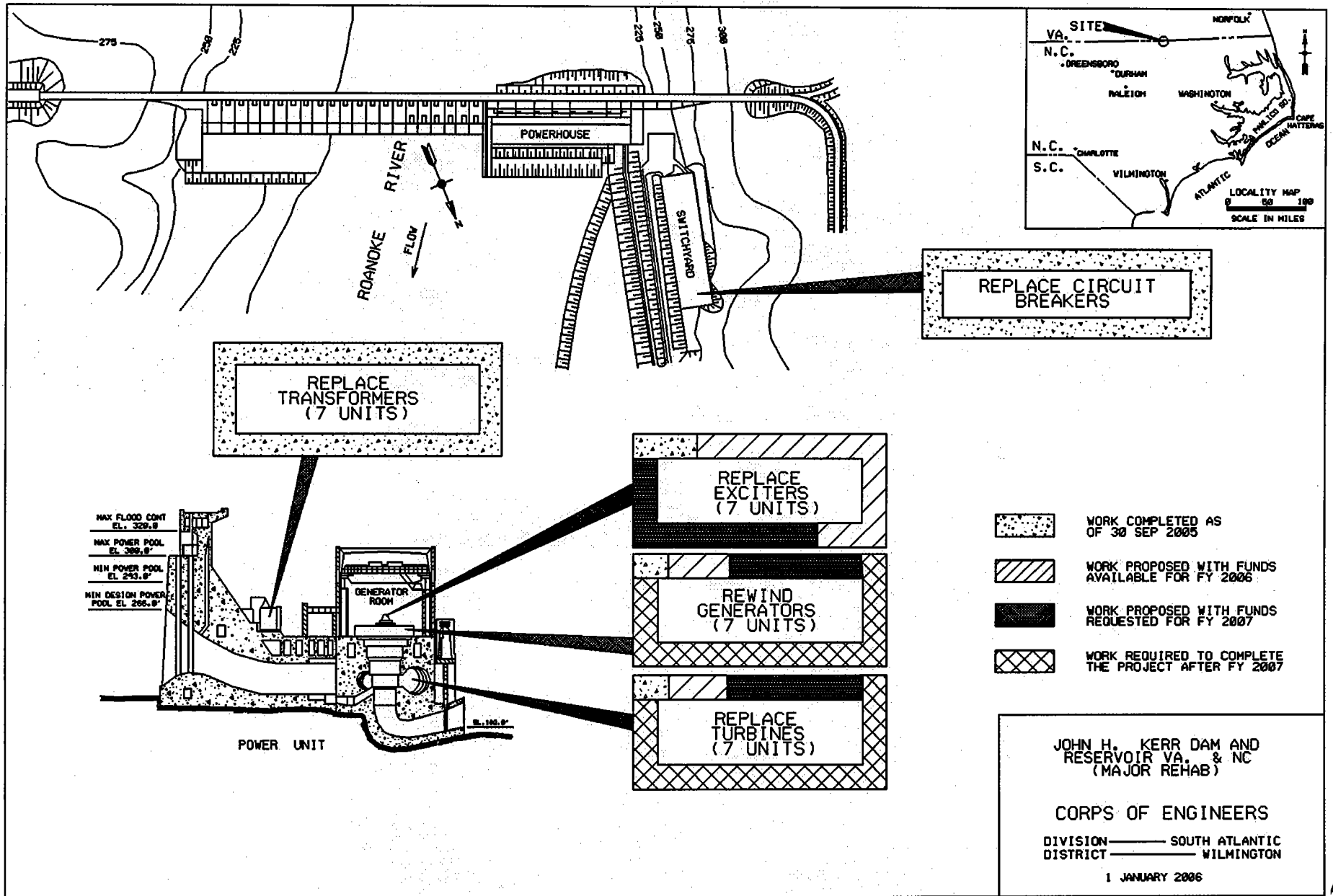
STATUS OF LOCAL COOPERATION: Pursuant to Federal Laws responsibility for repayment of hydropower costs rests with the power-marketing agency, the Southeast Power Administration.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal (Corps) cost estimate of \$80,400,000 is an increase of \$3,600,000 over the latest estimate (\$76,800,000) presented to Congress (FY 2006). This change includes the following items.

Item	Amount
Price Escalation on Construction Features	\$2,042,000
Authorized Modifications	1,558,000
Post Contract Award and Other Estimating Adjustments	0
Total	\$3,600,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An Environmental Assessment and Finding of No Significant Impact was prepared and distributed in December 1996 for public comment. The Finding of No Significant Impact was signed by the District Engineer on 7 February 1997.

OTHER INFORMATION: None.



Div

6 February 2006

A

APPROPRIATION TITLE: Construction, General - Multiple Purpose Power

PROJECT: Richard B. Russell Dam and Lake, Georgia and South Carolina (Continuing)

LOCATION: The project is located on the Savannah River about 275 miles above the mouth, 16 miles southeast of Elberton, Georgia and 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 5,616 feet consists of a 1,884-foot concrete section and embankments of 3,732 feet. The gate-controlled spillway has a design capacity of 800,000 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.

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: 1.74 to 1 at 7%

TOTAL BENEFIT - COST RATIO: 1.9 to 1 at 3 1/4 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.

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST	STATUS (1 Jan 2006)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Total Appropriation Requirement	\$624,100,000		Entire Project	99	TBD
Future Non-Federal Reimbursement	590,583,000				
Estimated Federal Cost (Ultimate)	33,517,000				
Estimated Non-Federal Cost	592,483,000				
Cash Contributions	1,900,000				
Reimbursements	590,583,000				
Power	590,583,000				
Total Estimated Project Cost	626,000,000				
Allocations to 30 September 2003	609,991,000				
Allocations for FY 2004	1,640,000				
Allocation for FY 2005	972,000				
Conference Allowance for FY 2006	1,300,000				
Allocations for FY 2006	1,287,000	<u>1/</u>			
Allocations thru FY 2006	613,890,000	98%			
Allocation Requested for FY 2007	4,600,000	99%			
Programmed Balance to Complete after FY 2007	5,610,000				
Unprogrammed Balance to Complete after FY 2007	0				

1/ Reflects a reduction of \$13,000 for rescission

Division: South Atlantic

District: Savannah

Richard B. Russell Dam and Lake, GA & SC

Feb 2006

135

9

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		Flood Control	140,000
Design Capacity (c.f.s)	800,00	Power	126,800
Lands and Damages (Acres)	0	Dead Storage	899,400
Type: Predominantly timber and Agricultural	53,112		
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. The estimated initial visitation at the project was 1,000,000 and should exceed 4,600,000 in the early 2000's. 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 2006: Continue environmental monitoring at a reduced scope and initiate installation of main circuit breakers and static start.

FISCAL YEAR 2007: The requested amount will be applied as follows:

Continue environmental monitoring of pumped storage operation	\$ 722,000
Continue Installation of Static Start and Main Circuit Breakers	1,459,000
Initiate contracts on JST O2 System for RBR Pumped Storage	1,582,000
Planning, Engineering and Design	575,000
Construction Management	262,000
Total	\$4,600,000

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 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.

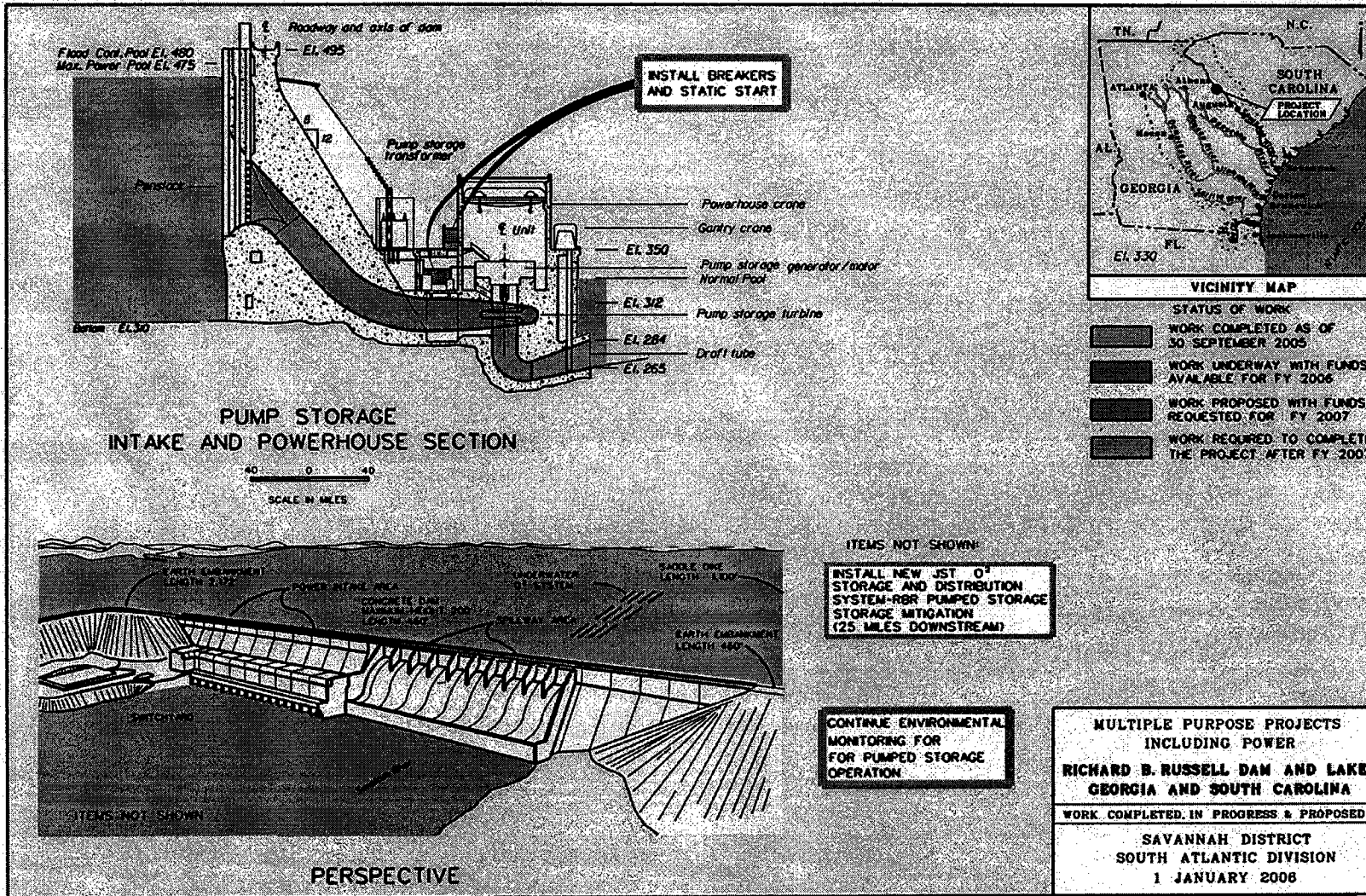
COMPARISON OF FEDERAL COST ESTIMATES: The current Federal (Corps) costs estimate of \$624,100,000 is the same as the latest estimate presented to Congress (FY2006).

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 a O₂ system to increase 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.

In accordance with the NEPA Decision previously signed in August 1999, the District agreed to construct an oxygenation system in JST Lake to mitigate potential summer time temperature impact to the striped bass habitat in the tailwater regime below RBR Dam. The O₂ system is designed to enhance fish habitat and it is located near Madoc about 5 miles above JST Dam. Also, in accordance with the NEPA document, the Corps is required to continue environmental monitoring for seven years, five of which must cover the plan 5 year round capability using 4 pump units. The District has agreed to limit pumping to two units from June to September to facilitate construction of the O₂ system prior to using 4 pump units in the summer months.

Pumped Storage was declared commercially available on 1 September 2002 with a favorable decision from U.S. District Court granted 03 May 2002. That hearing on the Corps' request for summary judgment to dismiss the injunction was conducted on 17 October 2000 in the Charleston, SC U.S. District Court.



APPROPRIATION: Construction, General - Multiple Purpose Power (Major Rehabilitation)

PROJECT: Walter F. George Power Plant, AL, GA (Continuing)

LOCATION: Walter F. George Lock and Dam is located at mile 181.5 on the Chattahoochee River, 50 miles south of Columbus, Georgia, and about 84 miles southeast of Montgomery, AL. The navigation lock and gated spillway are located on the right bank of the river. The powerhouse is on the left bank, across the river from the lock, adjacent to the gated spillway.

DESCRIPTION: The plan of improvement is to refurbish the four turbines, replace exciters with solid state (static) exciters and rewind the four generators.

AUTHORIZATION: Section 2 of the River and Harbor Act of 1945, further modified by the River and Harbor Act of 1946.

REMAINING BENEFIT - REMAINING COST RATIO: 11.8 to 1 at 7 percent.

TOTAL BENEFIT - COST RATIO: 0.90 to 1 at 7 percent.

INITIAL BENEFIT - COST RATIO: 1.3 to 1 at 7-3/4 percent (FY 1997).

BASIS OF BENEFIT - COST RATIO: Benefits are from the Major Rehabilitation Evaluation Report approved in August 1995 at October 1994 price levels.

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST	STATUS (1 Jan 2006)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Total Appropriation Requirement		\$40,200,000	Entire Project	75	TBD
Future Non-Federal Reimbursement		40,200,000			
Estimated Federal Cost (Ultimate)		0			
Estimated Non-Federal Cost		40,200,000			
Cash Contributions	\$ 0				
Other Costs	0				
Reimbursements	40,200,000				
Power	\$40,200,000				
Total Estimated Project Cost		40,200,000			
Allocation thru 30 September 2003		20,360,650			
Allocation for FY 2004		3,575,000			
Allocation for FY 2005		4,819,670			
Conference Allowance for FY 2006		4,121,000			
Allocation for FY 2006		4,080,000	1/		
Allocation thru FY 2006		32,835,320		82%	
Allocation Requested for FY 2007		5,000,000		94%	
Programmed Balance to Complete After FY 2007		2,364,680			
Unprogrammed Balance to Complete after FY 2007		0			

1/ Reflects rescission of \$41,000

PHYSICAL DATA

Rewind 4 generators
 Replace exciters for 4 generators
 Replace 4 turbines
 Install SCADA system

Division: South Atlantic

District: Mobile

Walter F. George Power Plant, AL & GA

6 February 2006

JUSTIFICATION: The Walter F. George Powerhouse has experienced notable wear and deterioration levels since the early 1970's. The reliability has degraded faster than expected because of increased recurring cavitation problems as well as partial failure of generator coils as they approach 40 years of their 35-year life expectancy. Engineering analysis shows that these problems along with increasing generating outages can be expected to continue into the future. The result of these increased outages, as well as the reduced plant efficiencies, will be increased operation and maintenance costs, increased production costs and loss of generating revenues to the treasury. Average annual benefits for the major rehabilitation project are \$5,093,300.

FISCAL YEAR 2006: Funds will be used for rehabilitation of Units 1, 2 and 3 with associated engineering and design and supervision and administration.

FISCAL YEAR 2007: The requested amount will be applied as follows:

Continue Construction	\$ 4,450,000
Planning, Engineering, & Design	160,000
Construction Management	390,000
TOTAL	\$ 5,000,000

NON-FEDERAL COST: The costs allocable to power are reimbursable, and will be reviewed and adjusted based on construction costs when the project becomes operational.

	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Requirements of local Cooperation		
Capital Cost allocated to power	\$40,200,000	0
Total Non-Federal Costs	\$40,200,000	0

STATUS OF LOCAL COOPERATION: Responsibility for repayment of hydropower costs rests with the Southeastern Power Administration pursuant to Federal law.

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal (Corps) cost estimate of \$40,200,000 is an increase of \$8,400,000 from the latest estimate (\$31,800,000) presented to Congress (FY 2006).

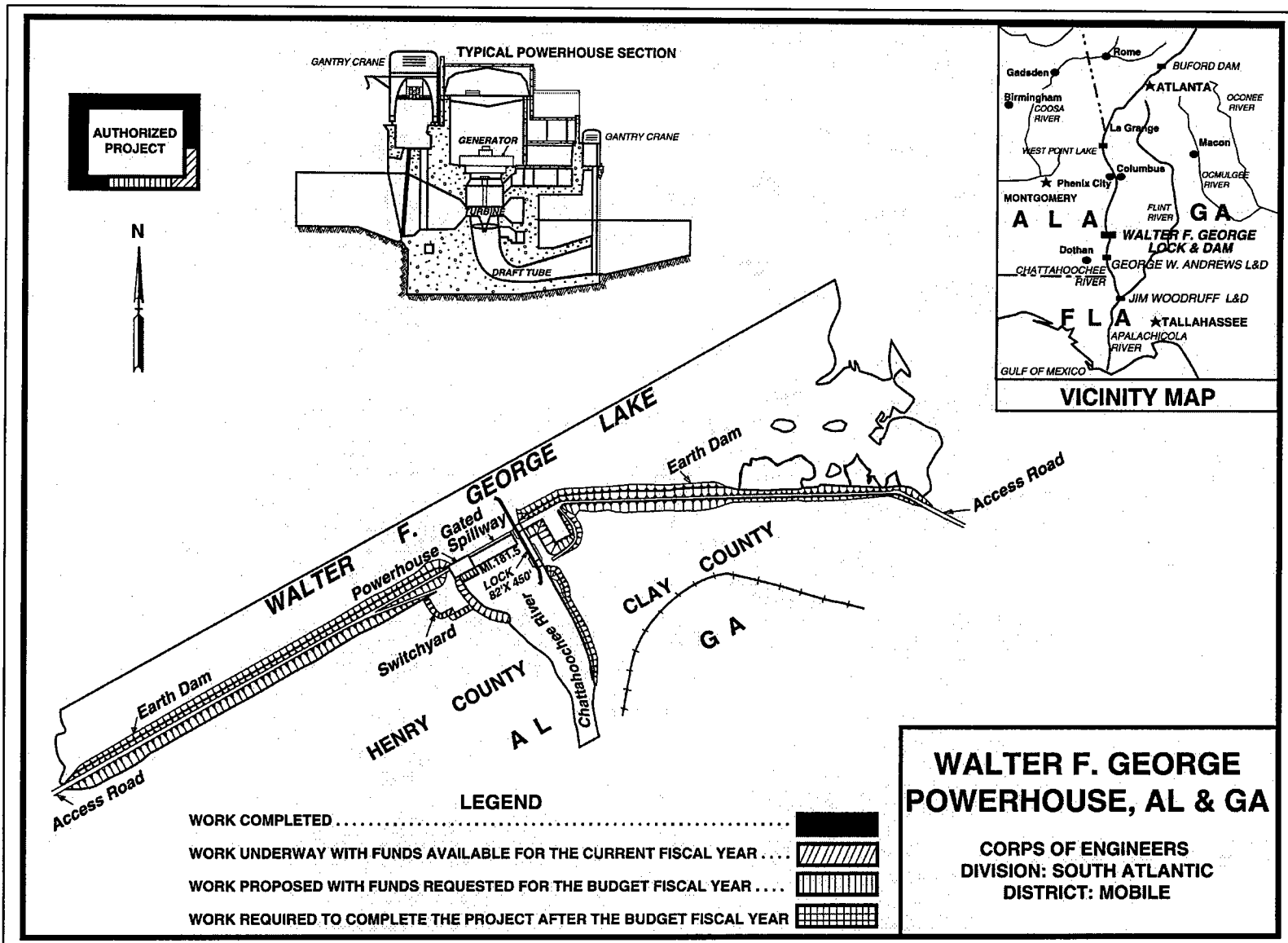
Item	Amount
Division: South Atlantic	District: Mobile
	Walter F. George Power Plant, AL & GA

6 February 2006

Price Escalation on Construction Features	\$ 135,000
Post Contract Award and Other Estimating Adjustments	8,265,000
Total	\$8,400,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An Environmental Assessment (EA) was prepared which addressed the expected impacts of the recommended alternative as well as other potential alternatives under consideration. The EA concluded with a Finding of No Significant Impact (FONSI). The EA and FONSI were fully coordinated with the public and State and Federal agencies. The commenting agencies concurred with the FONSI for the recommended alternative discussed in the environmental documentation. Agency comments were then incorporated into the final EA and FONSI, which were signed on 1 March 1997.

OTHER INFORMATION: Funds to initiate construction were appropriated in Fiscal Year 1997.



OPERATION AND MAINTENANCE

FY 2007 OPERATION AND MAINTENANCE

	Hydropower		
Region 03 South Atlantic-Gulf	19,876,000	32,395,000	52,271,000
Region 04 Great Lakes	432,000	592,000	1,024,000
Region 05 Ohio	9,663,000	11,542,000	21,205,000
Region 07 Upper Mississippi	1,003,000	484,000	1,487,000
Region 08 Lower Mississippi	3,643,000	7,789,000	11,432,000
Region 10 Missouri	15,736,000	16,655,000	32,391,000
Region 11 Arkansas-White-Red	18,398,000	6,641,000	25,039,000
Region 12 Texas-Gulf	1,745,000	1,165,000	2,910,000
Region 17 Pacific Northwest	0	87,473,000	87,473,000
Total Hydropower	70,496,000	164,736,000	235,232,000

COMMERCIAL NAVIGATION

Commercial Navigation Table of Contents

Commercial Navigation	
Program Assessment: Coastal Ports and Harbors	1
Program Assessment: Inland Waterways Navigation	3
Investigations	
Great Lakes and Ohio River Division	5
Great Lakes Navigational System	6
Indiana Harbor, IN	8
Mississippi Valley Division	9
Bayou Sorrel Lock, LA	10
North Atlantic Division	11
Boston Harbor, MA	12
Southwestern Division	14
Brazos Island Harbor, Brownsville Channel, Texas	15
Freeport Harbor, Texas	17
Sabine Neches Waterway, Texas	18
Texas City Channel, Texas	19
Construction	
Great Lakes and Ohio River Division	20
Chickamauga Lock and Dam, Tennessee River, Tennessee	21
Locks and Dams 2, 3, and 4, Monongahela River, Pennsylvania	25
McAlpine Locks and Dam, Kentucky and Indiana	30
Marmet Locks and Dam, West Virginia	35
Ohio River, Emsworth Locks and Dams Project, Pennsylvania	40
Olmstead Locks and Damns	44
Robert C. Bryd Locks and Dam West Virginia and Ohio	48
Winfield Locks and Dam, West Virginia	54
Mississippi River Division	59
J. Bennett Johnston Waterway - Mississippi River to Shreveport, Louisiana	60
Mississippi River Between the Ohio & Missouri Rivers Missouri & Illinois	72
North Atlantic Division	80
New York & New Jersey Harbor, NY and NJ	81

Commercial Navigation Table of Contents (Continued)

Northwestern Division.....	89
Columbia River Channel Improvement, OR & WA.....	90
Pacific Ocean Division	95
Chignik Harbor, Alaska	96
Sand Point Harbor, Alaska.....	101
South Atlantic Division.....	106
Mobile Harbor, Al.....	107
Tampa Harbor, Big Bend, FL	119
South Pacific Division	124
Oakland Harbor, California (50-ft).....	125
Port of Long Beach (Deepening), CA.....	131
Southwestern Division.....	136
Houston-Galveston Navigation Channel, Texas.....	137
Montgomery Point Lock and Dam, Arkansas.....	145
Operations and Maintenance Summary	150
Remaining Items	152
Continuing Authorities Program.....	153
Section 107.....	154
Operations and Maintenance.....	155
Aquatic Nuisance Control Research	156
Asset Management and Facilities Equipment Maintenance	158
Beneficial Uses of Dredged Material (Section 203/207/933).....	159
Coastal Inlet Research Program	160
Dredge Wheeler Ready Reserve	164
Dredged Material Disposal Facilities Program.....	165
Dredging Data and Lock Performance Monitoring System	166
Dredging Operations and Environment Research (DOER) Program	168
Dredging Operations Technical Support (DOTS) Program.....	171
Great Lakes Tributary Model.....	174
Inland Waterway Navigation Charts.....	175

**Commercial Navigation
Table of Contents (Continued)**

Monitoring of Completed Navigation Projects.....176
National Coastal Mapping Program.....179
Navigation Mitigation Projects (Section 111, PL90-483, as amended)181
Performance Based Budgeting Support Program182
Protection of Navigation (Four Items).....184
Regional Sediment Management Program (RSM)187



PROGRAM

[View Similar Programs](#)

RATING

[What This Rating Means](#)

IMPROVEMENT PLAN

[About Improvement Plans](#)

PROGRAM ASSESSMENT

Corps of Engineers: Coastal Ports and Harbors

This program helps design, build, operate and maintain the nation's coastal maritime infrastructure -- ports, harbors, and navigation channels. More than 1.3 billion tons of cargo worth more than \$900 billion moves through these facilities annually.

PERFORMING

Moderately Effective

- **The Corps coastal navigation program plays an important role in constructing, operating and maintaining coastal maritime infrastructure essential for meeting international commercial and military needs.**
- **Corps investment decisions to construct new coastal maritime infrastructure facilities under this program have not always been based on sound economic considerations.** That somewhat undisciplined approach tends to waste valuable resources and reduce the program's effectiveness.
- **Corps decisions on how to spend its operation and maintenance budget need improvement.** The Corps needs to develop and apply better management techniques to budget O&M expenditures, including facility condition indices which assess the need for O&M spending in an orderly and methodical way.

We are taking the following actions to improve the performance of the program:

- Selecting Corps coastal navigation construction projects using objective, business-like, economic criteria to achieve the maximum benefits possible and to eliminate waste and inefficiency.
- Developing and implementing improved techniques for managing O&M expenditures, including facility condition indices, standardizing decision-

making across Corps divisions and districts.

LEARN MORE

- **Details and Current Status of this program assessment.**
- How all Federal programs are assessed.
- Learn more about Corps of Engineers: Coastal Ports and Harbors.

COMMERCIAL NAVIGATION



PROGRAM

[View Similar Programs](#)

RATING

[What This Rating Means](#)

IMPROVEMENT PLAN

[About Improvement Plans](#)

PROGRAM ASSESSMENT

Inland Waterways Navigation

The goal of the program is to facilitate substantial movements of waterborne commerce on the inland waterways where highly cost-effective. The Corps uses locks and dams, navigation channels, and other measures to support safe, reliable, and environmentally sustainable transportation on these waterways.

NOT PERFORMING

Results Not Demonstrated

- **The rehabilitation of existing infrastructure is funded from a different appropriation than routine maintenance, and responsibility for these interrelated investments is fragmented.** The current approach diffuses accountability and oversight, does not reflect the full cost of operating and maintaining existing projects, and impedes development of an integrated investment strategy.
- **The Corps proposed new navigation locks on the Upper Mississippi River and Illinois Waterway based on an outdated economic model that overstates benefits and a second economic model that reflects flawed, hypothetical data and assumptions.** The National Academy recommended developing a new model based on real willingness-to-pay data to form the foundation for estimating the benefits.
- **The Corps needs to develop standard risk and reliability criteria to measure the condition of its inland waterways projects nationwide and use in establishing priorities for maintenance funding.**

We are taking the following actions to improve the performance of the program:

- Proposing to transfer the rehabilitation of inland waterways projects, where

the extent of the work is not large enough to be considered a replacement, from construction to the maintenance program.

- Developing a new economic model to estimate properly the economic benefits of a range of possible improvements on the Upper Mississippi River and Illinois Waterway.
- Improving how the program measures risk and reliability. The Corps has held five workshops with waterways users to discuss the factors relevant to the allocation of maintenance funding.

LEARN MORE

- **Details and Current Status of this program assessment.**
- How all Federal programs are assessed.
- Learn more about Inland Waterways Navigation.

COMMERCIAL NAVIGATION
INVESTIGATIONS
GREAT LAKES AND OHIO RIVER DIVISION

APPROPRIATION TITLE: General Investigations, Fiscal Year 2007
 Division: Great Lakes and Ohio River Division

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2004 \$	Allocation FY 2004 \$	Allocation FY 2005 \$	Allocation FY 2006 \$	Tentative Allocation FY 2007 \$	Additional to Complete After FY 2007 \$
Great Lakes Navigational System, MI, IL, IN, MN, NY, OH, PA and WI Detroit District	7,995,700	1,801,000	1,413,700	1,509,000	1,272,000	300,000	1,700,000

The Great Lakes/St. Lawrence Seaway navigation system is an international waterway that provides a minimum 25.5' safe draft for nearly 2,300 miles. The system extends from the Atlantic Ocean throughout the Great Lakes to Duluth, MN. The navigation system is operated and maintained by both the United States and Canadian Governments through the St. Lawrence Seaway Development Corporation (USDOT), the St. Lawrence Seaway Management Corporation (Transport Canada), and the U.S. Army Corps of Engineers. The system contributes significantly to the North American economy in both the United States and Canada. Section 456 of the Water Resources Development Act of 1999 directed the Corps to review the feasibility of improving commercial navigation on the Great Lakes navigation system, including locks, dams, harbors, ports, channels, and other related features, in consultation with the St. Lawrence Seaway Development Corporation (SLSDC). A Reconnaissance Report, in response to the 1999 WRDA study authorization, was approved in February 2003. Prior to initiation of any feasibility studies, additional information is needed, as a supplement to the reconnaissance report, for determination of the Federal interest. This effort will also include an assessment of baseline without-project conditions for the environment, engineering features and economic conditions, and examine concerns that have been raised as a result of public involvement and coordination. Should the recommendation be to proceed with further studies, this phase must also determine the scope of additional studies, including cost and duration, and develop a Project Management Plan. Since the system is a bi-national waterway, coordination with Canada occurred during the development of the Reconnaissance Report, and in May 2003, Transport Canada Minister Collenette and Department of Transportation Secretary Mineta signed a Memorandum of Cooperation which underscores both countries intent to cooperate and collaborate to ensure the viability of the Great Lakes St. Lawrence Seaway System. Further coordination between the Canadian and U.S. Governments has resulted in a draft Memorandum of Understanding between the USDOD, SLSDC and Transport Canada (TC) which will be negotiated. Canadian funding for their involvement in the study has been proceeding at a level commensurate with that of the USACE. Through FY05, Canadian funding for the supplemental study efforts has totaled approximately \$3.5M, and Canada has funding committed (approximately \$1.5M) to continue their efforts in FY06. Through FY05, USACE funding for the supplemental study efforts totaled approximately \$3.6M.

Bi-national Steering Committee/working groups have been established for the supplemental study efforts, including representatives from TC, USDOT, USACE, USFWS, Environment Canada, and both U.S. and Canadian Seaway Authorities. A series of regional public meetings were held to solicit input on the study from interested stakeholders of the waterway. Engineering analyses of the system have been completed, including infrastructure inspections, and reliability modeling initiated. FY06 funding will be used to complete engineering/economic models and traffic forecasts, with both TC and the U.S. Maritime Administration (MARAD) funding key components, and the results integrated between these models. U.S. and Canadian environmental resources are being integrated leading to a regional assessment of key resources and navigation related impacts. A draft report will be generated summarizing the preliminary results. The FY06 Conference Report also included language indicating an expectation of the part of the conferees that USACE will move forward with the study as expeditiously as possible without

6 February 2006

compromising scope or quality. FY07 funds will be used to continue efforts related to finalization of the bi-national report and formalization of the scope and cost sharing requirements of any follow-on study efforts as part of continued development of the USACE supplemental reconnaissance study.

6 February 2006

APPROPRIATION TITLE: General Investigations, Fiscal Year 2007

Great Lakes and Ohio River Division

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2004 \$	Allocation FY 2004 \$	Allocation FY 2005 \$	Allocation FY 2006 \$	Tentative Allocation FY 2007 \$	Additional to Complete After FY 2007 \$
Indiana Harbor, IN	3,400,000	981,600	125,000	533,000	297,000	300,000	1,163,400

Chicago District

The study area is located in northwest Indiana in the communities of Gary, East Chicago, and Hammond, Indiana. The study area covers 15.4 river miles, including the Indiana portion of the Grand Calumet River (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 area contains approximately two million cubic yards of bottom sediments that are highly contaminated with polynuclear aromatic hydrocarbons, metals (including lead and chromium), 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. AOCs are identified as areas with one or more impairments of fourteen beneficial uses. This area fails all fourteen beneficial uses. The Grand Calumet River/Indiana Harbor is a high priority clean-up area for the Indiana Department of Environment Management (IDEM), the non-Federal sponsor. The purpose of this study is to investigate and recommend alternatives for management of the contaminated sediment and identify areas for habitat restoration and other authorities under which restoration can be accomplished. Sediment is the source of contamination and environmental restoration cannot occur without removal or management of the contaminated sediment. The Feasibility Cost Sharing Agreement was executed on 24 May 2004.

FY 2006 funds are being used to continue the feasibility phase of the study. FY 2007 funds will be used to continue the feasibility phase of the study. The estimated cost of the feasibility phase is \$6,200,000, which is to be shared on a 50/50 percent basis by Federal and non-Federal interests. The non-Federal sponsor will provide their share as work-in-kind. A summary of the study cost sharing is as follows:

Total Estimated Study Cost	\$6,500,000
Reconnaissance Phase (Federal)	300,000
Feasibility Phase (Federal)	3,100,000
Feasibility Phase (Non-Federal)	3,100,000

Completion of the feasibility phase is scheduled for September 2008.

COMMERCIAL NAVIGATION
INVESTIGATIONS
MISSISSIPPI VALLEY DIVISION

APPROPRIATION TITLE: General Investigations, Fiscal Year 2007

Mississippi Valley Division

Project	Total Estimated Federal Cost \$	Allocation To FY 2003 \$	Allocation for FY 2004 \$	Allocation for FY 2005 \$	Allocation for FY 2006 \$	Allocation Requested for FY 2007 \$	Additional to Complete After FY 2007 \$
LOUISIANA							
Bayou Sorrel Lock, LA New Orleans District	5,100,000	0	354,000	637,000	1,238,000	1,500,000	1,371,000

Bayou Sorrel Lock is a feature of the Atchafalaya Basin project, which is a feature of the Flood Control, Mississippi River and Tributaries project. The project flood flow line for the Atchafalaya Basin was modified in 1986 to the current elevation of 28.7. In order to maintain the level of flood protection provided by the Atchafalaya Basin 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. A 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 at an estimated cost of \$97,500,000. The benefit-cost ratio is 14 to 1 based on the latest economic analysis dated September 2002. Preconstruction engineering and design cost would be all Federal.

Total Estimated Preconstruction Engineering and Design Costs	\$5,100,000	Total Estimated Preconstruction Engineering and Design Costs	\$5,100,000
Initial Federal Share	5,100,000	Ultimate Federal Share	5,100,000
Initial Non-Federal Share	0	Ultimate Non-Federal Share	0

Development of the Detailed Design Report (DDR) is being performed by a "Regional Team" composed of individuals from the Vicksburg, St Louis, St Paul, Rock Island, and New Orleans Districts.

Fiscal Year 2006 funds are being used to prepare the Detailed Design Report. Topographic and geotechnical data collection will be completed. Barge Simulation Model will be completed by Engineering Research and Design Center and simulations will be performed by barge captains. A cultural resources documentation of the lock will be prepared. The 65 percent design will be completed by the Regional Team in FY 2006 and reviewed by the New Orleans District. Work on the 100 percent DDR design will be initiated.

Funds requested for Fiscal Year 2007 will be used by the Regional Team to prepare a 95 percent design for the DDR. After a review by the New Orleans District, the DDR will be prepared and subjected to an Independent Technical Review. Work on plans and specifications for the initial construction contract will be initiated.

The project is not authorized for construction. The PED completion date is being determined.

COMMERCIAL NAVIGATION
INVESTIGATIONS
NORTH ATLANTIC DIVISION

APPROPRIATION TITLE: Investigations, Fiscal Year 2007

North Atlantic Division

Study	Total Estimated Federal Cost \$	Allocation Thru FY 2003 \$	Allocation FY 2004 \$	Allocation FY 2005 \$	Allocation FY 2006 \$	Tentative Allocation FY 2007 \$	Additional to Complete After FY 2007 \$
MASSACHUSETTS							
Boston Harbor, MA New England District	2,524,000	758,000	353,000	516,000	297,000	300,000	300,000

Boston Harbor is located along the eastern shoreline of Massachusetts and is New England's largest port serving as the principal distribution point for the commerce of Massachusetts, New Hampshire and Vermont. In 2003, waterborne commerce totaled 24.8 million tons, of which approximately 53 percent were liquid petroleum products. The inner harbor is comprised of the Main Ship, Reserved, Chelsea River and Mystic River Channels. The Massachusetts Port Authority (Massport) has been upgrading facilities and deepened berths to 45 feet at Conley Terminal, which is located along the southerly side of the Reserved Channel. In addition, Massport has plans to expand Conley Terminal onto the adjacent Coastal Oil Terminal property and to develop a bulk cargo terminal at nearby Massport Marine Terminal, increasing the number of berths that would benefit from deeper channels. The Port of Boston Competitiveness Task Force Report, dated December 1998, concluded that the channels accessing Conley Terminal must be dredged to at least 45 feet for New England companies to remain competitive by receiving containerized cargo by direct ocean going service. Ships drawing 45-foot drafts now make 3 calls a week to Boston Harbor. Navigation improvements to deepen portions of Boston Harbor to at least 45 feet would increase the efficiency of harbor operations and reduce tidal delays for larger vessels. The reconnaissance report, certified in August 2001, recommended studies to deepen the Main Ship, Reserved, and Entrance Channels to 45 feet. A feasibility cost-sharing agreement (FCSA) was executed with Massport on 27 June 2002. Massport has requested an amendment to the FCSA to investigate deepening the Chelsea River Channel to 40 feet.

Fiscal Year 2005 funds were used to continue the feasibility phase; including initial ship simulation studies, channel design efforts, and environmental resource surveys.

Fiscal Year 2006 funds are being used to continue the feasibility phase. Study efforts include economic evaluation of bulk cargo benefits, initial preparation of the Supplemental Environmental Impact Statement (SEIS), geotechnical analysis of bulkheads and completion of ship simulation studies.

Funds requested for Fiscal Year 2007 will be used to continue the feasibility phase, including preparation of a draft feasibility report and release of the draft SEIS in April 2007 for review and comment.

The estimated cost of the feasibility phase is \$4,880,000, 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:

APPROPRIATION TITLE: Investigations, Fiscal Year 2007

North Atlantic Division

Study	Total Estimated Federal Cost \$	Allocation Thru FY 2003 \$	Allocation FY 2004 \$	Allocation FY 2005 \$	Allocation FY 2006 \$	Tentative Allocation FY 2007 \$	Additional to Complete After FY 2007 \$
Boston Harbor, MA New England District							
				\$4,964,000			
				84,000			
				2,440,000			
				2,440,000			

The reconnaissance phase was completed in June 2002. The feasibility study completion date is being determined.

INVESTIGATIONS

COMMERCIAL NAVIGATION
INVESTIGATIONS
SOUTHWESTERN DIVISION

ILLUSTRATION A-2.2
COST-SHARED FEASIBILITY STUDY

APPROPRIATION TITLE: General Investigations, Fiscal Year 2007

Southwestern Division

Study	Total Estimated Federal Cost \$	Allocation Thru FY 2003 \$	Allocation FY 2004 \$	Allocation FY 2005 \$	Allocation FY 2006 \$	Tentative Allocation FY 2007 \$	Additional to Complete After FY 2007 \$
Brazos Island Harbor, Brownsville Channel, Texas Galveston District	3,266,000	9,000	91,000	25,000	767,000	500,000	1,874,000

The Port of Brownsville is located on the south Texas coast near the US-Mexican border. The study area encompasses the entire Brazos Island Harbor and surrounding region. The entrance channel is located offshore of Cameron County, Texas, in the Gulf of Mexico and ends at the Port of Brownsville Main Harbor in the City of Brownsville. The existing channel is 42-foot deep (plus 2-foot over-depth) by 300-foot wide entrance channel for a distance of 2.5 miles converging to a natural water depth of 44-feet in the Gulf of Mexico; a 42-foot deep by 250-foot wide by 14.8 miles long channel within the inland segment of the waterway; a 42-foot deep by widths varying from 325 to 400 feet at the turning basin for a length of 5,200 feet; and the final segment of the Brownsville Turning Basin at a depth of 36 feet and a width of 1,200 feet. The most recent deepening was authorized by the Water Resources Development Act of 1986. Project construction was completed in 1996. The proposed study will address the feasibility of deepening the entrance and jetty channel (2 miles) to 55 feet, deepen the lower 9 miles of main channel to -55 feet and deepen the upper 7 miles of main channel and turning basin to -45 feet. Brownsville is primarily a bulk commodity port covering both liquid and dry cargo handling. It is an important in-transit port for trade to and from Mexico. In 2002, Brownsville was the nation's second largest in-transit harbor by volume. Total tonnage on the Brazos Island Harbor increased from 1,829,000 tons in 1992 to 4,741,000 tons in 2002; a difference of 2,912,000 tons. In addition to traditional vessel traffic, there is a need for increased channel dimensions in order to serve offshore rigs presently operating in the U.S. Gulf Coast. The operational draft of the newer rigs ranges from 45 to 63 feet. The project will contribute to the restoration of over 6500 acres of tidal marsh habitats, as well as brush habitat with the Bahia Grande in collaboration with federal and state agencies. This entire marsh was destroyed by the mid-20th Century due to loss of tidal connection by surrounding development. Marsh restoration associated with the project will provide feeding, breeding, and wintering habitat for colonial and migratory water birds, and provide connective habitat to the Atascosa National Wildlife Refuge. The Non-Federal Sponsor for the project is the Brownsville Navigation District, who has indicated intent to share equally in the feasibility phase cost that would follow a successful reconnaissance study. The Feasibility Cost Sharing Agreement (FCSA) is scheduled to be executed in May 2006.

Fiscal Year 2006 funds are being used to update the Project Management Plan, negotiate the FCSA, and initiate the Initial Plan Formulation of the Feasibility Study to identify potential alternatives, perform initial analyses, and then screen the alternatives down for more detailed review.

Fiscal Year 2007 funds will be used to conduct more detailed environmental, economic, engineering, and real estate reviews of the alternatives. Fiscal Year 2007 funds will also be used on necessary modeling (ship simulation, currents, sediment) studies and various engineering surveys and borings necessary to select the recommended plan.

Brazos Island Harbor, Brownsville Channel, TX (Continued)

The preliminary estimated cost of the feasibility phase is \$6,222,000, 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	\$6,377,000
Reconnaissance Phase (Federal)	155,000
Feasibility Phase (Federal)	3,111,000
Feasibility Phase (non-Federal)	3,111,000

The reconnaissance phase will be completed in May 2006 with the execution of the Feasibility Cost Sharing Agreement. The scheduled completion date of the feasibility phase of the study is to be determined.

24 January 2006

ILLUSTRATION A-2.2
COST-SHARED FEASIBILITY STUDY

APPROPRIATION TITLE: General Investigations, Fiscal Year 2007

Southwestern Division

Study	Total Estimated Federal Cost \$	Allocation Thru FY 2003 \$	Allocation FY 2004 \$	Allocation FY 2005 \$	Allocation FY 2006 \$	Tentative Allocation FY 2007 \$	Additional to Complete After FY 2007 \$
Freeport Harbor, Texas Galveston, TX	2,796,000	255,000	407,000	418,000	495,000	500,000	721,000

The Freeport Harbor project is located along the mid to upper Texas coast, and is formed by the improvement of the Brazos River, Texas, from the mouth about 6 miles upstream to Freeport, Texas. It provides for a 47 foot deep, 400 foot wide entrance channel; 45 foot deep, 400 foot wide main channel; 45 foot deep, 750 foot diameter turning basin; a 45 foot deep, 1200 foot diameter Brazos Port Turning Basin; a 45 foot deep, 1200 foot diameter Upper Turning Basin, 36 foot deep, 200 foot wide Brazos Harbor channel; and 36 foot deep, 750 foot diameter Brazos Harbor turning basin. The local sponsor, the Brazos River Harbor Navigation District, is interested in examining the feasibility of improvements to the existing deep draft navigation channel and to determine the Federal interest in expanding the reach of the navigation channel to the Stauffer Channel and turning basin. Freeport Harbor is an important port for imported petroleum products, exported petrochemicals, and general cargo. The existing channel is not sufficiently deep to fully load the existing tanker fleet serving Freeport Harbor. Further, the 400-foot wide entrance and main channels limit Freeport Harbor to one-way traffic for all vessels and daylight-only operation for larger vessels. The light-loading, one-way traffic and daylight-only operation result in significantly higher cost to users than would be experienced if the harbor were enlarged and deepened. The Brazos River Harbor Navigation District signed a Feasibility Cost Sharing Agreement (FCSA) in July 2003.

Fiscal Year 2006 funds are being used to continue feasibility phase of the study to include an environmental baseline study; cultural resources study; geotechnical and structural design; preparing the economic appendix; and the initial real estate plan.

Fiscal Year 2007 funds will be used to continue the feasibility phase of the study to include preparing engineering appendix (Mar 07); real estate gross appraisal (Nov 06); environmental impact analysis (Sep 07); and initiate draft feasibility report and advanced draft environmental impact study.

The preliminary estimated cost of the feasibility phase is \$5,342,000, 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	\$ 5,467,000
Reconnaissance Phase (Federal)	125,000
Feasibility Phase (Federal)	2,671,000
Feasibility Phase (Non-Federal)	2,671,000

The reconnaissance phase was completed in July 2003. The scheduled completion date of the feasibility phase of the study is to be determined.

**ILLUSTRATION A-2.2
COST-SHARED FEASIBILITY STUDY**

APPROPRIATION TITLE: General Investigations, Fiscal Year 2007

Southwestern Division

Study	Total Estimated Federal Cost \$	Allocation thru FY 2003 \$	Allocation FY 2004 \$	Allocation FY 2005 \$	Allocation FY 2006 \$	Tentative Allocation FY 2007 \$	Additional to Complete After FY 2007 \$
Sabine Neches Waterway, Texas Galveston, TX	6,687,000	4,370,000	593,000	720,000	604,000	400,000	0

The Sabine-Neches Waterway, Texas project is located in Beaumont, Orange, Port Arthur, and Sabine Pass in Jefferson and Orange Counties, Texas; and Cameron and Calcasieu Parishes, Louisiana. The Sabine-Neches Waterway is a 75 mile-long deep draft channel which extends from the 42-foot contour of the Gulf of Mexico through a jettied channel to Port Arthur, to Beaumont via the Neches River Channel, and to Orange via the Sabine River Channel. The Sabine-Neches Waterway serves the Ports of Port Arthur, Beaumont and Orange. Modifying the existing Sabine-Neches Waterway would result in a reduction in delays, increased safety, and increased efficiency of transporting commerce on the existing 40-foot deep waterway. Channel depths of 45, 50, and 55 feet will be investigated, as well as increased channel widths. A major effort in this study will be the coordination of environmentally suitable dredged material placement areas for construction materials, as well as for future channel maintenance. The Jefferson County Waterway and Navigation District is the non-Federal Sponsor for the 40-foot Project to Port Arthur and Beaumont, Texas, and the Orange County Navigation District is the non-Federal Sponsor for the 30-foot Sabine River Project. The non-Federal Sponsor for this feasibility study is the Jefferson County Waterway and Navigation District. The Feasibility Cost Sharing Agreement was executed on 6 March 2000.

Fiscal Year 2006 funds are being used to continue feasibility study activities, which include preparing the draft Feasibility Report, EIS, and Engineering Appendices, and completing the Alternative Formulation Briefing (Sep 06).

Fiscal Year 2007 funds will be used to complete the feasibility study activities.

The estimated cost of the feasibility phase is \$13,124,000, which is to be 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	\$13,249,000
Reconnaissance Phase (Federal)	125,000
Feasibility Phase (Federal)	6,562,000
Feasibility Phase (Non-Federal)	6,562,000

The scheduled completion date of the feasibility phase of the study is April 2007.

ILLUSTRATION A-2.4
PRECONSTRUCTION ENGINEERING AND DESIGN

APPROPRIATION TITLE: General Investigations, Fiscal Year 2007

Division: Southwestern

Study	Total Estimated Federal Cost	Allocation Thru FY 2003 \$	Allocation FY 2004 \$	Allocation FY 2005 \$	Allocation FY 2006 \$	Tentative Allocation FY 2007 \$	Additional to Complete After FY 2007 \$
Texas City Channel, TX Galveston District	7,150,000	2,364,000	454,000	986,000	891,000	900,000	1,555,000

The project is located in Galveston Bay and serves the petrochemical industry to Texas City, Texas, which lies 10 miles northwest of Galveston and 35 miles southeast of Houston. In 2004, the Port of Texas City handled over 65 million short tons of crude oil, petroleum products and chemical products and was ranked the ninth largest port in the U.S. The Texas City Channel is a 7.3-mile long deep draft channel extending from Bolivar Roads in Galveston Bay to Texas City, Texas. The channel has a protective rubble-mound dike, 28,200 feet long along the northerly side of the channel. The benefit-cost ratio for this improvement is 8.3 to 1 as an individual modification based on October 1988 price levels and 7 5/8 percent interest rate. The Port of Texas City is essentially a crude oil importing facility, and development of a deeper channel has been a high priority of the local sponsor and the users since the oil crisis of the mid1970's. The city of Texas City, Texas is the sponsor for the project. In response to local pressure, the Corps pursued the 50-foot Texas City Channel Project as an interim report to the Galveston Bay Area Navigation Study; however, the users withdrew their financial support for the project in August 1988. The non-Federal Sponsor was then forced to ask that the project be deferred when financial support could not be found. By letter, dated March 1997, the city of Texas City indicated a renewed interest, financial support, and a willingness to cost share construction of the project. The non-Federal sponsor has requested reevaluation studies be accomplished to determine the feasibility of deepening the navigation channel to 45 feet, and maintain the present channel and turning basin widths.

The project is authorized for construction by the Water Resources Development Act (WRDA) of 1986 to a depth of 50 feet at a total cost of \$200,000,000, with an estimated first Federal cost of \$130,000,000 and an estimated first non-Federal cost of \$70,000,000. This would result in a non-Federal contribution of 25 percent of project construction costs (including design) for the depth up to 45' and 50% of the cost of construction of the portion of the project which has a depth in excess of 45 feet. In addition, the non-Federal sponsor would be responsible for lands, easements, rights-of-way, and relocations; if their share does not equal 10 percent of the construction cost, a cash payment would be required for the difference.

Fiscal Year 2006 funds are being used to continue reevaluation and environmental studies, including preparing the draft Feasibility Report, Environmental Impact Statement, and Engineering Appendix.

Fiscal Year 2007 funds will be used to complete the reevaluation and environmental studies and initiate the first set of plans and specifications.

The completion date for Preconstruction Engineering and Design is being determined.

COMMERCIAL NAVIGATION

CONSTRUCTION

GREAT LAKES AND OHIO RIVER DIVISION

APPROPRIATION TITLE: Construction General - Locks & Dams (Navigation)

PROJECT: Chickamauga Lock and Dam, Tennessee River, Tennessee (New)

LOCATION: The project is located on the Tennessee River at Mile 471.0 about 7 miles upstream of Chattanooga, Tennessee.

DESCRIPTION: Chickamauga Lock has structural problems that result from ongoing alkali aggregate reaction (AAR) that cause the concrete to physically expand and this is threatening the structural integrity of the lock. A construction start was provided in the FY 2004 Energy & Water Development Appropriations Bill, P.L. 108-357.

AUTHORIZATION: Section 114 of the FY 2003 Energy & Water Development Appropriations Bill, P.L. 108-7.

REMAINING BENEFIT-REMAINING COST RATIO: 2.1 at 7.0 percent.

TOTAL BENEFIT-COST RATIO: 2.0 at 7.0 percent.

INITIAL BENEFIT-COST RATIO: 4.0 at 5 5/8 percent (FY 2004).

BASIS OF BENEFIT COST RATIO: Benefits are from the latest available evaluation approved in June 2005 at FY01 price levels.

SUMMARIZED FINANCIAL DATA

			STATUS (1 Jan 2006)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		\$319,000,000			
Construction General	\$159,500,000				
Inland Waterways Trust Fund	\$159,500,000				
Total Estimated Project Cost		\$319,000,000	Entire Project	10%	TBD

PHYSICAL DATA

Lock Chamber (New) 110 ft. x 600 ft.

Division: Great Lakes and Ohio River

District: Nashville

Chickamauga Lock and Dam, Tennessee River, TN

6 February 2006

SUMMARIZED FINANCIAL DATA (Continued)

	CONSTRUCTION GENERAL	INLAND WATERWAYS TRUST FUND	ACCUM. PCT. OF EST. FED. COST
Allocations to 30 September 2003	3,270,000	0	
Allocations for FY 2004	297,000	3,567,000	
Allocations for FY 2005	7,552,000	7,552,000	
Conference Allowance for FY 2006	5,000,000	5,000,000	
Allocation for FY 2006	4,950,000 1/	4,950,000 1/	
Allocations through FY 2006	16,069,000	16,069,000	10%
Allocation Requested for FY 2007	13,500,000	13,500,000	
Programmed Balance to Complete after FY 2007	129,931,000	129,931,000	
Unprogrammed Balance to Complete after FY 2007	0	0	

1/ Reflects \$100,000 rescinded in accordance with the Department of Defense, Emergency Supplemental Appropriations to Address Hurricanes in the Gulf of Mexico, and Pandemic Influenza Act, 2006, P.L. 109-148.

JUSTIFICATION: The existing 60-foot X 360-foot Chickamauga Lock, which was completed in 1940, is plagued with "concrete growth" resulting from an alkali-aggregate reaction (AAR). This reaction creates a gel that absorbs moisture, swells, and expands the concrete. When the concrete is restrained, the growth increases internal stresses, which causes cracking and movement of the concrete monoliths. This movement causes equipment misalignment as well as structural instability. The growth is continuing, therefore non-standard, major maintenance is significantly increasing, raising both expenses and lock outages. Under an economic scenario, the cost for maintaining the lock will determine when the lock should be closed. With significant annual maintenance, Chickamauga Lock can be economically kept open until at least the year 2010. Beyond that time, the accelerating rate of deterioration will increase both in the frequency and cost of major repairs. As the lock deteriorates, there is the added risk that the owner, Tennessee Valley Authority, could close the lock due to safety concerns. The 110-foot x 600-foot replacement lock will reduce lock transit time and will be consistent with the size of the six locks downstream on the Tennessee River.

FISCAL YEAR 2006: The requested amount will be applied as follows:

Cofferdam Construction	\$ 600,000
Real Estate Acquisition	1,600,000
Planning, Engineering, and Design	7,400,000
Construction Management	300,000
Total	\$9,900,000

FISCAL YEAR 2007: The requested amount will be applied as follows:

Division: Great Lakes and Ohio River

District: Nashville

Chickamauga Lock and Dam, Tennessee River, TN

6 February 2006

Cofferdam Construction	\$ 19,300,000
Utility & Highway Relocations	620,000
Planning, Engineering, and Design	5,700,000
Construction Management	1,220,000
Hazardous, Toxic & Radioactive Waste Investigations	160,000
Total	\$27,000,000

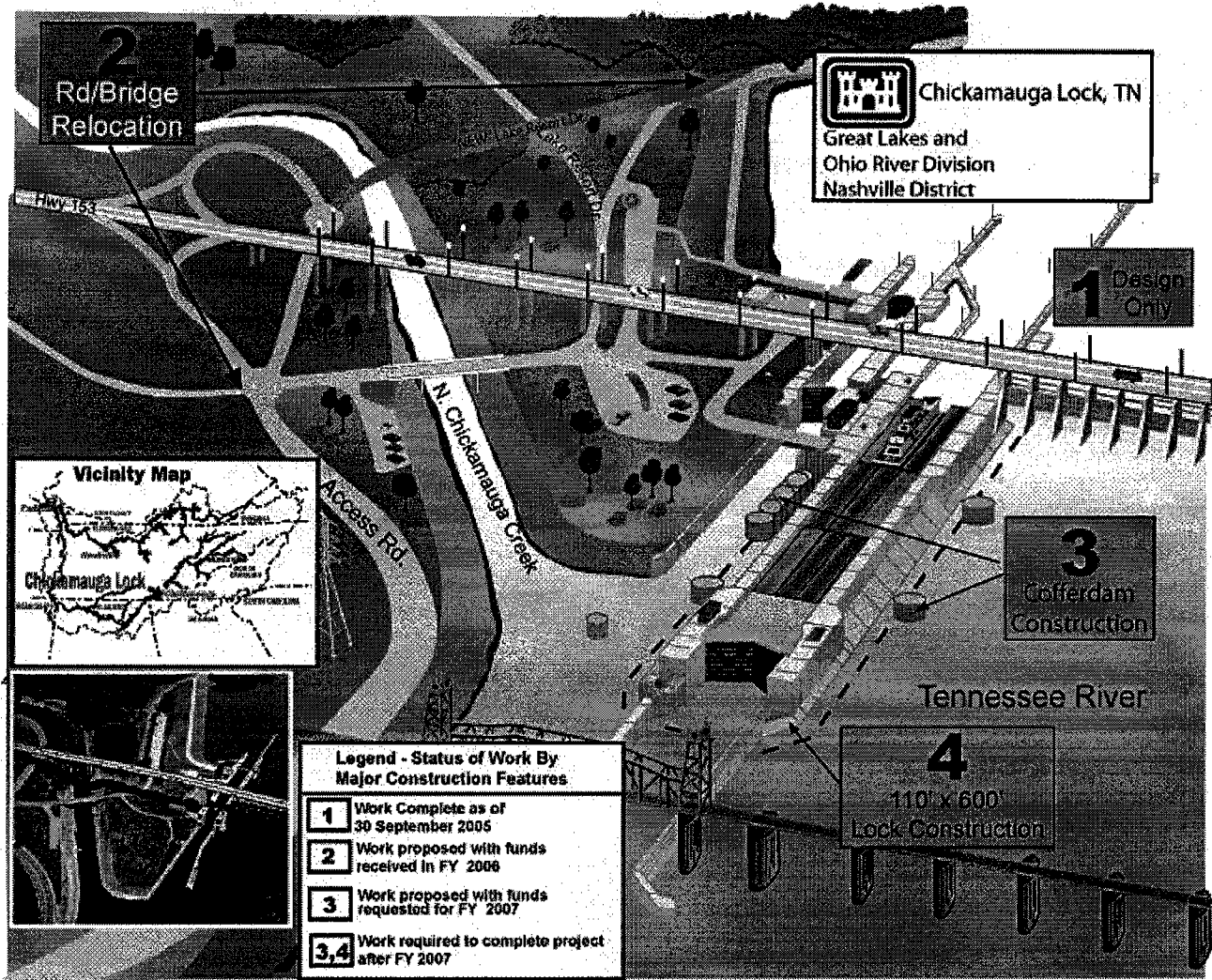
NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, 50 percent of the total cost for the project will be derived from the Inland Waterways Trust Fund.

STATUS OF LOCAL COOPERATION: None required.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$319,000,000 is the initial estimate submitted to Congress.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: A Final Supplemental Environmental Impact Statement was included in the Feasibility Report dated February 26, 2002. The Record of Decision was signed on 20 July 2004.

OTHER INFORMATION: Funds to initiate construction were appropriated in FY 2004.



6 February 2006

APPROPRIATION TITLE: Construction General - Locks and Dams (Navigation)

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

LOCATION: 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 three projects are located on the lower portion of the Monongahela River near the city of Pittsburgh, Pennsylvania and are located in Allegheny, Washington and Westmoreland Counties. Measured from the Point in Pittsburgh, Locks and Dam 2 is located at river mile 11.2, Locks and Dam 3 at river mile 23.8, and Locks and Dam 4 at river mile 41.5. Six other navigation projects situated upstream of Locks and Dam 4 provide a navigable waterway to Fairmont, West Virginia. At the Point in Pittsburgh, the Monongahela River joins with the Allegheny River to form the Ohio River.

DESCRIPTION: Existing Locks and Dam 2 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. Existing Locks and Dam 3 consists of locks with chamber dimensions of 56 by 720 feet and 56 by 360 feet and a 670-foot fixed-crest dam. Existing Locks and Dam 4 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. The authorized projects consist of a new gated dam and a rehabilitated auxiliary chamber floodway bulkhead structure at Locks and Dam 2; new twin 84 by 720 foot locks and below-dam scour protection of Locks and Dam 4; raising pool 2 by 5 feet and lowering pool 3 by 3.2 feet; removal of Locks and Dam 3; and associated 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 Locks and Dam 2 began in 1999 and is now complete. Efforts are now focused on the new twin locks at Locks 4. All work is programmed.

AUTHORIZATION: Water Resources Development Act of 1992.

REMAINING BENEFIT - REMAINING COST RATIO: 3.0 to 1 at 7 percent.

TOTAL BENEFIT - COST RATIO: 1.4 to 1 at 7 percent.

INITIAL BENEFIT-COST RATIO: 4.2 to 1 at 8 1/4 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 95 rate when CG funds were first expended.

Division: Great Lakes & Ohio River

District: Pittsburgh

Monongahela River, Locks and Dams 2, 3, and 4 Project
Pennsylvania

6 February 2006

SUMMARIZED FINANCIAL DATA

			STATUS (24 Jan 2006)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		\$ 750,000,000	Entire Project	40	2019
General Appropriations	375,000,000				
Inland Waterway Trust Fund	375,000,000				
Estimated Non-Federal Cost		0			
Total Estimated Project Cost		\$ 750,000,000			

	GENERAL APPNS.	INLAND WATERWAYS TRUST FUND	ACCUM. PCT.OF EST. FED.COST
Allocations to 30 September 2003	\$ 112,379,700	\$ 125,102,000	
Allocations for FY 2004	\$ 15,590,000	\$ 15,590,000	
Allocations for FY 2005	\$ 12,509,000	\$ 12,509,000	
Conference Allowance for FY 2006	\$ 25,400,000	\$ 25,400,000	
Allocation for FY 2006	\$ 25,146,000	\$ 25,146,000 /1	
Allocation through FY 2006	\$ 165,624,700	\$ 178,347,000	
Allocation Requested for FY 2007	31,386,000	31,386,000	54%
Programmed Balance to Complete after FY 2007	177,989,300	165,267,000	100%
Unprogrammed Balance to Complete after FY 2007	0	0	

1/ Reflects \$508,800 rescinded in accordance with the Department of Defense, Emergency Supplemental Appropriations to Address Hurricanes in the Gulf of Mexico, and Pandemic Influenza Act, 2006, P.L. 109-148.

Division: Great Lakes & Ohio River

District: Pittsburgh

Monongahela River, Locks and Dams 2, 3, and 4 Project
Pennsylvania

6 February 2006

PHYSICAL DATA

Locks and Dams 2 and 3:

- New gated dam 2 (Complete)
- Rehabilitated Auxiliary Chamber Floodway L&D 2 (Complete)
- Bulkhead Structure L&D 2 (Complete)
- Remove Locks and Dam 3
- Raise pool 2 by 5 feet and lower pool 3 by 3.2 feet
- Public Facility Relocations (Partially Complete)

Locks and Dam 4:

- New twin 84 by 720 foot locks
- Scour Protection

JUSTIFICATION: The projects are located on the Monongahela River near Pittsburgh. The major problems with the projects are deteriorated structural condition and limited lock capacity. These problems are expected to become increasingly severe as the projects age. The extreme structural deterioration of Locks and Dam 3 and Locks 4 is of paramount concern. Major repairs and rehabilitation will not prevent structural failure. There is a significant probability of structural failure and loss of navigation on the Monongahela River. Significant risk mitigation can be achieved by completing pool 2 (new Braddock pool) relocations and by raising the Braddock pool to its authorized level, thus reducing the stresses on Locks and Dam 3. The continued viability of the Lower Monongahela River navigation system is vital to southwestern Pennsylvania and northeastern West Virginia. Locks and Dam 2, 3, and 4 cumulatively provide over \$308M in transportation benefits to the region and over 14,000 direct jobs. Loss of these benefits due to the failure of navigation infrastructure would have an extremely detrimental effect to the regional and local economy. Average annual benefits are as follows:

Annual Benefits	Amount @7%
Commercial Navigation	\$ 39,610,400
Maintenance Savings	124,330,100
Replacement of Shore side Utilities	2,000,000
Operations Savings	1,000,000
Other	600,000
Total	\$167,540,500

FISCAL YEAR 2006: Work to be accomplished in FY 2006 includes continuation of construction of river wall at Charleroi, relocations (including McKeesport, Duquesne, North Versailles, Glassport, and Norfolk Southern), and the continuation of design efforts for the Charleroi Locks.

Division: Great Lakes & Ohio River

District: Pittsburgh

Monongahela River, Locks and Dams 2, 3, and 4 Project
Pennsylvania

6 February 2006

FISCAL YEAR 2007: The requested amount will be applied as follows:

Continue Real Estate Acquisition	620,000
Continue Construction	39,128,000
Planning, Engineering and Design	3,641,000
Continue Construction Management	1,710,000
Relocations	17,623,000
Total	\$62,722,000

NON-FEDERAL COSTS: In accordance with the cost-sharing and financing concepts reflected in the Water Resource Development Act of 1986, 50% of the total cost of construction will be derived from the Inland Waterways Trust Fund.

Construction of the projects will require 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 of adapting these facilities to new project conditions is \$111,000,000.

STATUS OF LOCAL COOPERATION: None required.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$750,000,000 remains unchanged from the last estimate presented to Congress (FY 2005).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: 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 Finding of No Significant Impacts has been completed pursuant to NEPA. A second Supplemental Environmental Impact Statement is currently being prepared to reflect changes in the project through FY05.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1992. Funds to initiate construction were appropriated in FY 1995. The current scheduled completion date for the project is 2019, based on an anticipated future constrained funding profile. With the extended schedule, there is great concern with the condition of Locks and Dam 3, now scheduled for removal in 2016. The District is evaluating the condition of L/D 3 in FY 2006 to determine what actions need to be taken to reduce the risk of failure until the dam can be removed. The most recent periodic inspection of L/D 3 and subsequent diver's inspection of the dam showed a progressive failure of the dam. Construction to stabilize the dam will begin in FY 2006 using O&M funds.

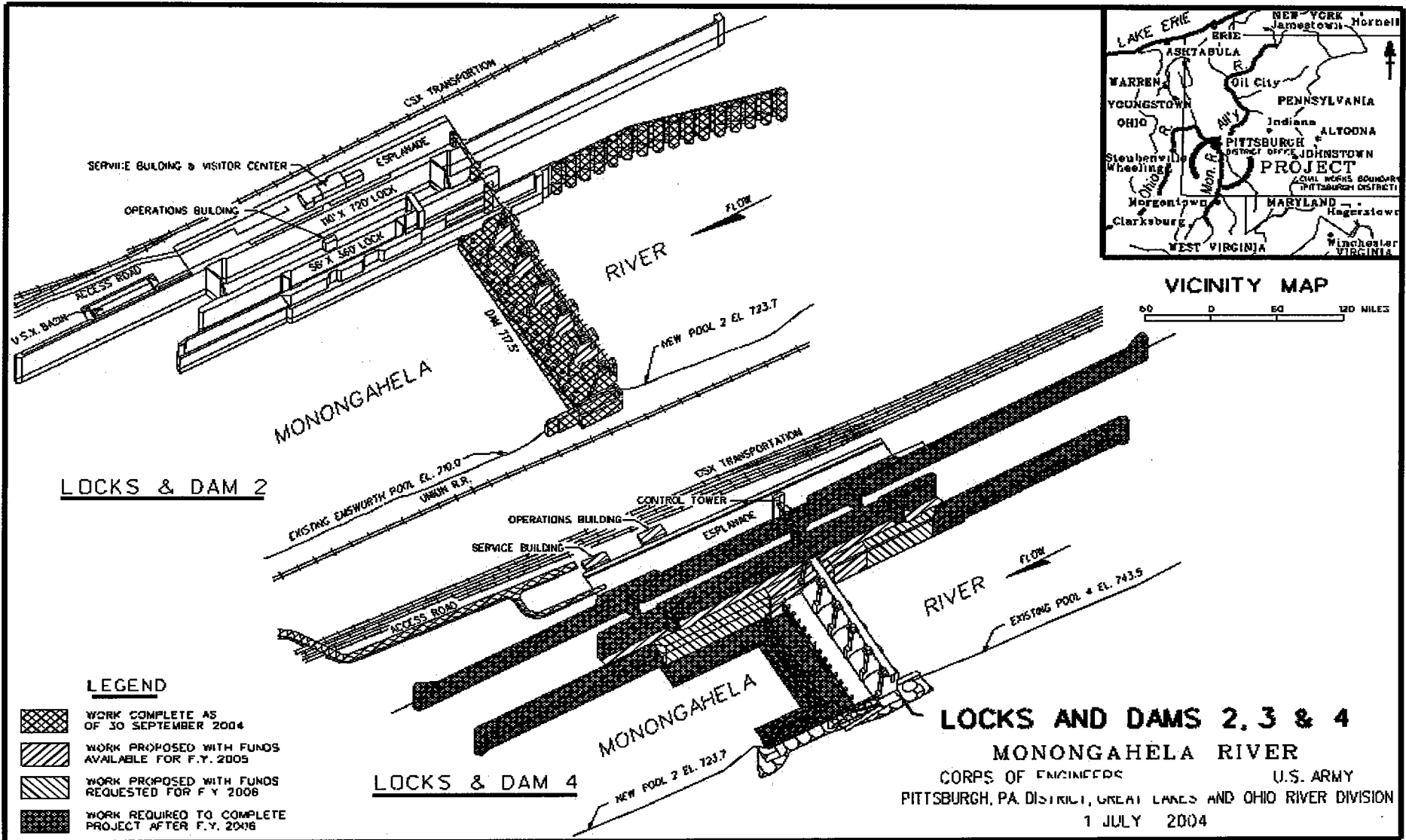
Locks and Dam 3 and Locks 4 have already outlived their design life, and their respective removal and replacement is critical to keeping the Lower Monongahela River system a reliable and efficient component of the Inland Waterway Navigation System.

Division: Great Lakes & Ohio River

District: Pittsburgh

Monongahela River, Locks and Dams 2, 3, and 4 Project
Pennsylvania

6 February 2006



6 February 2006

APPROPRIATION TITLE: Construction, General - Locks and Dams (Navigation)

PROJECT: McAlpine Locks and Dam, Kentucky and Indiana (Continuing)

LOCATION: The project is located on the Ohio River at Louisville, Jefferson County, Kentucky, Ohio River mile 604.0 to 608.0.

DESCRIPTION: The modernization of the existing facility will replace a 600-foot auxiliary lock chamber and an inactive 360-foot 2-stage chamber with a 1,200-foot lock on the Kentucky bank side of the existing lock and dam. This effort will result in twin 1,200-foot locks for tow traffic. Construction of a new bridge is required to continue access to Shippingport Island and the Louisville Gas & Electric hydroelectric power facility.

AUTHORIZATION: The Water Resources Development Act of 1990.

REMAINING BENEFIT-REMAINING COST RATIO: 9.3 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 1.7 to 1 at 7 percent.

INITIAL BENEFIT-COST RATIO: 1.8 to 1 at 8 percent (FY 1996).

BASIS OF BENEFIT-COST RATIO: Benefits are based on the General Design Memorandum, Project Economic Update approved in March 1994, at 1994 price levels.

SUMMARIZED FINANCIAL DATA		STATUS (1 Jan 2006)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		Entire Project	62	To Be Determined
General Appropriations	197,500,000			
Inland Waterways Trust Fund	197,500,000			
Estimated Non-Federal Cost	0			
Total Estimated Project Cost	\$ 395,000,000			
		PHYSICAL DATA		
		Wharf Extension		35,400 sf
		Boat Mooring Facility		6,100 sf
		Fixed Bridge		2,100 ft
		Lock Chamber (New)		110 by 1,200 ft
		Buildings:		
		Resident Engineer		6,100 sf
		Operations Service		2,300 sf
		Storage		5,100 sf

Great Lakes and Ohio River

District: Louisville

McAlpine Locks and Dam, KY and IN

6 February 2006

30

SUMMARIZED FINANCIAL DATA (Continued)	GENERAL APPNS	INLAND WATERWAYS TRUST FUNDS	ACCUM. PCT. OF EST. FED. COST
Allocations to 30 September 2003	\$ 54,341,000	\$ 54,341,000	28
Allocations for FY 2004	\$ 28,946,750	\$ 28,946,750	42
Allocations for FY 2005	\$ 30,427,000	\$ 30,427,000	58
Conference Allowance for FY 2006	35,000,000	35,000,000	
Allocation for FY 2006 1/	34,650,000	34,650,000	
Allocations through FY 2006	148,364,750	148,364,750	78
Allocation Requested for FY 2007	35,000,000	35,000,000	93
Programmed Balance to Complete after FY 2007	14,135,250	14,135,250	100
Unprogrammed Balance to Complete after FY 2007	\$ 0	\$ 0	

1/ Reflects \$700,000 rescinded in accordance with the Department of Defense, Emergency Supplemental Appropriations to Address Hurricanes in the Gulf of Mexico, and Pandemic Influenza Act, 2006, P.L. 109-148.

JUSTIFICATION: The existing navigation locks are on the Kentucky side of the river. They consist of a 110 by 1,200-foot main lock that was placed in operation in 1961 and two auxiliary locks that were completed in 1930 (110 by 600 foot) and 1921 (56 by 360 foot, closed since 1971). The modernization of the existing facility will replace the existing auxiliary locks with a new 110 by 1,200 foot lock. The new lock is in response to identified annual increases in tonnage levels and delays. The McAlpine Locks is one of the Inland Waterways Users Board Top Priority Capstone activities. Tonnages through the McAlpine Locks are expected to grow annually from the 1993 figure of 63.2 million tons to 127 million tons in 2060. About 40 percent of current traffic is coal. Currently, the average delay is 0.8 hours per tow. With the existing project, by the year 2060, the average delay is projected to be 40 hours per tow. With the lock addition, the average delay is projected to be 1.5 hours per tow. Other project components include a fixed bridge spanning 2,100 feet, including 840 feet of embankment, and three one-story buildings for offices, service, and storage, an industrial wharf for miter gate erection and storage, and a boat mooring facility for small workboats. Construction of the 1,200 foot lock on an efficient schedule is imperative to minimize the risks associated with operating on one lock until the new lock is operational.

Average annual benefits at 7% percent are as follows:

Annual Benefits	Amount
Navigation from Reduced Delays	\$ 40,525,208
Total	\$ 40,525,208

FISCAL YEAR 2006: The allocated amount will be applied as follows:

Continue Lock Construction	\$ 63,000,000
Continue Bridge Construction	2,300,000
Planning, Engineering, and Design	1,200,000
Construction Management	2,800,000
Total	\$ 69,300,000

FISCAL YEAR 2007: The requested amount will be applied as follows:

Continue Lock Construction	\$ 66,000,000
Planning, Engineering, and Design	1,200,000
Construction Management	2,800,000
Total	\$ 70,000,000

NON-FEDERAL COSTS: 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.

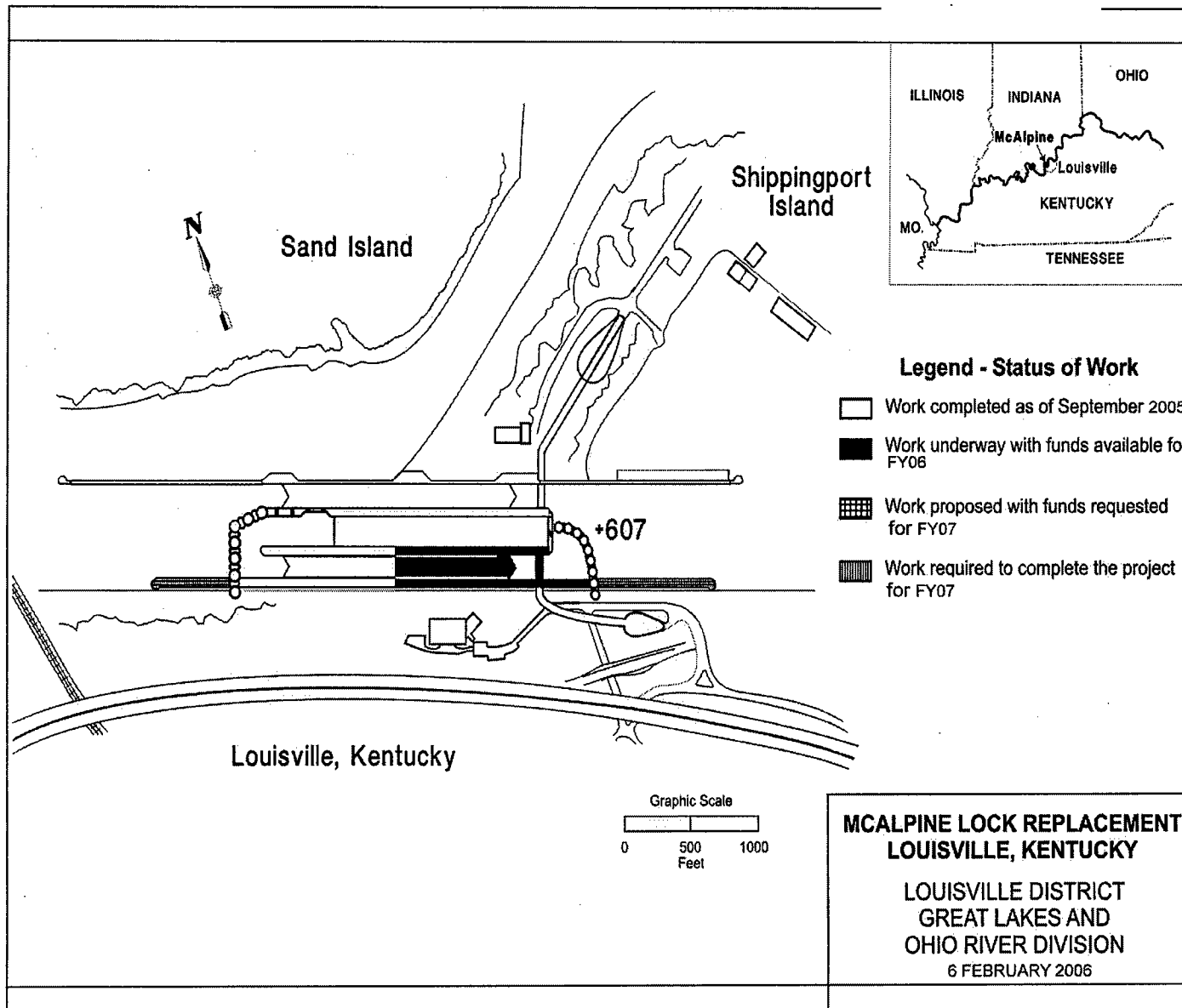
STATUS OF LOCAL COOPERATION: None required.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$395,000,000 is an increase of \$45,000,000 from the latest cost estimate (\$350,000,000) presented to Congress (FY 2006). The change includes the following item:

Item	Amount
Post Contract Award and Other Estimating Adjustments	\$45,000,000
Total	\$45,000,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An Environmental Assessment (EA) and a Finding of No Significant Impacts (FONSI) have been signed and included in the Final Feasibility Report. In addition, a Section 404 (b) (1) Evaluation has been completed and 401 Water Quality Certification has been obtained from the Kentucky Division of Water. The final Environmental Impact Statement (EIS) was filed with the Environmental Protection Agency in August 1990. A supplemental EIS updating project requirements was completed in FY 1998.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1990. Funds to initiate construction were appropriated in FY 1996. The scheduled completion date is the same (To Be Determined) as last presented to Congress (FY 2006).



APPROPRIATION TITLE: Construction, General - Locks and Dams (Navigation)

PROJECT: Marmet Locks and Dam, West Virginia (Continuing)

LOCATION: Marmet Locks and Dam is located in Kanawha County near Belle, West Virginia, on the Kanawha River approximately 68 miles above its confluence with the Ohio River. The pool is located entirely in West Virginia.

DESCRIPTION: The proposed modernization plan includes the construction of an additional 110 foot by 800 foot lock on the right descending bank landward of the existing locks. The plan includes the continued use of both existing 56 foot by 360 foot lock chambers as auxiliary locks. The existing dam and the hydroelectric power plant will also remain in operation. A total of 216 real estate tracts are required to support the project. Of the 216 tracts, 179 are residential, 9 are commercial and 28 are vacant. All work is programmed.

AUTHORIZATION: Water Resources Development Act of 1996, sec. 101(a)(31); Energy and Water Development Appropriations Act, FY 2006, section 112.

REMAINING BENEFIT-REMAINING COST RATIO: 23.5 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 2.5 to 1 at 7 percent.

INITIAL BENEFIT-COST RATIO: 3.3 to 1 at 7 1/8 percent (FY 1998).

BASIS OF BENEFIT-COST RATIO: Economic Update dated June 1996 and at October 1995 price levels.

SUMMARIZED FINANCIAL DATA		STATUS (1 Jan 2006)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost				
		Entire Project	68	To Be Determined
		Lock Operational	58	To Be Determined
Construction General	179,650,000			
Inland Waterways Trust Fund	179,650,000			
Total Estimated Project Cost	\$359,300,000			

Division: Great Lakes & Ohio River

District: Huntington

Marmet Locks and Dam, WV

6 February 2006

SUMMARIZED FINANCIAL DATA (Continued)

	GENERAL APPNS.	INLAND WATERWAYS TRUST FUNDS	ACCUM. PCT. OF EST. FED. COST
Allocations to 30 September 2003	\$ 57,067,486	\$ 57,067,486	
Allocations for FY 2004	27,169,000	27,169,000	
Allocations for FY 2005	30,382,000	30,382,000	
Conference Allowance for FY 2006	36,750,000	36,750,000	
Allocation for FY 2006	36,382,500 1/	36,382,500 2/	
Allocations through FY 2006	151,000,986	151,000,986	84
Allocation Requested for FY 2007	25,400,000	25,400,000	98
Programmed Balance to Complete after FY 2007	3,249,014	3,249,014	
Unprogrammed Balance to Complete after FY 2007	0	0	

1/ Reflects \$367,500 rescinded in accordance with the Department of Defense, Emergency Supplemental Appropriations to Address Hurricanes in the Gulf of Mexico, and Pandemic Influenza Act, 2006, P.L. 109-148.

2/ Reflects \$367,500 rescinded in accordance with the Department of Defense, Emergency Supplemental Appropriations to Address Hurricanes in the Gulf of Mexico, and Pandemic Influenza Act, 2006, P.L. 109-148.

PHYSICAL DATA

Lock:

Number – 3
Existing Chambers - 2 - 56 ft. x 360 ft.
Additional Chamber - 1 - 110 ft. x 800 ft.
Lift - 24 ft.

Lands and Damages:

Acres - 21, Existing Locks and Dam
- 103, New Lock

Structures - 242 Residences
- 10 Businesses

JUSTIFICATION: Marmet Locks and Dam links the Kanawha Valley, an important chemical and coal producing area, to its product markets and supply areas. During 2004, 13.8 million tons of traffic locked through Marmet. Coal is the major commodity shipped on the Kanawha River, accounting for 93 percent of the total tonnage at Marmet. The Marmet project presents a significant impediment to the efficient flow of waterborne commerce due to its outdated features. Amendments to the Clean Air Act, passed in November 1990, have caused an increase in demand for the Kanawha River Basin's low-sulphur coal. When the new Winfield lock came on line in November 1997, the industry's helper boats relocated from Winfield to Marmet. Lockages at Marmet immediately increased 30% to 50% in magnitude. The congestion is expected to increase as traffic on the river increases.

Division: Great Lakes & Ohio River

District: Huntington

Marmet Locks and Dam, WV

6 February 2006

The average annual benefits, at 7 percent, are \$44,509,202, all commercial navigation.

FISCAL YEAR 2006: The amount provided will be applied as follows:

Continue Lock Construction	\$ 63,256,000
Continue Real Estate Disposal	26,000
Complete Environmental Mitigation	400,000
Complete Cultural Mitigation	264,000
Purchase Operating Equipment	1,600,000
Planning, Engineering and Design	3,423,000
Construction Management	3,796,000
Total	\$ 72,765,000

FISCAL YEAR 2007: The requested amount will be applied as follows:

Continue Lock Construction	\$ 43,940,000
Continue Real Estate Disposal	26,000
Purchase Operating Equipment	2,000,000
Planning, Engineering and Design	2,198,000
Construction Management	2,636,000
Total	\$ 50,800,000

NON-FEDERAL COST: In accordance with the cost sharing and financing contained in the Water Resources Development Act of 1986, 50 percent of the total costs 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 \$359,300,000 is an increase of \$26,300,000 from the latest estimate (\$333,000,000) presented to Congress (FY 2006). This change includes the following items.

Item	Amount
Price Escalation on Construction Features	\$ 1,146,000
Post Contract Award and other Estimating Adjustments	25,154,000
Total	\$26,300,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final EIS was filed with the Environmental Protection Agency (EPA) on January 26, 1994.

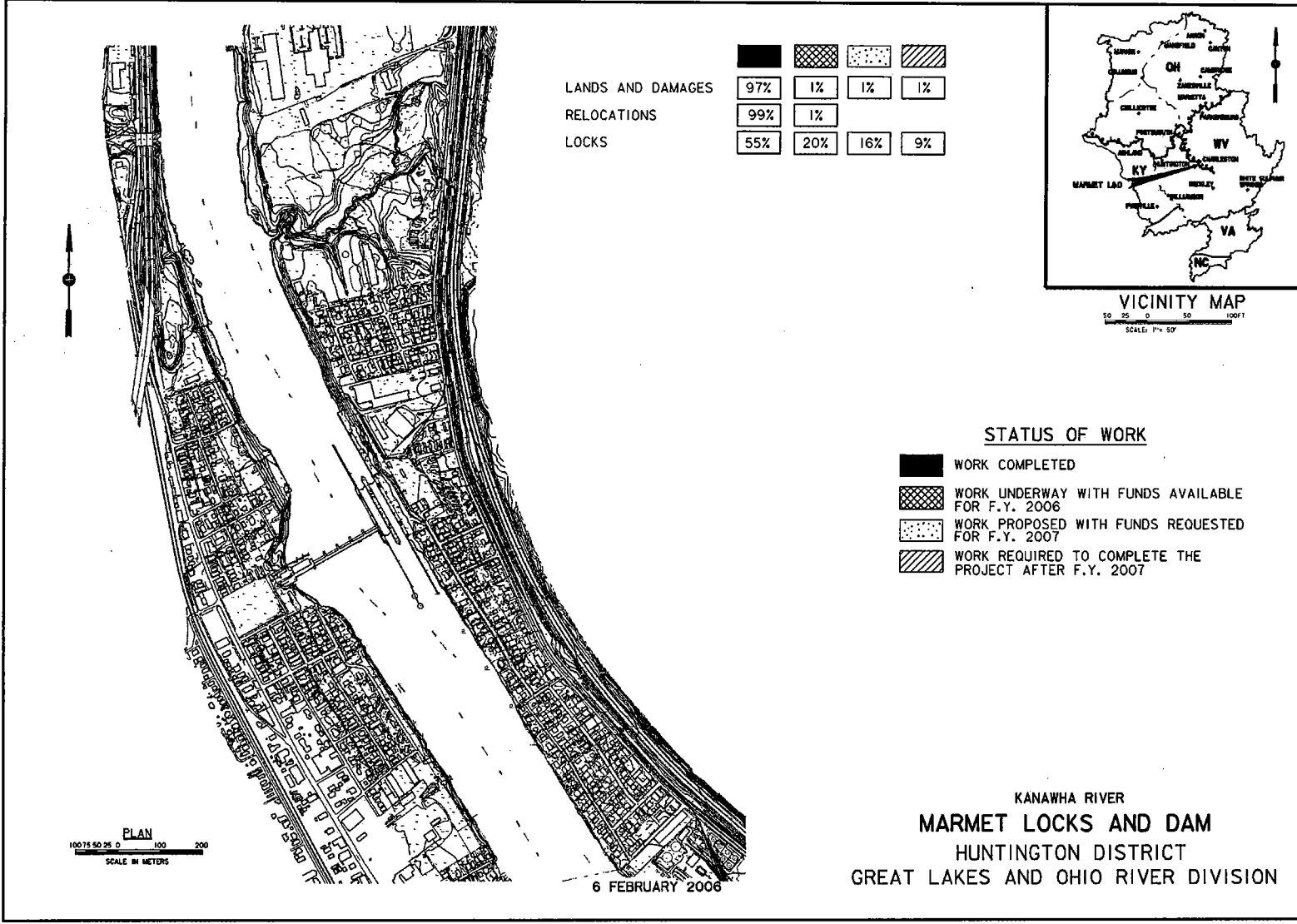
OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1994. Funds to initiate construction were appropriated in FY 1998.

Environmental Site Assessments (Phase I and II) identified soil contamination at levels sufficient to warrant remedial activity. None of the contamination identified is considered hazardous; rather, it is a non-hazardous contaminant which requires that the soil be disposed of in a landfill in conformance with Subtitle D of the Resource Conservation and Recovery Act (RCRA). All environmental remedial actions are complete. No groundwater contamination was found.

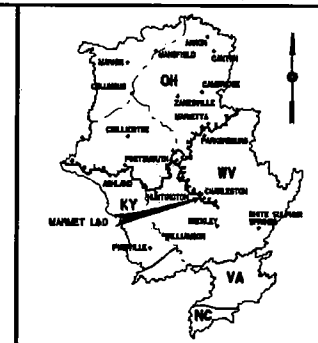
The Corps developed plans for the new lock construction to have minimum interference with river traffic during construction, but some interference is expected. The Corps established dialogue with the towing industry to determine the best methods to use to minimize interference. Installation of additional navigation mooring facilities was completed in December 2002. A helper boat was used to alleviate construction impacts associated with cofferdam construction which is now complete.

The project cost was reauthorized to \$358,000,000 by P.L. 109-103, section 112.

The scheduled completion date is the same as the latest presented to Congress (FY 2006), "To Be Determined."



LANDS AND DAMAGES	97%	1%	1%	1%
RELOCATIONS	99%	1%		
LOCKS	55%	20%	16%	9%



VICINITY MAP
SCALE: 1" = 50'

STATUS OF WORK

- WORK COMPLETED
- WORK UNDERWAY WITH FUNDS AVAILABLE FOR F.Y. 2006
- WORK PROPOSED WITH FUNDS REQUESTED FOR F.Y. 2007
- WORK REQUIRED TO COMPLETE THE PROJECT AFTER F.Y. 2007

KANAWHA RIVER
MARMET LOCKS AND DAM
 HUNTINGTON DISTRICT
 GREAT LAKES AND OHIO RIVER DIVISION

6 FEBRUARY 2006

PLAN
 100 75 50 25 0 100 200
 SCALE IN METERS

APPROPRIATION TITLE: Construction, General – Locks and Dams (Navigation)

PROJECT: Ohio River, Emsworth Locks and Dams Project, Pennsylvania (Major Rehabilitation) (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 an island (Neville). 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 proposed work is directed only to problems with the dam gates: dam operating equipment and machinery, and the scour protection downstream of the dams. Possible proposed work at the locks is being evaluated separately. The main channel dam consists of 8 - 100 ft vertical lift gates and a 34 ft. fixed crest weir, while the back channel dam consists of 6 - 100 ft. gates. Five of the back channel gates are vertical lift gates and the other gate is a tainter-style gate referred to as a "Sidney Gate". The proposed project includes replacement of the dam gates, gate hoisting machinery, electrical power and distribution system and scour protection system. The project would also include work to the service bridge and localized areas of dam concrete deterioration.

AUTHORIZATION: Rivers and Harbors Act dated July 1918.

REMAINING BENEFIT - REMAINING COST RATIO: 2.7 to 1 at 7%

TOTAL BENEFIT - COST RATIO: 2.0 to 1 at 7%

INITIAL BENEFIT – COST RATIO: 2.5 TO 1 at 6 3/8%

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

Ohio River, Emsworth Locks and Dams Project,
Pennsylvania (Major Rehabilitation)
(Dam Safety Assurance)

24 January 2006

SUMMARIZED FINANCIAL DATA

Estimated Federal Cost	\$78,260,000
General Appropriations	\$39,130,000
Inland Waterway Trust Fund	\$39,130,000
Estimated Non-Federal Cost\$	0
Total Estimated Project Cost	\$78,260,000

STATUS
(24 Jan 2006)

PERCENT
COMPLETE

PHYSICAL
COMPLETION
SCHEDULE

Entire Project

4%

To Be Determined

PHYSICAL DATA:

- 13 Vertical Lift Gates
- Emergency Bulkheads
- Dam Lift Gate Operating Machinery
- Scour Protection
- Concrete repairs integral to Lift Gates and Operating Machinery
- Service Bridge Deck and Crane Rail System

	GENERAL APPNS	INLAND WATERWAYS TRUST FUNDS	ACCUM. PCT. OF EST. FED. COST
Allocations to 30 September 2003	\$ 0	\$0	
Allocations for FY 2004	\$ 5,000	\$0	
Allocations for FY 2005	\$ 3,500,000	\$0	
Conference Allowance for FY 2006	\$ 15,000,000	0	1/
Allocation for FY 2006	\$ 14,850,000	\$0	
Allocations through FY 2006	\$ 18,355,000	\$0	
Allocation requested for FY 2007	\$ 0	\$17,000,000	45.2%
Programmed Balance to Complete after FY 2007	\$20,775,000	\$22,130,000	100%
Unprogrammed Balance to Complete after FY 2007	\$0	\$0	

1/ Reflects \$150,000 rescinded in accordance with the Department of Defense, Emergency Supplemental Appropriations to Address Hurricanes in the Gulf of Mexico, and Pandemic Influenza Act, 2006, P.L. 109-148.

Division: Great Lakes & Ohio River

District: Pittsburgh

Ohio River, Emsworth Locks and Dams Project,
Pennsylvania (Major Rehabilitation)
(Dam Safety Assurance)

24 January 2006

JUSTIFICATION: Emsworth Dams are presently in an exigent situation. There are 10 foot deep scour holes and 65 percent of the erosion protection was missing downstream of the dams. Failure of one of any of the thirteen lift gates would most 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 one 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 about 24 million tons with the principle commodity being coal destined for electric generating plants and to the nation's largest coke plant. The total benefits of traffic through Emsworth reflect a savings of \$300 million each year over other modes of transportation. During low flow conditions loss of the pools of the Ohio, Monongahela and Allegheny Rivers at the Point of Pittsburgh may occur and all navigation would cease. 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/Enslow 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 would be directly at risk due to loss of navigation and disruption to services and material. The loss in wages alone would range from \$1.5 M to \$2.2 M per day. The project is cost-effective and in accordance with current Administration policy for navigation.

FISCAL YEAR 2006: Complete design and begin construction of the main channel erosion protection, bulkhead hoist lifting equipment, and the service bridge repairs. Continue construction of the back channel gate and machinery replacements. Continue and complete bulkhead and lift gate supply contracts.

FISCAL YEAR 2007: The requested amount will be applied as follows:

Continue Construction	\$ 15,750,000
Planning, Engineering, and Design	500,000
Construction Management	750,000
Total	\$ 17,000,000

NON-FEDERAL COSTS: N/A

STATUS OF LOCAL COOPERATION: None required

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$78,260,000 is the first to be presented to Congress.

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

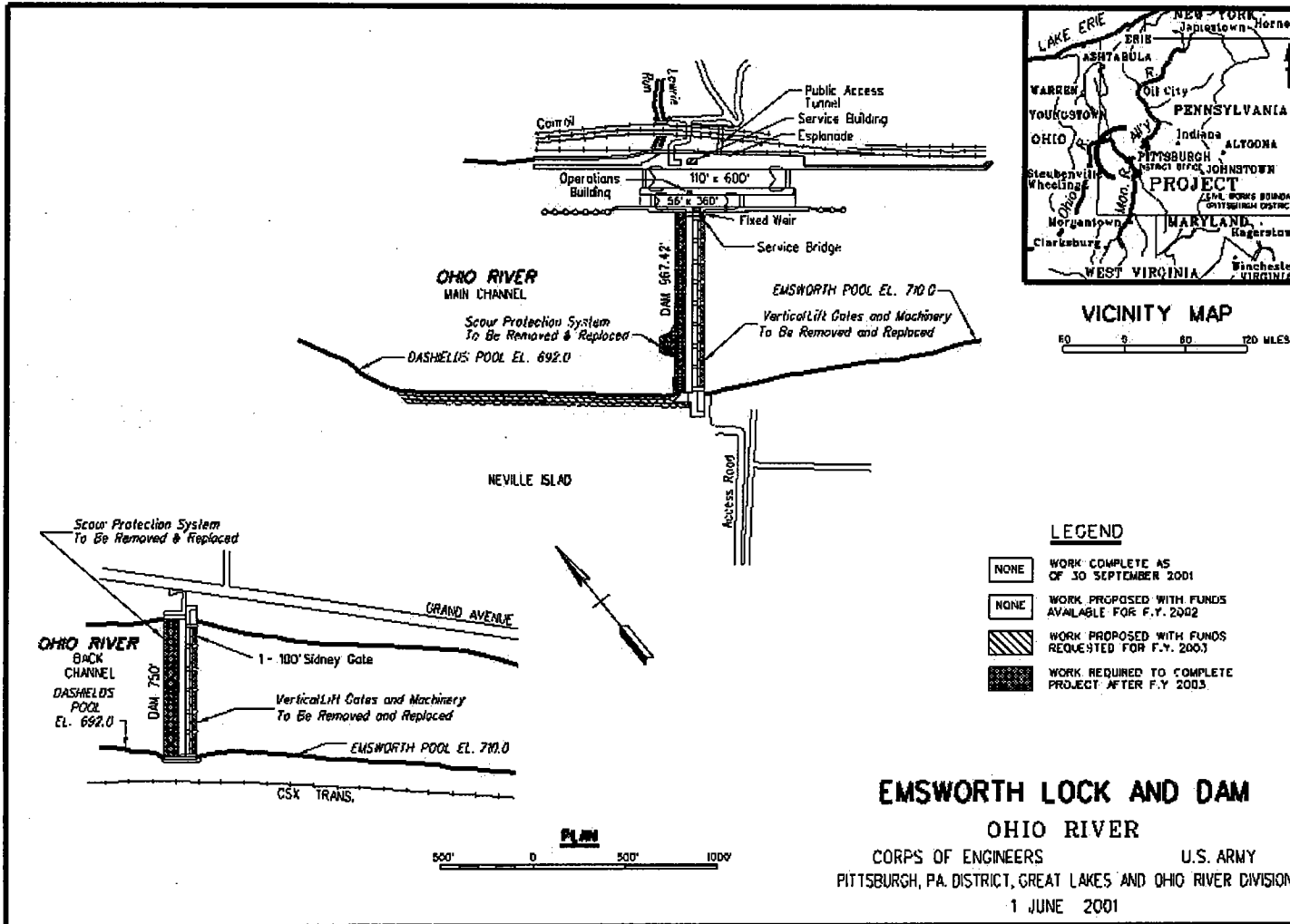
OTHER INFORMATION: Project is high priority. A total of \$3,505,000 of CG "wedge" funds has been provided through the Dam Safety and Seepage/Stability Correction program to initiate the Emsworth Locks and Dams Major Rehabilitation Project, PA. This project was presented to Congress in 2006. The scheduled completion date is "To Be Determined".

Division: Great Lakes & Ohio River

District: Pittsburgh

Ohio River, Emsworth Locks and Dams Project,
 Pennsylvania (Major Rehabilitation)
 (Dam Safety Assurance)

24 January 2006



Division: Great Lakes & Ohio River

District: Pittsburgh

Ohio River, Emsworth Locks and Dams Project,
Pennsylvania (Major Rehabilitation)
(Dam Safety Assurance)

24 January 2006

APPROPRIATION TITLE: Construction, General - 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 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: Water Resources Development Act of 1988.

REMAINING BENEFIT-REMAINING COST RATIO: 15.7 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 4.9 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 Benefit Update, dated October, 1990.

SUMMARIZED FINANCIAL DATA			STATUS (1 Jan 2006)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		\$1,450,000,000	Entire Project	48	To Be Determined
General Appropriations	725,000,000				
Inland Waterways Trust Fund	725,000,000				
PHYSICAL DATA					
Estimated Non-Federal Cost		0	Lock - 110 by 1,200 foot Chambers		2
			Dam - Navigable Pass		1,400 ft.
Total Estimated Project Cost		\$ 1,450,000,000	Fixed Weir		561 ft.
			Tainter Gates		744 ft.
			Acres - Dam		123 acres
			Road		21 acres
			Disposal Area		114 acres
			Flow Easements		35 acres
			INLAND WATERWAYS	ACCUM. PCT. OF EST.	
Division: Great Lakes & Ohio River	GENERAL	District: Louisville			Olmsted Locks & Dam, IL. & KY

SUMMARIZED FINANCIAL DATA (Continued)

	APPNS.	TRUST FUNDS	FED. COST
Allocations to 30 September 2003	\$ 300,115,500	\$ 300,115,500	
Allocations for FY 2004	16,267,500	16,267,500	
Allocations for FY 2005	29,372,500	29,372,500	
Conference Allowance for FY 2006	45,000,000	45,000,000	
Allocation for FY 2006 1/	44,550,000	44,550,000	
Allocations through FY 2006	390,305,500	390,305,500	59.8
Allocation Requested for FY 2007	55,000,000	55,000,000	67.3
Programmed Balance to Complete after FY 2007	279,694,500	279,694,500	100.0
Unprogrammed Balance to Complete after FY 2007	\$ 0	\$ 0	

1/ Reflects \$ 900,000 rescinded in accordance with the Department of Defense, Emergency Supplemental Appropriations to Address Hurricanes in the Gulf of Mexico, and Pandemic Influenza Act, 2006, P.L. 109-148.

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 Locks and Dam will replace existing Ohio River Locks and Dams 52 and 53, which are over 70 years old. Both projects have temporary lock chambers that are inefficient and neither project conforms to current design criteria for structural stability. Commercial navigation in 2004 was 95 million tons through Lock 52 and 85 million tons through Lock 53. Over the last ten years, tonnage has been relatively constant, varying between 88 and 98 million tons. 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 1999 was estimated at \$20 billion. Energy-related commodities comprised approximately 35 percent of the total tonnage, aggregates 16 percent and grains and chemicals each contributing approximately 11 percent, each, of total tonnage. 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 \$532 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 are as follows:

Annual Benefits	Amount
Navigation	\$ 531,885,211
Total	\$ 531,885,211

FISCAL YEAR 2006: The allocated amount will be applied as follows:

	Continue Dam Construction	80,000,000	
	Continue Mussel Monitoring	442,000	
Division: Great Lakes & Ohio River	District: Louisville		Olmsted Locks & Dam, IL. & KY

Continue Wildlife Pump Repairs	394,000
Complete Gate Storage Facilities	1,600,000
Misc. Lock Repairs	40,000
Planning, Engineering, and Design	2,189,000
Construction Management	4,135,000
Lock Operation during Construction	300,000
Total	89,100,000

FISCAL YEAR 2007: The requested amount will be applied as follows:

Continue Dam Construction	\$ 101,350,000
Continue Mussel Monitoring	450,000
Planning, Engineering, and Design	1,326,000
Construction Management	6,578,000
Lock Operation during Construction	296,000
Total	\$ 110,000,000

NON-FEDERAL COSTS: 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 \$1,450,000,000 is an increase of \$50,000,000 from the latest estimate (\$1,400,000,000) presented to Congress (FY 2006). The change includes the following items.

Item	Amount
Post Contract Award and Other Estimating Adjustments.	\$ 50,000,000
Total	\$ 50,000,000

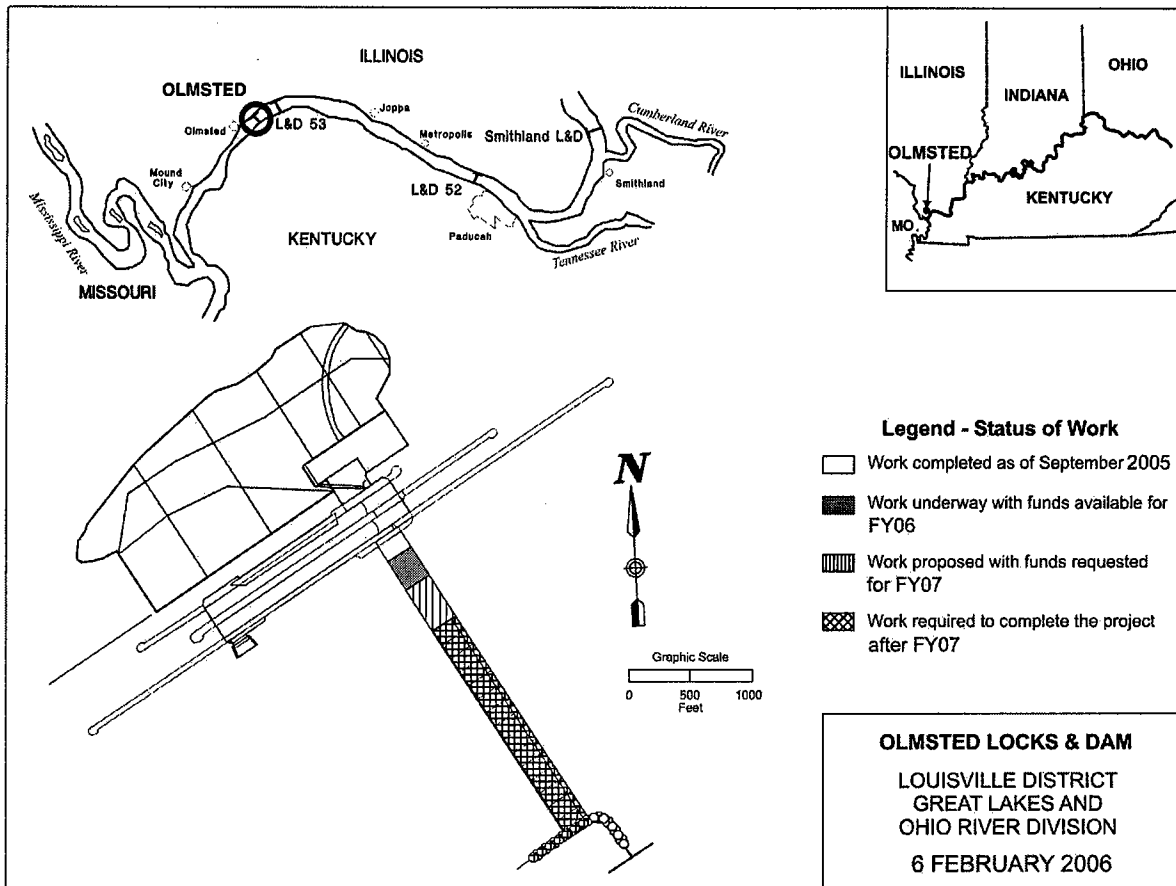
STATUS OF ENVIRONMENTAL IMPACT STATEMENT: A final Environmental Impact Statement (EIS) was filed with the Environmental Protection Agency on April 4, 1986. Due to project changes, a Draft Supplemental EIS was filed in November 1991. The Final Supplement to the EIS was filed on March 26, 1993, and the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

Division: Great Lakes & Ohio River

District: Louisville

Olmsted Locks & Dam, IL. & KY



APPROPRIATION TITLE: Construction, General - Locks and Dams (Navigation)

PROJECT: Robert C. Byrd Locks and Dam (formerly Gallipolis Locks and Dam), West Virginia and Ohio (Continuing)

LOCATION: The project is situated in the Middle Ohio Valley at Ohio River mile 279.2, approximately 14 miles downstream from the mouth of the Kanawha River in West Virginia and approximately 30 miles upstream from the City of Huntington, West Virginia. The new locks are in Mason County, West Virginia and the abutment of the dam is in Gallia County, Ohio.

DESCRIPTION: The project includes the rehabilitation of the non-navigable, high-lift, gated, existing dam and construction of a new 1200 by 110 foot main lock and a new 600 by 110 foot auxiliary lock in a canal extending across a slight bend in the river, bypassing the existing locks and dam on the left descending (West Virginia) bank. The canal, in effect, straightens the river bend and provides a relatively straight down-bound approach for several miles. All work is programmed.

AUTHORIZATION: River and Harbor Act of 1935, Supplemental Appropriations Act, 1985, and the Water Resources Development Act of 1986. The Water Resources Development Act of 1992, Section 118, changed the project name to the Robert C. Byrd Locks and Dam. The Water Resources Development Act of 2000, Section 548, added authorization to preserve the General Jenkins House at Lesage/Greenbottom Swamp.

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable because construction of the project is substantially complete.

TOTAL BENEFIT-COST RATIO: Not applicable because construction of the project is substantially complete.

INITIAL BENEFIT-COST RATIO: 11.3 to 1 at 8 3/8 percent (FY 1985).

BASIS OF BENEFIT-COST RATIO: General Design Memorandum, dated November, 1982, at October, 1982 price levels.

SUMMARIZED FINANCIAL DATA		STATUS (1 Jan 2006)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
New Construction Work		Entire Project	98	To Be Determined
Estimated Federal Cost		Lock Construction	100	Jan 1993
General Appropriations	155,200,000	Mitigation Sites	99	To Be Determined
Inland Waterways Trust Fund	155,200,000	Dam Rehabilitation	99	To Be Determined
		Jenkins House	20	To Be Determined
	\$ 310,400,000			

Division: Great Lakes & Ohio River

District: Huntington

Robert C. Byrd Locks and Dam, WV and OH

6 February 2006

SUMMARIZED FINANCIAL DATA (Continued)

Dam Rehabilitation		
Estimated Federal Cost		\$ 73,100,000
General Appropriations	36,550,000	
Inland Waterways Trust Fund	36,550,000	
Total Estimated Federal Cost		\$ 383,500,000
General Appropriations	191,750,000	
Inland Waterways Trust Fund	191,750,000	
Estimated Non-Federal Cost		0
Total Estimated Project Cost		\$ 383,500,000

	GENERAL APPNS.	INLAND WATERWAYS TRUST FUNDS	ACCUM. PCT. OF EST. FED. COST
Allocations to 30 September 2003	\$188,105,000 1/	\$188,105,000	
Allocations for FY 2004	442,000	442,000	
Allocations for FY 2005	899,000	899,000	
Conference Allowance for FY 2006	457,000	457,000	
Allocation for FY 2006	452,500 2/	452,500 3/	
Allocations through FY 2006	189,898,500	189,898,500	99
Allocation Requested for FY 2007	900,000	900,000	99
Programmed Balance to Complete after FY 2007	951,500	951,500	
Unprogrammed Balance to Complete after FY 2007	0	0	

1/ Allocations thru FY05 include \$9,526,000 paid by the Department of Treasury Judgment Fund for settled claim.

2/ Reflects \$4,500 rescinded in accordance with the Department of Defense, Emergency Supplemental Appropriations to Address Hurricanes in the Gulf of Mexico, and Pandemic Influenza Act, 2006, P.L. 109-148.

3/ Reflects \$4,500 rescinded in accordance with the Department of Defense, Emergency Supplemental Appropriations to Address Hurricanes in the Gulf of Mexico, and Pandemic Influenza Act, 2006, P.L. 109-148.

Division: Great Lakes & Ohio River

District: Huntington

Robert C. Byrd Locks and Dam, WV and OH

6 February 2006

PHYSICAL DATA

Bypass Canal:
 Length - 1.7 miles
 Bottom Width - 500 feet (min)

Locks:
 Number - 2
 Main Lock - 110 x 1,200 feet
 Auxiliary Lock - 110 x 600 feet

Lands and Damages:	
Total existing easement area	1798 acres
Existing locks and dam	82 acres
New locks and canal	546 acres
Mitigation	837 acres
Dam rehabilitation	28 acres

Dam:
 Major rehabilitation of the existing navigation dam to include replacing the dam roller gates and strengthening the foundation.

JUSTIFICATION: Completion of the new locks has enabled tows to transit the project area efficiently and has completed a series of 110 by 1200 foot locks from near Pittsburgh to Cairo, Illinois. Reduced delays and transportation costs are benefiting the economy of the Nation directly and indirectly. The project is strategically located between the highly industrialized upper Ohio River Basin area and its product markets and supply regions. Robert C. Byrd Locks and Dam captures a significant portion of the commodities transiting the Ohio River. The traffic levels (number of lockages) have decreased and volume of commodities have increased at Robert C. Byrd Locks and Dam, as forecast in the authorization document. Between the years of 1995 and 2004, traffic has ranged from 53.1M to 59.6M tons annually.

The new locks and the dam rehabilitation also remedy problems associated with the age, condition, and hazardous location of the existing facilities. The existing locks and dam are over 50 years old and have been increasingly difficult to operate and maintain. Lock outages have been a major problem and would have become very critical in the future. Accident reports and information from the navigation industry documented that the existing facilities were unsafe due to the location of the locks and velocities generated during above normal river conditions.

The average annual benefits, at 7 percent, are estimated as follows:

Annual Benefits	Amount
Commercial Navigation	\$ 18,320,000
Recreation	52,000
Total	\$ 18,372,000

Division: Great Lakes & Ohio River

District: Huntington

Robert C. Byrd Locks and Dam, WV and OH

6 February 2006

FISCAL YEAR 2006: The amount provided will be applied as follows:

Continue Jenkins Preservation	\$ 683,000
Planning, Engineering and Design	165,000
Construction Management	57,000
Total	\$905,000

FISCAL YEAR 2007: The requested amount will be applied as follows:

Continue Dam Rehabilitation	\$ 648,000
Continue Jenkins Preservation	762,000
Planning, Engineering and Design	346,000
Construction Management	44,000
Total	\$1,800,000

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 costs of construction will be derived from Inland Waterways Trust Fund. The West Virginia Division of Natural Resources will be responsible for operation and management of mitigation lands at an estimated average annual cost of \$55,000 for the Greenbottom area and \$345,000 for the on-site mitigation (fish hatchery). The West Virginia Division of Culture and History annual O&M cost for the General Jenkins House is estimated to be \$30,000.

STATUS OF LOCAL COOPERATION: The West Virginia Division of Natural Resources by lease agreement has assumed responsibility for operation and management of the off-site mitigation area. The General Jenkins House has been subleased to the West Virginia Division of Culture and History. The Corps is in the process of turning the completed onsite mitigation fish hatchery in fee over to the State of West Virginia Division of Natural Resources.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$383,500,000 is an increase of \$300,000 from the latest estimate (\$383,200,000) presented to Congress (FY 2006). This change includes the following item.

Item	Amount
Price Escalation on Construction Features	\$ 300,000
Total	\$ 300,000

Division: Great Lakes & Ohio River

District: Huntington

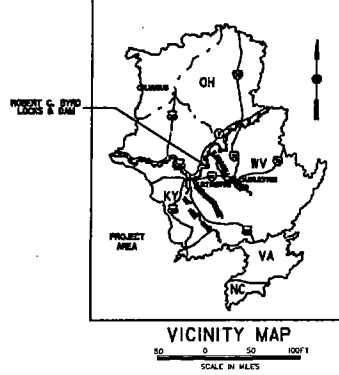
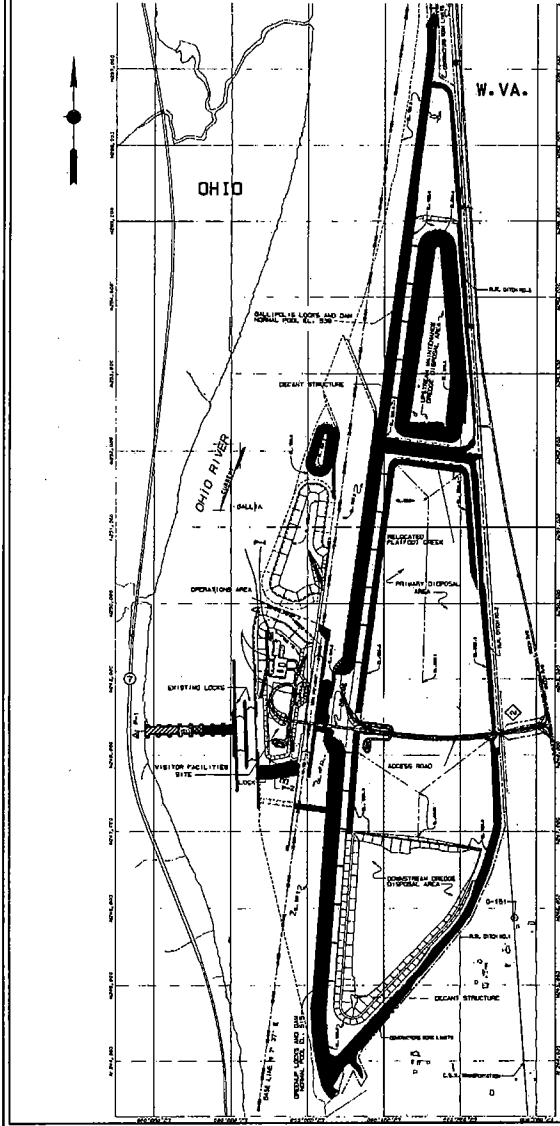
Robert C. Byrd Locks and Dam, WV and OH

6 February 2006

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Final Environmental Impact Statement (EIS) was filed with Environmental Protection Agency on January 8, 1981. Supplement I to the EIS was filed on October 30, 1991.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1984. Funds to initiate construction were appropriated in FY 1985. The Water Resources Development Act (WRDA) of 1992, Section 118, changed the project name to the Robert C. Byrd Locks and Dam.

The Water Resources Development Act of 2000, Section 548, includes authority to preserve the General Jenkins House, which is located at the Greenbottom Wildlife Management Area. The Corps is working with the West Virginia Division of Culture and History and interested local historical groups to develop a strategy to implement the provisions of WRDA 2000. The scheduled completion date is the same as the latest presented to Congress (FY 2006) "To Be Determined."



LANDS 100%

RELOCATIONS 100%

DAM REHABILITATION 98% 0% 1% 1%

LOCKS 94% 2% 2% 2%

- STATUS OF WORK**
- WORK COMPLETED
 - WORK UNDERWAY WITH FUNDS AVAILABLE FOR F.Y. 2006
 - WORK PROPOSED WITH FUNDS REQUESTED FOR F.Y. 2007
 - WORK REQUIRED TO COMPLETE THE PROJECT AFTER F.Y.2007

6 FEBRUARY 2006

OHIO RIVER
 ROBERT C. BYRD LOCKS AND DAM
 HUNTINGTON DISTRICT
 GREAT LAKES AND OHIO RIVER DIVISION

APPROPRIATION TITLE: Construction General - Locks & Dams (Navigation)

PROJECT: Winfield Locks and Dam, West Virginia (Continuing)

LOCATION: Winfield Locks and Dam is located in Putnam County, West Virginia, on the Kanawha River near Eleanor, approximately 31 miles above the confluence with the Ohio River. The pool is located entirely in West Virginia.

DESCRIPTION: The modernization plan includes the construction of an additional 110 by 800 foot lock on the right descending bank landward of the existing locks and a 110-foot wide non-navigable gate bay between the old lock and the new lock. The new lock will be skewed six degrees landward (upstream to downstream) from the existing locks. The plan includes the continued use of both existing 56 by 360 foot lock chambers as auxiliary locks. The existing dam also will remain in use. All work is programmed.

AUTHORIZATION: The Supplemental Appropriations Act, 1985 for engineering and design and land acquisition, and the Water Resources Development Act of 1986 for construction.

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable because construction of the project is substantially complete.

TOTAL BENEFIT-COST RATIO: Not applicable because construction of the project is substantially complete.

INITIAL BENEFIT-COST RATIO: 6.2 to 1 at 8 7/8 percent (FY 1987).

BASIS OF BENEFIT-COST RATIO: Design Memorandum No. 1, General Design Memorandum, dated April, 1988.

SUMMARIZED FINANCIAL DATA		STATUS (1 Jan 2006)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		Entire Project	99	To Be Determined
General Appropriations	118,150,000	Locks Operational	100	Nov 1997
Inland Waterways Trust Fund	118,150,000			
Estimated Non-Federal Cost				
	0			
Total Estimated Project Cost				
	\$236,300,000			

Division: Great Lakes & Ohio River

District: Huntington

Winfield Locks and Dam, WV

6 February 2006

54

SUMMARIZED FINANCIAL DATA (Continued)

	GENERAL APPNS.	INLAND WATERWAYS TRUST FUND	ACCUM. PCT. OF EST. FED. COST
Allocations to 30 September 2003	\$113,888,828	\$113,888,828	
Allocations for FY 2004	230,000	230,000	
Allocations for FY 2005	267,000	267,000	
Conference Allowance for FY 2006	1,200,000	1,200,000	
Allocation for FY 2006	1,188,000 1/	1,188,000 2/	
Allocations through FY 2006	115,573,828	115,573,828	98
Allocation Requested for FY 2007	2,150,000	2,150,000	99
Programmed Balance to Complete after FY 2007	426,172	426,172	
Unprogrammed Balance to Complete after FY 2007	0	0	

1/ Reflects \$12,000 rescinded in accordance with the Department of Defense, Emergency Supplemental Appropriations to Address Hurricanes in the Gulf of Mexico, and Pandemic Influenza Act, 2006, P.L. 109-148.

2/ Reflects \$12,000 rescinded in accordance with the Department of Defense, Emergency Supplemental Appropriations to Address Hurricanes in the Gulf of Mexico, and Pandemic Influenza Act, 2006, P.L. 109-148.

PHYSICAL DATA

Lock:

Number - 1
Chamber - 110 by 800 ft.
Lift - 28 ft.

Lands and Damages:

Acres - 1,243 easement
- 41 for existing Locks and Dam
- 316 for new Lock

New Lock Site:

Mobile home park (37 units), two active industries, and one inactive industry.

JUSTIFICATION: Winfield Locks and Dam links the Kanawha Valley, an important chemical and coal producing area, to its product markets and supply areas. Up-bound traffic through Winfield is composed of important supplies of chemicals, feedstocks, aggregates, and petroleum fuels. Down-bound traffic is composed largely of coal produced in the upper Kanawha River Basin and destined for electric generating facilities and coking plants throughout the middle and upper Ohio River Basin. Since 1995, Winfield locks has averaged 20.2 million tons of traffic a year. During 2004, 17.8 million tons of traffic locked through Winfield. Coal accounts for approximately 75 percent of the total tonnage.

The Winfield project presented a significant impediment to the efficient flow of waterborne commerce due to its outdated features. Before the new chamber came on-line in November 1997, only 30 percent of the barges processed at Winfield were the size that the project originally was designed to serve and only two percent of the tows were small enough to be locked in a single operation. The average delay per tow was 4.0 hours in 1996 with an average of over 4 lockages per tow. The total processing time (lockage plus delay time) was 6.7 hours, the highest in the Ohio River system. Navigation safety has not been a major problem at Winfield Locks, but the potential for navigation accidents was present. The problem stemmed from the orientation of the locks and the design of the lock walls. The 56' X 360' locks are located on the inside of a bend in the river that requires tows to make several maneuvers to enter and exit the locks. This is especially difficult during high river flows. With 800 foot long tows becoming more common, the short upper guard wall also presents a problem. The upper guard wall is only 450 feet long, which means that about half of a tow extends beyond the end of the wall as lockage progresses. This presents a danger that the tow might break up and be swept down on the dam during high-flow conditions. As the number of large tows increases at Winfield, the probability of accidents occurring in such instances also increases.

The average annual benefits, at 7 percent, are \$43,054,500, all for commercial navigation.

FISCAL YEAR 2006: The amount provided will be applied as follows:

Continue Systems Mitigation	2,090,000	
Continue Planning, Engineering and Design	118,000	
Continue Construction Management	168,000	
	Total	\$ 2,376,000

FISCAL YEAR 2007: The requested amount will be applied as follows:

Continue Systems Mitigation	3,732,000	
Continue Planning, Engineering and Design	318,000	
Continue Construction Management	250,000	
	Total	\$ 4,300,000

NON-FEDERAL COSTS: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, 50 percent of the total costs of construction will be derived from the Inland Waterways Trust Fund.

Division: Great Lakes & Ohio River

District: Huntington

Winfield Locks and Dam, WV

STATUS OF LOCAL COOPERATION: Upon completion of the project, a Memorandum of Agreement will be prepared between West Virginia Division of Natural Resources (WVDNR) and the Corps of Engineers for WVDNR to assume responsibility for operation and management of the mitigation area. Annual costs are estimated to be \$30,000.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$236,300,000 is an increase of \$300,000 from the latest estimate (\$236,000,000) presented to Congress (FY 2006). This change includes the following item.

Item	Amount
Price Escalation on Construction Features	\$300,000
Total	\$300,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement (EIS) was filed with the Environmental Protection Agency on September 25, 1987. The Ohio River Division Commander signed a Supplemental Environmental Impact Statement (SEIS) on April 28, 1993. The SEIS was prepared because of the need to realign the new lock as a result of hydraulic model testing.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1985 and funds to initiate construction were appropriated in FY 1987.

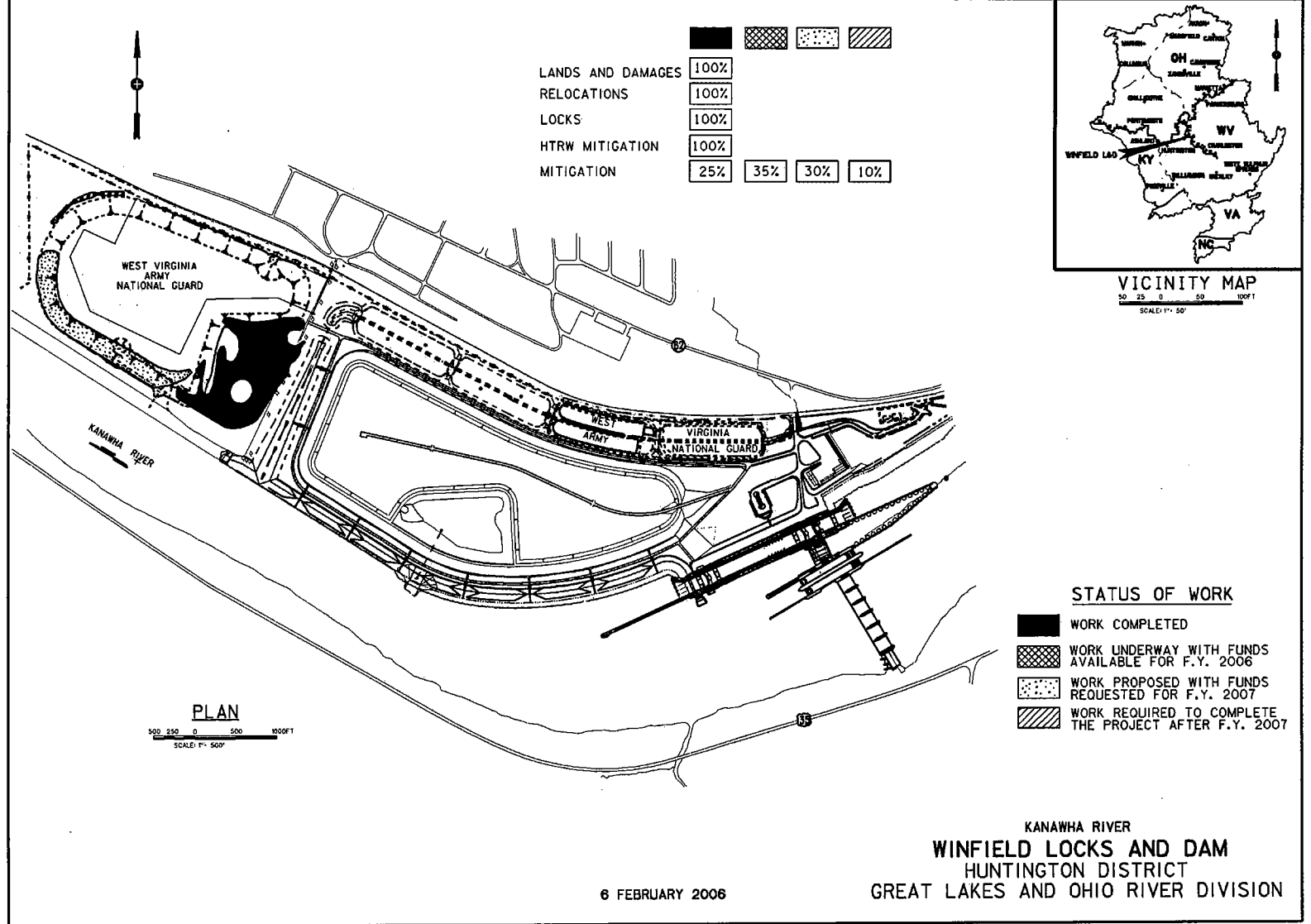
Hazardous and toxic substances found on the site were removed by former landowner, ACF Industries. Temporary buildings constructed for storage of hazardous materials will be transferred to the National Guard Bureau for controlled storage of equipment. A License Agreement between the Corps and National Guard has been signed allowing the Guard to use the facility until the transfer is finalized. The West Virginia National Guard is constructing a complex that would include a combined support maintenance shop, organizational maintenance shop, and armory facility on thirty acres of the downstream disposal area. A License Agreement has been signed for this as well. The thirty acres will be included in the final transfer document. Because this construction would affect the mitigation agreement between the Corps and resource agencies, a memorandum of agreement was executed between the National Guard, the resource agencies, and the Corps for off-site mitigation to replace mitigation acreage lost due to transfer to the Guard.

Implementation of systems mitigation features remain for the project. A team comprised of the US Fish and Wildlife Service, West Virginia Division of Natural Resources, and Corps of Engineers is working to determine what type of systems mitigation is required.

The scheduled completion date is the same as the latest presented to Congress (FY 2006) "To Be Determined."

CORPS OF ENGINEERS

U.S. ARMY



COMMERCIAL NAVIGATION

CONSTRUCTION

MISSISSIPPI RIVER DIVISION

APPROPRIATION TITLE: Construction, General - Locks and Dams (Navigation)

PROJECT: J. Bennett Johnston Waterway - Mississippi River to Shreveport, Louisiana (Continuing)

LOCATION: The project is located in central and northwest Louisiana and provides a navigation route from the Mississippi River at its juncture with Old River via Old and Red Rivers to Shreveport, Louisiana. The effected parishes and counties for this project include (Louisiana) Caddo, Bossier, Webster, De Soto, Red River, Bienville, Lincoln, Winn, Natchitoches, La Salle, Grant, Rapides, Avoyelles, Concordia; and (Arkansas) Hempstead, Miller, Nevada, Lafayette, and Columbia.

DESCRIPTION: The project provides for a 9- by 200-foot navigation channel extending about 236 miles from the Mississippi River through Old River and Red River to the vicinity of Shreveport, Louisiana. Five locks with dimensions of 84 by 705 by 14 feet and adjacent dams provide a lift of 141 feet. The project also provides for realigning the channel by means of dredging, cutoffs, and training works and for stabilizing its banks by means of revetments, dikes, and other methods. Recreation facilities and fish and wildlife development are also an integral part of the project. The major unprogrammed work includes recreation sites, and continued acquisition of mitigation lands. This project is part of the J. Bennett Johnston Waterway, Louisiana, Texas, Arkansas, and Oklahoma, which also includes the Shreveport, to Daingerfield, Texas (navigation), Shreveport, Louisiana, to Index, Arkansas (bank stabilization), and Index, Arkansas, to Denison Dam (bank stabilization) reaches.

AUTHORIZATION: River and Harbor Act of 1968, Water Resources Development Act of 1976, Supplemental Appropriations Act of 1984, Water Resources Development Acts of 1986, 1988, 1990, 1992, 1996, and 2000 and Energy and Water Development Appropriations Act of 1994.

REMAINING BENEFIT - REMAINING COST RATIO: 3.6 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 1.5 to 1 at 7 percent.

INITIAL BENEFIT-COST RATIO: 1.3 to 1 at 3-1/4 percent (FY 1973).

BASIS OF BENEFIT-COST RATIO: Benefits are from the General Reevaluation Report and Final Supplement No. 2 to the Environmental Impact Statement, at 1982 price levels, approved 4 January 1984. Costs for current analysis are based on October 2005 costs deflated to October 1982 price levels.

SUMMARIZED FINANCIAL DATA

Estimated Federal Cost (COE)		\$1,923,975,000
Programmed Construction	\$ 1,906,715,000	
Unprogrammed Construction	17,260,000	
Estimated Apprn Requirements (U.S. Coast Guard)		678,000
Programmed Construction	678,000	
Unprogrammed Construction	0	
Estimated Non-Federal Cost		103,632,000
Programmed Construction	78,074,000	
Cash Contributions	\$31,260,000	
Other Costs	46,814,000	
Unprogrammed Construction	25,558,000	
Cash Contributions	146,000	
Other Costs	25,412,000	

STATUS
(1 Jan 2006)
Entire Project

PCT
CMPL
93

PHYSICAL
COMPLETION
SCHEDULE
To Be Determined

Open to 9-Foot Navigation
Lindy Boggs Lock & Dam
John H. Overton Lock and Dam
Lock and Dam No. 3
Russell B. Long Lock and Dam
Joe D. Waggoner, Jr., Lock and Dam

Dec 87
Dec 87
Dec 87
Dec 91 ¹
Dec 94
Dec 94

PHYSICAL DATA

Lands and Damages: 26,000 acres, authorized mitigation
Channels and Canals: Channel 9 feet deep,
200 feet wide, and 236 miles long from
Old River to Shreveport, Louisiana. Total length of
bank protection - 273 miles

Locks: Number - 5; Size - 84 by 705 feet
Dams: Number - 5; Type - Tainter Gated
Relocations: Roads (Modify one bridge)
Railroads (Replace one and modify one bridge)

¹ Initial interim pool impounded.

SUMMARIZED FINANCIAL DATA (Continued)		ACCUM PCT OF EST FED COST
Total Estimated Programmed Construction Cost	\$ 1,985,467,000	
Total Estimated Unprogrammed Construction Cost	42,818,000	
Total Estimated Project Cost	2,028,285,000	1
Allocations to 30 September 2003	\$ 1,770,080,000	
Allocations for FY 2004	10,880,000	
Allocations for FY 2005	8,542,000	
Conference Allowance for FY 2006	13,000,000	
Allocations for FY 2006	12,870,000	2
Allocations to 30 September 2006	1,802,372,000	1
Allocation Requested for FY 2007	1,500,000	94
Programmed Balance to Complete After FY 2007	\$ 102,843,000	
Unprogrammed Balance to Complete After FY 2007	17,260,000	

¹ Includes \$26,654,000 for John H. Overton Lock and Dam and \$21,653,000 for Red River Emergency Bank Protection for construction work.

² Reflects \$130,000 rescission in accordance with the Department of Defense, Emergency Supplemental Appropriations to Address Hurricanes in the Gulf of Mexico, and Pandemic Influenza Act, 2006.

JUSTIFICATION: The Red River was a very erratic river, subject to wide fluctuations in stage and meandering because of the erodible soils. A system of dependable pools was constructed to enable navigation and work continues on channel alignment. The pools are provided by five locks and dams and the proper alignment is provided by bank and channel stabilization works. These works improve water quality, fish and wildlife habitat, and preserve lands. On 31 December 1994, a 9-foot-deep by 200-foot-wide navigation channel was opened from the Mississippi River to Shreveport. The channel provides dependable 9-foot navigation depths year-round.

Navigation from the Mississippi River to Shreveport provides an artery for low-cost transportation which stimulates economic growth of the region. Estimated savings are based on an average annual movement, as forecast, of 7,845,000 tons. Waterborne commerce tonnage on the waterway in 1998 was 3,749,000 tons including all commodities that transited any portion of the system and approximately 4,200,000 tons were moved on the waterway in 2003. Commodities carried over the waterway include iron and steel products and pipe, industrial chemicals, paper and allied paper products, petroleum and petroleum products, other metals and ores, sulphur, agricultural chemicals, and grain. The public will realize an average annual savings of \$68,831,000 which will result from reduced transportation costs. Several local entities are actively involved in port development on the waterway. The City of Alexandria has constructed port facilities in Pool 2 for use by industry. The Natchitoches Parish Port in Pool 3 was opened in 1996, and a chip loading facility, general cargo dock and transit shed has been constructed at the port. The Caddo-Bossier Port in Pool 5 was opened in April 1997 and shipped 580,000 tons in 2004. Commodity movement through the port is steadily increasing. The Red River Parish Port was opened in 2002 in Pool 4. These ports will be able to accommodate tows or barges of various sizes. The usable lock dimensions were designed for a configuration of six barges with individual dimensions of 35 by 195 feet and a towboat. Larger grain and petroleum barges can also be expected to call at the ports. The project is credited with benefits derived from transportation savings from use of the waterway, flood control, damages prevented by bank stabilization, security against levee crevasses, fish and wildlife, recreation, area redevelopment, reduced maintenance on existing revetments, reduced sedimentation, irrigation, reduced costs of municipal and industrial water supply, and reduced pumping costs.

The average annual benefits are as follows:

Annual Benefits	Amount
Navigation	\$ 68,831,000
Flood Control	2,037,000
Bank Stabilization	16,602,000
Fish and Wildlife	460,000
Recreation	4,435,000
Area Redevelopment	14,808,000
Other:	
Irrigation and reduced costs of municipal and industrial water supply	53,000
Total	\$ 107,226,000

FISCAL YEAR 2006: Current year funds are being used as follows:

Gahagan Reinforcement	\$ 5,750,000
LCB Barrier Upgrade	3,500,000
Shreveport Visitor Center	53,000
Shell Pt/Nantachie Structure	60,000
Westdale/Williams Realignment	131,000
Lands and Damages	300,000
Planning, Engineering and Design	2,326,000
Construction Management	750,000
Total	\$ 12,870,000

FISCAL YEAR 2007: The requested amount will be applied as follows:

Pools 1-5	
Mitigation	\$ 1,500,000
TOTAL	\$ 1,500,000

NON-FEDERAL COST: With the exception of the Louisiana-Arkansas Railroad Bridge Relocation and the mitigation element, local interests are required to provide all lands, easements, and rights-of-way, including a proportionate share of the cost of the bridge relocations over existing channels in accordance with the principles of Section 6 of the Bridge Alteration Act (Truman-Hobbs) of 21 June 1940, as amended by the Act of 16 July 1952, 25 percent of the cost of necessary retaining dikes for dredged materials and 50 percent of the total cost of recreation facilities. 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	\$ 33,753,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project	11,731,000	\$ 211,700
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	55,616,000	1,448,000
Pay 6 percent of the first costs allocated to fish and wildlife and pay 6 percent of the costs of operation, maintenance, repair, rehabilitation, and replacement of fish and wildlife facilities	527,000 ¹	332,800 ²
Pay 25 percent of the first cost allocated to retention dikes required for construction and maintenance dredging	2,005,000	31,200
Replacement costs		302,900
Total Non-Federal Costs	\$ 103,632,000	\$ 2,326,600

¹ Since the local sponsor will assume all operation and maintenance costs and this cost will exceed the 6 percent local share, there will be no local requirement toward implementation costs for Loggy Bayou increment. Implementation costs shown are for the Bayou Bodcau increment.

² 100 percent of annual management costs for Loggy Bayou and Bayou Bodcau increments.

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction. Non-Federal cost associated with the scheduled portion of the project are broken down as follows:

Lands and Damages	\$ 18,950,000
Utility Relocations	6,864,000
Recreation (Other)	21,000,000
Cash Contribution	31,260,000
Recreation Facilities	(27,672,000)
Bridge Relocations	(1,006,000)
Retaining Dikes	(1,973,000)
Mitigation	(609,000)
Total	\$78,074,000

STATUS OF LOCAL COOPERATION: Formal assurances of local cooperation were furnished by the Red River Waterway Commission on 26 February 1969 and accepted on behalf of the United States on 15 April 1969. That agency was formed expressly to provide the local cooperation required for the project and has levied a 2-mill assessment to fulfill its obligations. Amended assurances covering the provisions of the Uniform Relocations Assistance and Real Property Acquisition Policies Act of 1970, Public Law 91-646, and the specific written agreement requirements of Section 221 of the Flood Control Act of 1970, Public Law 91-611, were executed by the Red River Waterway Commission on 23 May 1973 and were accepted on behalf of the United States on 14 November 1973. A cost sharing agreement covering nine recreation sites in Pools 1 and 2 was approved by the Deputy Chief of Engineers on 23 July 1985. A Memorandum of Understanding between the Corps and the local sponsor for development of these nine sites was executed in January 1986. A supplement to this cost-sharing agreement was executed in the last quarter of FY 1994 to cover the construction of three boat ramps and ancillary facilities in Pools 4 and 5 in FY 1995. In the Conference Report that accompanied the Energy and Water Development Appropriations Act of 1993, Congress directed the Corps of Engineers to prepare a supplement to the recreation master plan to serve as the project document to support the contract for recreation development in Pools 3 to 5. The Project Cooperation Agreement for recreation developments in Pools 3 to 5 was executed in April 2000.

The Red River Waterway Commission agreed by letter dated 6 September 1983 to fulfill all responsibilities of the local sponsor relative to the purchase of wildlife mitigation lands. The Louisiana Department of Wildlife and Fisheries, by letter dated 22 July 1983, agreed to assume operation and maintenance responsibilities for acquired wildlife mitigation lands. Updated letters of agreement covering the mitigation plan as presently conceived (i.e., acquisition of up to 5,000 acres in the vicinity of Loggy Bayou) were furnished by the Red River Waterway Commission and the Louisiana Department of Wildlife and Fisheries on 13 August 1990 and 17 August 1990, respectively. The Local Cooperation Agreement between the Federal Government and the State of Louisiana for the acquisition of up to 5,000 acres of mitigation lands in the vicinity of Stumpy Lake/Swan Lake/Loggy Bayou Wildlife Management Area was executed by the Red River Waterway Commission in May 1993 and by the Assistant Secretary of the Army in June 1993.

The Project Cooperation Agreement covering the acquisition of mitigation lands in the vicinity of the Bayou Bodcau Wildlife Management Area was executed in June 1996.

The Red River Waterway Commission furnished a letter of agreement dated 10 October 1997 supporting additional mitigation lands in Red River and Caddo Parishes that are to be considered adjacent to the Loggy Bayou Wildlife Management Area. These new areas were directed in the Water Resources Development Act of 1996. A report detailing a plan of action to acquire these lands was processed as directed by the legislation. Amendment No. 1 to the June 1993 Loggy Bayou Area Local Cooperation Agreement covering the initial acquisition effort in Caddo Parish was executed by the Red River Waterway Commission and the Assistant Secretary of the Army in October 1999. The Water Resource Development Act of 2000 authorized the acquisition of mitigation lands in any of the parishes that comprise the Red River Waterway District, consisting of Avoyelles, Bossier, Caddo, Grant, Natchitoches, Rapides, and Red River Parishes.

The Red River Waterway Commission is providing its share of the project first costs by furnishing the necessary lands, easements, and rights-of-way, performing utility relocations as needed, and providing cash contributions for recreation facilities, bridge relocations, and retaining dikes. They will contribute their share of retention dike construction for maintenance dredging by cash contribution and they will provide the lands, easements, and rights-of-way for these dikes.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate (Corps of Engineers) of \$1,923,975,000 is an increase of \$13,047,000 from the latest estimate (\$1,910,928,000) presented to Congress (FY 2006). This change includes the following item.

Item	Amount
Price Escalation on Construction Features	\$ 13,047,000
Total	\$ 13,047,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final statement was filed with the Council on Environmental Quality on 11 May 1973. The Environmental Impact Statement is included in the project "Red River Waterway." Supplement No. 1 to the Environmental Impact Statement was prepared for the Mississippi River to Shreveport reach of the J. Bennett Johnston Waterway due to a change in project alignment from the authorizing document, and to include updated environmental information due to a reanalysis and to include results of the ground-water studies. The final Supplement No. 1 was filed with the Council on Environmental Quality on 18 February 1977, and published in the Federal Register on 25 February 1977. A third Environmental Impact Statement (Supplement No. 2) was submitted to the Environmental Protection Agency in final form on 10 November 1983, and the record of decision was signed by the Division Engineer on 4 January 1984.

An Environmental Assessment was prepared for Pool No. 2 to present the results of investigations of the impacts of the 58- and 64-foot elevations. The Environmental Assessment resulted in a Finding of No Significant Impact which allowed a design change from 58- to 64-foot pool elevations. Following review by the public, the Finding of No Significant Impact was signed on 21 April 1982.

An Environmental Assessment of the Loggy Bayou Area mitigation increment has been performed. This area was not included in the original mitigation report. The Environmental Assessment was required to satisfy the National Environmental Policy Act. The Environmental Assessment resulted in a Finding of No Significant Impact, which was signed 11 January 1993. Environmental Assessments are required to present the impacts associated with the construction of riverside levee protection berms in Pools 3 and 5. The berms are necessary to ensure the integrity of the existing flood control levee system. The Environmental Assessment for the berms in Pool 3 resulted in a Finding of No Significant Impact which was signed on 16 July 1992. The Environmental Assessment for the berms in Pool 5 also resulted in a Finding of No Significant Impact which was signed on 24 May 1993.

Mississippi Valley Division

Vicksburg District
6 February 2006

J. Bennett Johnston Waterway-
Mississippi River to Shreveport, Louisiana

Environmental Assessments were required for the Bayou Bodcau mitigation increment and the Nantachie Lake drawdown structure to satisfy National Environmental Policy Act requirements. The Bayou Bodcau mitigation Environmental Assessment resulted in a Finding of No Significant Impact that was signed on 28 April 1995, and the Nantachie Lake drawdown structure Environmental Assessment was completed in FY 1996, also resulting in a Finding of No Significant Impact. An Environmental Assessment for the mitigation lands to be acquired in Caddo and Red River Parishes will be performed. An assessment of the initial tract in Caddo Parish has been completed, and resulted in a Finding of No Significant Impact that was signed on 23 September 1999.

A Final Environmental Assessment has been prepared covering instream disposal of maintenance dredge material in Pools 3, 4, and 5 in lieu of disposal in contained upland areas. A Finding of No Significant Impact was signed on 19 March 1996.

A Final Environmental Assessment has been prepared covering maintenance dredging of the oxbow lakes designated for preservation in project documentation. The dredging consists of maintaining a 5-foot-deep by 20-foot-wide connection from the river into the oxbow lakes in order to achieve all project benefits. The dredged material will be disposed of instream. A Finding of No Significant Impact was signed 18 November 1997.

An Environmental Assessment and Finding of No Significant Impact are included in Supplement No. 2 to the Recreation Master Plan which presents the revised plan for recreation development in Pools 3, 4, and 5. Supplement No. 2 was approved by the Mississippi River Commission on 1 May 1998. The Finding of No Significant Impact was signed on 6 October 1997. An Environmental Assessment was performed in Fiscal Year 2000 for the Hampton's Lake Recreation Area that was added to the Pools 3 to 5 Master Plan by August 1999, Supplement No. 3. A Finding of No Significant Impact was signed on 24 May 2000.

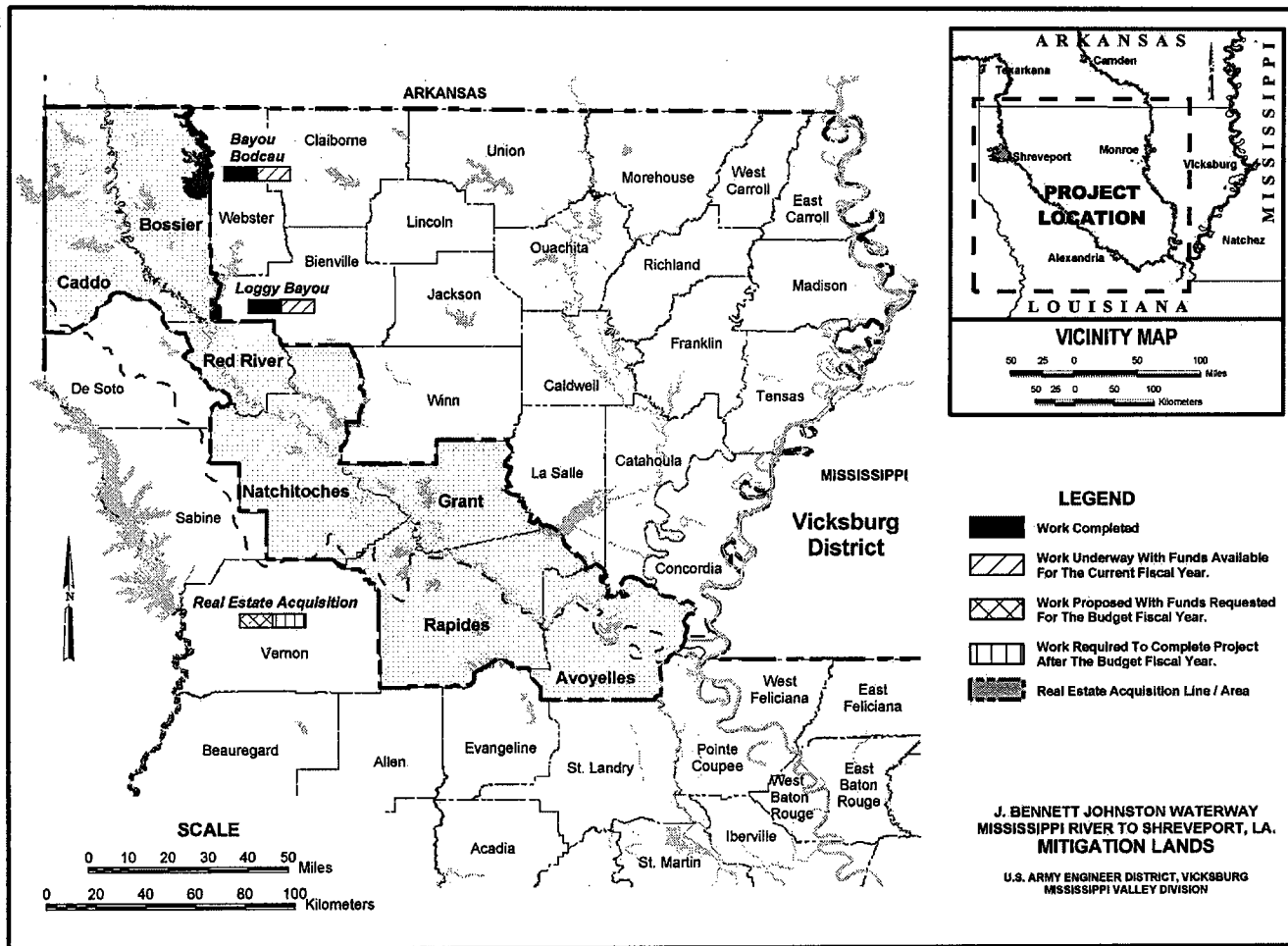
OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in Fiscal Year 1971 and allotted in Fiscal Year 1972. Funds to initiate construction were appropriated in Fiscal Year 1973.

The Energy and Water Development Appropriations Act of 1996 authorized a Regional Visitors Center in the vicinity of Shreveport. The Energy and Water Development Appropriations Act of 1997 provided \$3,000,000 and directions to initiate design and construction of the Regional Visitors Center in Fiscal Year 1997. The 1997 Appropriations Act also provided funds to initiate design of the previously authorized Project Visitors Center at Grand Ecore. The Fiscal Year 2001 Appropriations Act (P.L. 106-377) directed the use of available Construction, General funds, in addition to the funds provided by the Fiscal Year 1997 Appropriations Act, to complete design and construction of the Regional Visitor Center at an estimated cost of \$6,000,000. Construction of the Project Visitors Center at Grand Ecore was completed in Fiscal Year 2003 and the Regional Visitors Center at Shreveport was completed in the 1st quarter of Fiscal Year 2006.

The Draft Master Plan Supplement No. 3 covering adjustments to cost-shared recreation facilities in Pools 3, 4, and 5 was approved by the District Commander in September 1999. The Project Cooperation Agreement covering the same recreation facilities presented in Supplement Nos. 2 and 3 was executed in April 2000. Recreation Master Plan Supplement No. 4 covering minor transfers of facilities between approved sites, with no net change in quantity of facilities, was approved by the District Commander in April 2003.

The Water Resources Development Act of 1996 increased the total cost of the Loggy Bayou mitigation increment to \$10,500,000. It further provided that lands that are purchased adjacent to the Loggy Bayou Wildlife Management Area may be located in Caddo Parish or Red River Parish. The Water Resources Development Act of 1996 also modified the waterway project to require the Secretary to dredge or perform other related work as required to reestablish and maintain access to, and the environmental value of, the bendway channels designated for preservation in previous project documentation. Further, this work shall be carried out in accordance with the local cooperation requirements for other navigation features of the project. These project modifications are subject to completion of reports showing the work is technically sound and environmentally and economically acceptable, as applicable. The favorable bendway channel (oxbow lakes) dredging report has been returned by OMB for the development of supplemental environmental data and resubmission, and was resubmitted in late Fiscal Year 2001.

The Water Resources Development Act of 1986, as modified by the Water Resources Development Acts of 1988, 1990 and 2000, and the Fiscal Year 1990 and Fiscal Year 1994 Energy and Water Development Appropriations Acts, authorized the wildlife mitigation project for the waterway above mile 104 to Shreveport, Louisiana, at a total cost of \$9,420,000. The Water Resources Development Act of 1990 modifies the mitigation project by authorizing the Secretary of the Army to acquire an additional 12,000 acres adjacent to or close to the Bayou Bodcau Wildlife Management Area. The real estate design memorandums, which present the real estate requirements for the Loggy Bayou area and Bayou Bodcau area mitigation lands, have been approved. A supplemental report, which was submitted prior to passage of the Fiscal Year 1990 Energy and Water Development Appropriations Act and the Water Resources Development Act of 1990, recommends the acquisition of only 300 acres in the Stumpy Lake area and no lands in the vicinity of the Bayou Bodcau Wildlife Management Area. In the Energy and Water Development Appropriations Act of 1994, the Corps was directed to reimburse the project local sponsor annually for the Federal share of management costs for the Bayou Bodcau mitigation area. The Water Resources Development Act of 2000 modifies the mitigation project by authorizing the purchase of mitigation land from willing sellers in any of the parishes that comprise the Red River Waterway District, consisting of Avoyelles, Bossier, Caddo, Grant, Natchitoches, Rapides, and Red River Parishes.



APPROPRIATION TITLE: Construction, General – 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 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: 7.2 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 7.6 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 2006)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	\$ 267,600,000		Entire Project	80	To Be Determined
Estimated Non-Federal Cost	0				
Cash Contributions	0				
Other Cost	0				
			PHYSICAL DATA		
Total Estimated Project Cost	\$267,600,000		Channel 195 miles		
			Ohio River to mouth of Missouri River		
			9 x 300 feet		
Allocations to 30 September 2003	\$204,961,000				
Allocation for FY 2004	1,313,000				
Allocation for FY 2005	1,497,000				
Conference Allowance for FY 2006	4,000,000				
Allocation for FY 2006	3,960,000	1/			
Allocations to 30 September 2006	211,731,000		79		
Allocation Requested for FY 2007	7,560,000		82		
Programmed Balance to Complete After FY 2007	\$ 48,309,000				
Unprogrammed Balance to Complete After FY 2007	0				

1/ Reflects \$40,000 rescission in accordance with the Department of Defense, Emergency Supplemental Appropriations to Address Hurricanes in the Gulf of Mexico, and Pandemic Influenza Act, 2006.

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 108,529,000 tons in 2004 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.

FISCAL YEAR 2006: Current year funds are being used as follows:

Red Rock Dike and Revetment, Phase 5	\$1,100,000
Ft. Chartres Dike and Revetment, Phase 4	1,280,000
Dike and Revetment Mile 195-0	250,000
Thompson Bend Riparian Corridor	75,000
Lands and Damages	240,000
Planning, Engineering, and Design	869,000
Construction Management	146,000
Total	\$3,960,000

FISCAL YEAR 2007: The requested amount will be applied as follows:

Mosenthein Reach/Ivory Landing, Phase 2	\$5,300,000
Kaskaskia Bend, Phase 5	860,000
Thompson Bend Riparian Corridor	75,000
Planning, Engineering, and Design	984,000
Construction Management	341,000
Total	\$7,560,000

NON-FEDERAL COST: None.

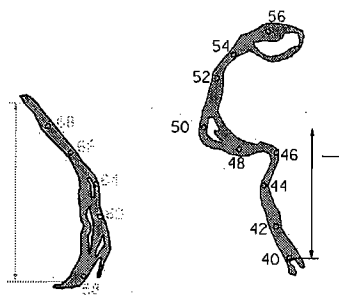
STATUS OF LOCAL COOPERATION: Not applicable.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$267,600,000 is an increase of \$1,600,000 from the latest estimate of \$266,000,000 presented to Congress (FY 2006). This change includes the following item:

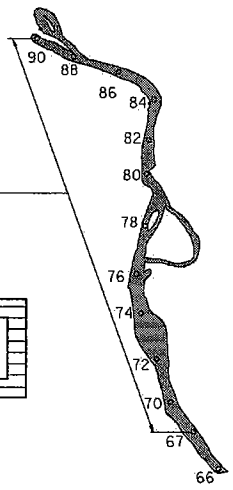
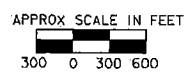
Item	Amount
Price Escalation on Construction Features	\$1,600,000
Total	\$1,600,000

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.

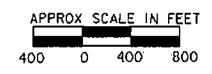
OTHER INFORMATION: Planning was initiated prior to 1910, and construction was initiated in 1910. This project requires no mitigation.




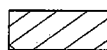

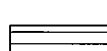
DEVIL'S ISLAND PHASE 4
MILE 67 to 40

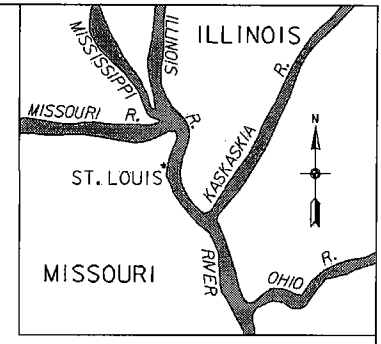


GRAND TOWER REACH PHASE 4
MILE 90 to 67

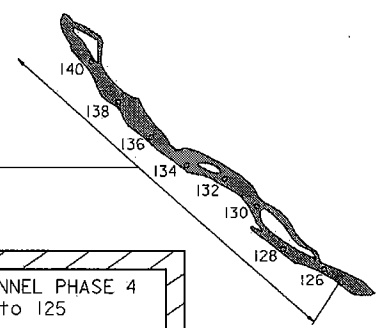


LEGEND

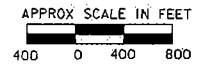
-  WORK COMPLETED.
-  WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR.
-  WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR.
-  WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR.



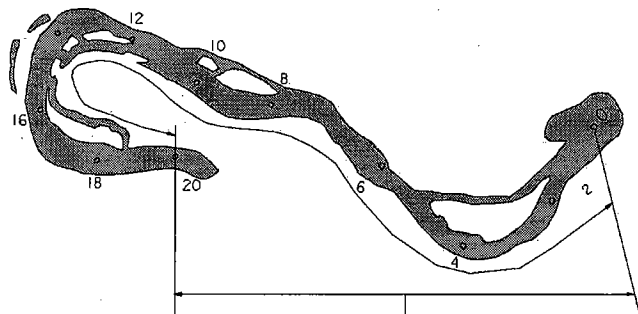
VICINITY MAP



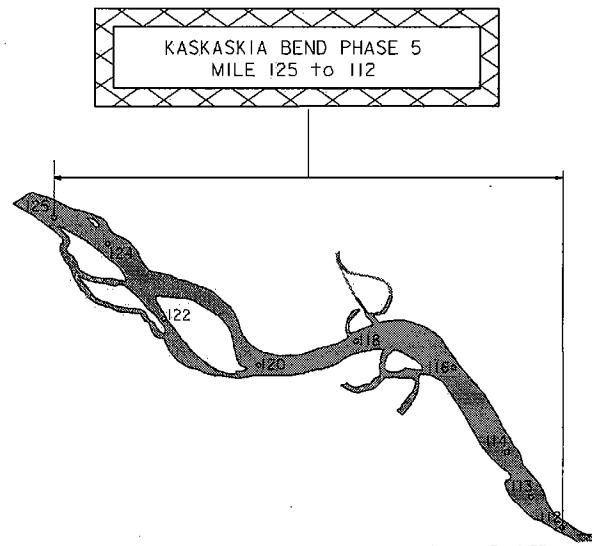
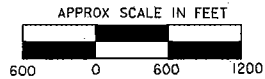
FT. CHARTRES CHANNEL PHASE 4
MILE 140 to 126



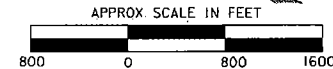
**MISSISSIPPI RIVER BETWEEN THE
OHIO AND MISSOURI RIVERS
(REGULATING WORKS),
MISSOURI & ILLINOIS**
U. S. ARMY ENGINEER DISTRICT, ST. LOUIS
MISSISSIPPI VALLEY DIVISION







ELIZA POINT/ GREENFIELD PHASE 2
MILE 20 to 0



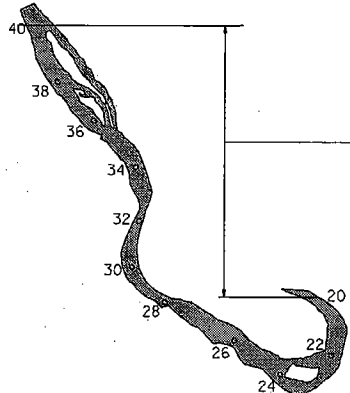
KASKASKIA BEND PHASE 5
MILE 125 to 112



LEGEND

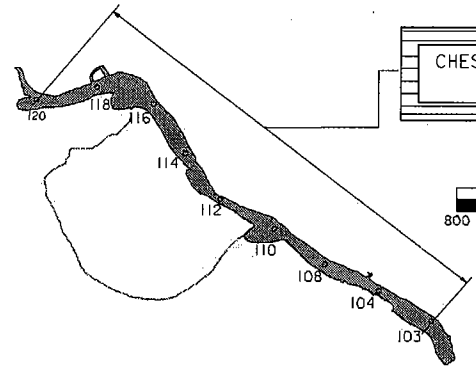
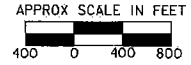
-  WORK COMPLETED.
-  WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR.
-  WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR.
-  WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR.

MISSISSIPPI RIVER BETWEEN THE OHIO AND MISSOURI RIVERS (REGULATING WORKS), MISSOURI & ILLINOIS
U. S. ARMY ENGINEER DISTRICT, ST. LOUIS
MISSISSIPPI VALLEY DIVISION

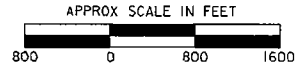


DOG TOOTH BEND
PHASE 3 MILE 40 to 20

THOMPSON BEND RIPARIAN CORRIDOR
MILE 30 to 20



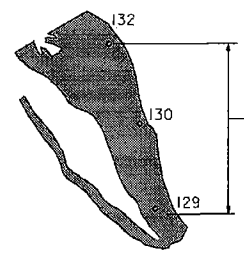
CHESTER REACH - PHASE 3
MILE 112 to 103



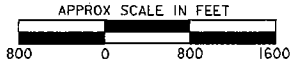
DIKE MILE 195 to 0
FOUR REACHES
195-172, 172-109
109-47, 47-0

MODIFIED REACHES
PHASE 2 MILE 195 to 0

REVETMENT MILE 195 TO 0
SIX REACHES
195-172, 172-127
127-109, 109-47
47-15, 15-0



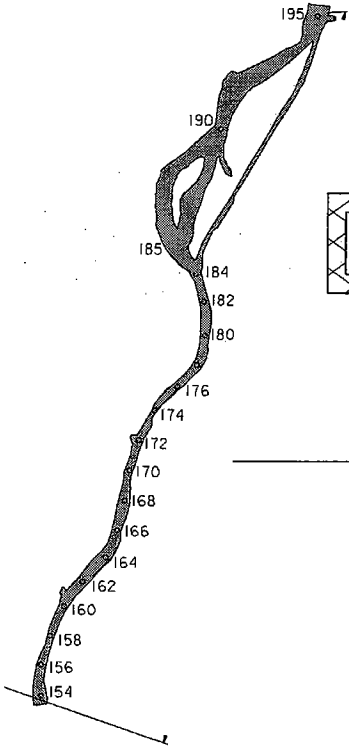
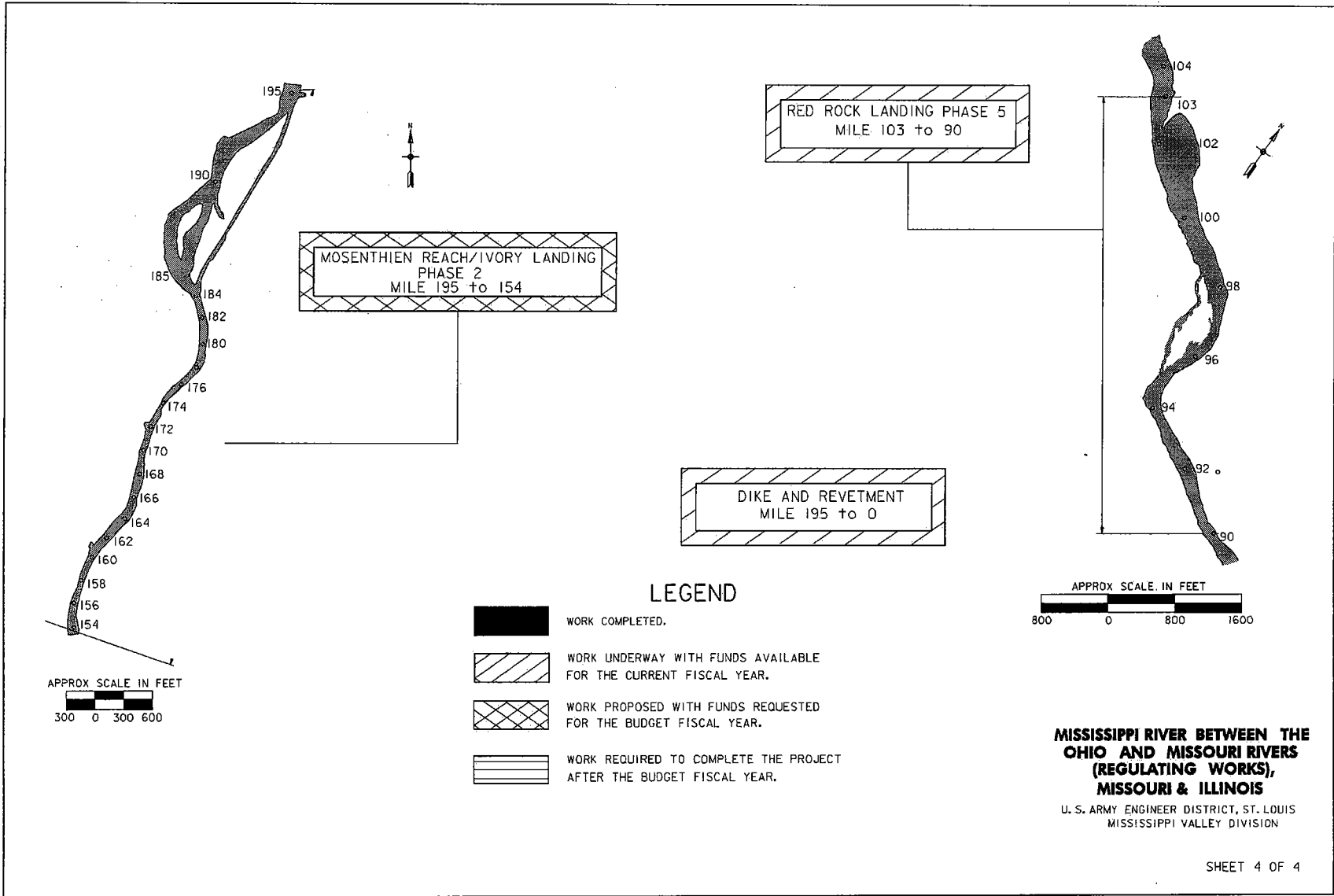
DREDGING
MILE 132 to 129



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.

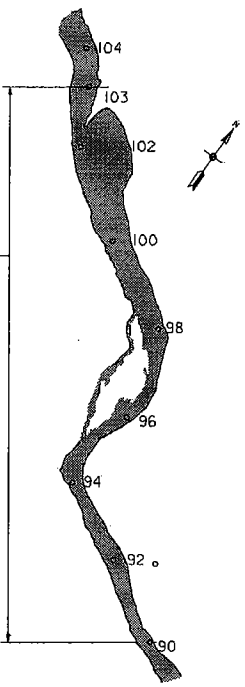
MISSISSIPPI RIVER BETWEEN THE OHIO AND MISSOURI RIVERS (REGULATING WORKS), MISSOURI & ILLINOIS
U. S. ARMY ENGINEER DISTRICT, ST. LOUIS
MISSISSIPPI VALLEY DIVISION




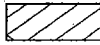

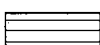
MOSENTHIEN REACH/IVORY LANDING
PHASE 2
MILE 195 to 154

RED ROCK LANDING PHASE 5
MILE 103 to 90

DIKE AND REVETMENT
MILE 195 to 0



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.

APPROX SCALE IN FEET
300 0 300 600

APPROX SCALE IN FEET
800 0 800 1600

MISSISSIPPI RIVER BETWEEN THE OHIO AND MISSOURI RIVERS (REGULATING WORKS), MISSOURI & ILLINOIS
U. S. ARMY ENGINEER DISTRICT, ST. LOUIS
MISSISSIPPI VALLEY DIVISION

COMMERCIAL NAVIGATION

CONSTRUCTION

NORTH ATLANTIC DIVISION

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 and Red Hook Channel.

DESCRIPTION: This project consolidates four authorized 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.
- 2.) The New York Harbor and Adjacent Channels, Port Jersey Channel, NJ project consists of deepening the non-Federal access channel to 41 feet MLW from the Federal Anchorage Channel to its head of navigation.
- 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.
- 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: 7.1 to 1 at 7 percent.

TOTAL BENEFIT - COST RATIO: 2.7 to 1 at 7 percent.

INITIAL BENEFIT - COST RATIO: 2.7 to 1 at 7 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 October 2001 price levels.

Division: North Atlantic

District: New York
ACCUM.

New York & New Jersey Harbor, NY and NJ
PHYSICAL

6 February 2006

SUMMARIZED FINANCIAL DATA

	PCT OF EST FED. COST	STATUS (1 Jan 2006)	PERCENT COMPLETE	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
		Port Jersey Channel (b)	40	Jan 2008
Estimated Appropriation Requirement (USCG)	4,050,000	Arthur Kill Channel (c)	20	Dec 2007
Estimated Total Appropriation Requirement	1,403,850,000	NY & NJ Harbor (50 ft) (d)	0	To be determined
		Unprogrammed work:		
Future Non-Federal Reimbursement	234,362,800	KVK		0 Indefinite
Programmed Construction	225,990,800	Entire Project:	22	Indefinite
Unprogrammed Construction	8,372,000			
		PHYSICAL DATA		
Estimated Federal Cost (Ultimate) (CoE)	1,165,437,200	a. Deepen the Kill Van Kill and Newark Bay from 35 ft to 40 ft then to 45 ft		
Programmed Construction	1,099,309,200	b. Deepen the Port Jersey Channel from 35 ft. to 41 ft.		
Unprogrammed Construction	66,128,000	c. Deepen the Arthur Kill Channel from its confluence with the Newark Bay to the Howland Hook Marine Terminal from 35 ft. to 40 ft and then from 35 ft to 40 ft to the TOSCO Terminal.		
Estimated Non-Federal Cost	1,314,698,800	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 the 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.		
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	\$2,393,266,000			
Total Estimated Unprogrammed Construction Costs	90,920,000			
Total Estimated Project Cost	\$2,484,186,000			

Division: North Atlantic
SUMMARIZED FINANCIAL DATA: (continued)

District: New York
ACCUM
PCT OF EST

New York & New Jersey Harbor, NY and NJ

		FED. COST
Allocations to 30 September 2003	\$434,261,099	
Allocation for FY2004	74,718,000	
Allocation for FY 2005	84,622,000	
Conference Allowance for FY 2006	101,000,000	
Allocation for FY 2006	99,990,000 ^{1/}	
Allocation through FY 2006	693,591,099	50
Allocation Requested for FY 2007	90,000,000	56
Programmed Balance to Complete after FY 2007	541,708,901	
Unprogrammed Balance to Complete after FY 2007	74,500,000	

^{1/} Reflects \$1,010,000 reduction due to rescission

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 2006: The allocated amount will be applied to for the NY Harbor & Adjacent Channels, Port Jersey, Areas 2B, Arthur Kill, Howland Hook Marine Terminal Areas 1 & 2, NY & NJ Harbor Deepening (50 Feet) Area S –KVK-2, A-AM-1, S-AN-1, and S-NB-1, and development of a regional dredged material treatment facility.

Division: North Atlantic

District: New York

New York & New Jersey Harbor, NY and NJ

FISCAL YEAR 2007: The requested amount will be applied as follows:

- | | |
|---|--------------|
| 1. Construction Contracts including Engineering, Design and S&A | \$82,000,000 |
|---|--------------|

6 February 2006

	a) NY Harbor & Adjacent Channels, Port Jersey, Areas 3	6,500,000	
	b) Arthur Kill, Howland Hook Marine Terminal Areas 1 & 2	6,900,000	
	c) NY & NJ Harbor Deepening (50 Feet) Area S -KVK-2, S-AM-1, S-AN-1, S-AK-1, and S-NB-1	68,600,000	
2.	NY & NJ Harbor Deepening (50 Feet) Engineering and Design		6,000,000
3.	Development of a regional dredged material treatment Facility		2,000,000
	TOTAL		\$90,000,000

Division: North Atlantic

District: New York

New York & New Jersey Harbor, NY and NJ

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:

Payments Annual

REQUIREMENTS OF LOCAL COOPERATION:	During Construction And Reimbursement	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	
Contribute 50 percent of the annual charges for interest and amortization of the Federal first cost of the Port Jersey 41-foot project and 50 percent of the operations and maintenance until the improvement is serving/benefiting multiple owners/properties. (Approximately \$3 million annually.) If multiple owners are not established, the contribution could range to a maximum of \$145,629,000.	0	
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.

(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 2006).

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.

Division: North Atlantic
OTHER INFORMATION:

District: New York

New York & New Jersey Harbor, NY and NJ

(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. An updated Project Management Plan for the consolidated project was prepared in January 2003. This plan lays out the construction activities to consolidate ongoing interim depth construction with the overall deepening project. Critical to this analysis is the ongoing extensive close

coordination with the States of New York and New Jersey, Port Authority of New York and New Jersey, the Environmental Protection Agency, US Coast Guard, and other interested agencies and public. Additional engineering and environmental analyses will be completed before extensive dredging of the 50-foot channels are undertaken. Individual opportunities to advance work, such as consolidated drilling and blasting in the Kill Van Kull channel which began in FY 2002 will be implemented.

(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.

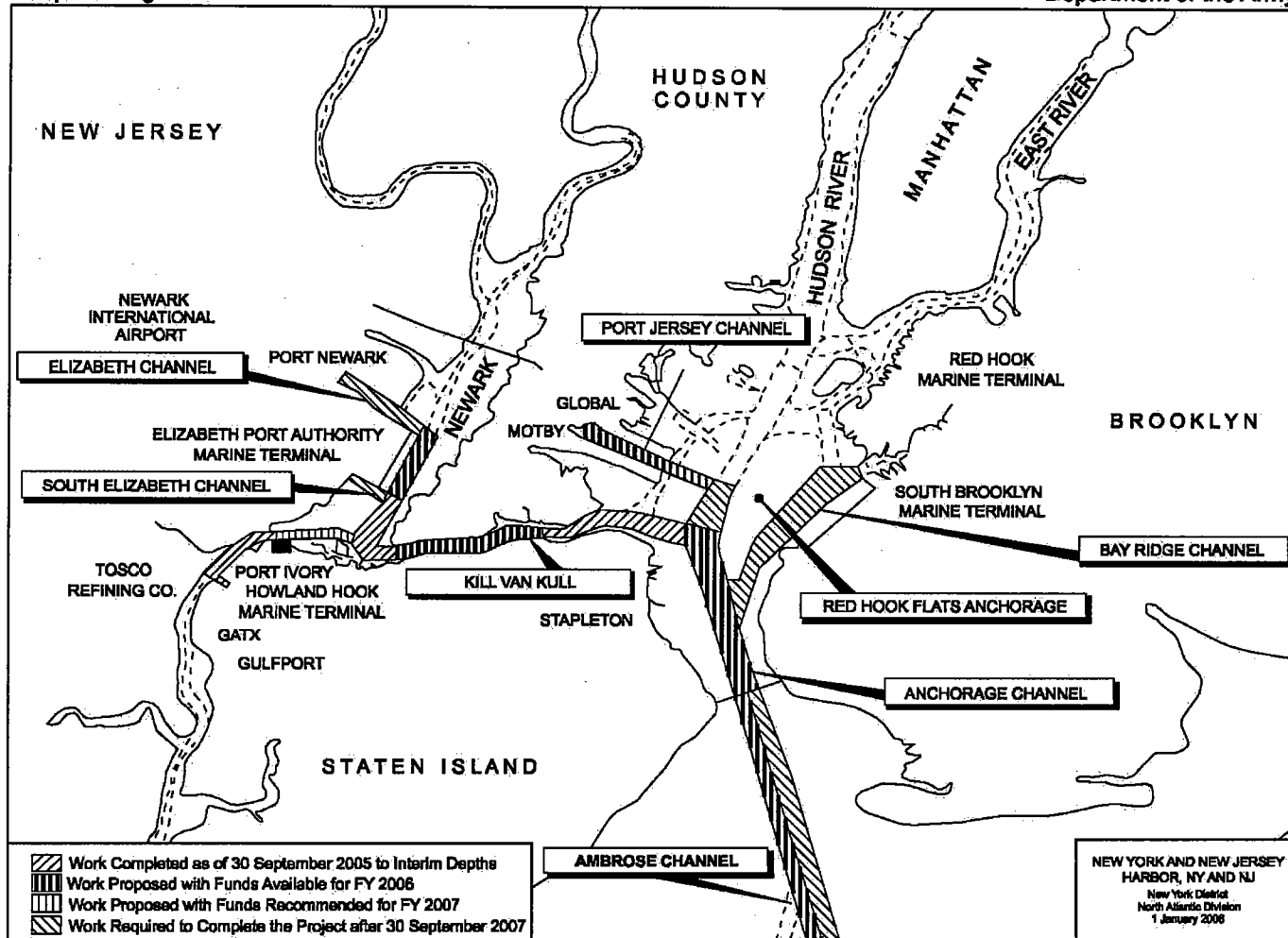
(5) On the 50-foot New York and New Jersey Harbor Deepening element, funds to initiate preconstruction engineering and design were appropriated in FY 2000 and funds to initiate construction were appropriated in FY 2002.

Division: North Atlantic

District: New York

New York & New Jersey Harbor, NY and NJ

6 February 2006



6 February 2006

COMMERCIAL NAVIGATION

CONSTRUCTION

NORTHWESTERN DIVISION

APPROPRIATION TITLE: Construction, General - Navigation

PROJECT: Columbia River Channel Improvements, Oregon and Washington (Continued - Columbia River Element)

LOCATION: The project area begins at the mouth of the Columbia River (river mile 3) and extends upstream to the vicinity of the Port of Vancouver, Washington (river mile 106.5), and also includes the Lower Willamette River from its confluence with the Columbia River (river mile 101.5) upstream to the vicinity of downtown Portland (river mile 11.6).

DESCRIPTION: Lower Columbia River ports have been the primary shipping point for West Coast grain and feed grain exports for many years. More than 42 million tons of commerce valued at more than \$15 billion was shipped to or from Lower Columbia River ports in 2003. Increasing trade between the Pacific Northwest states and the Pacific Rim nations has accentuated the need for a deepened navigation channel in the Lower Columbia River, to accommodate larger, deeper-draft vessels. The channel is currently at a 40-foot depth and generally a 600-foot width. The project area begins at the mouth of the Columbia River and extends upstream to the vicinity of the Port of Vancouver, Washington (approximately river mile 105), and also includes the Lower Willamette River from its confluence with the Columbia River (river mile 101.5) upstream to the vicinity of downtown Portland (approximately river mile 11). The Willamette River portion of construction has been deferred. The purposes of the project are to improve the deep-draft transport of goods on the authorized navigation channel and to provide ecosystem restoration for fish and wildlife habitats.

AUTHORIZATION: Section 101(b)(13) of WRDA 1999.

REMAINING BENEFIT - REMAINING COST RATIO: 2.1 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 1.66 to 1 at 7 percent.

BASIS OF BENEFIT-COST RATIO: Benefits are from approved Final Supplemental Integrated Feasibility Report and Environmental Impact Statement for Channel Improvements, Columbia River Federal Navigation Channel, January 2003.

THE INITIAL BENEFIT - COST RATIO: 1.9 to 1 at 6-7/8% (FY 2001)

SUMMARIZED FINANCIAL DATA 1/

			ACCUM PCT OF EST FED COST Entire Project	STATUS (1 JAN 2006) 28%	PCT COMPL To Be Determined
Estimated Federal Cost		\$101,373,000			
Estimated Non-Federal Cost		58,779,000	2/		
Cash Contributions	\$38,463,000				
Other Costs	20,316,000				
Total Estimated Project Cost		160,152,000	2/		

Division: Northwestern

District: Portland

Columbia River Channel Improvements, OR & WA

6 February 2006

SUMMARIZED FINANCIAL DATA (Continued)

		ACCUM PCT OF EST FED COST	PHYSICAL DATA
Allocations to 30 September 2003	\$3,734,800		
Allocation for FY 2004	1,404,000		
Allocations for FY 2005	7,435,000		Deepen 103.5 miles of the Columbia river channel from 40' to 43'.
Conference Allowance for FY 2006	15,000,000		Deepen 11.6 miles of the Willamette river channel from 40' to 43'.
Allocation for FY 2006	14,850,000		Deepen three turning basins on the Columbia and three on the Willamette to 43'
Allocations through FY 2006	28,763,200	3/ 28%	Construct environmental mitigation and restoration features at selected locations
Allocation Requested for FY 2007	15,000,000	43%	
Programmed Balance to Complete after FY 2007	57,609,800		
Unprogrammed Balance to Complete after FY 2007	0		

1/ The cost of the Willamette River Channel Improvements element is not included in the summarized financial data.

2/ Includes \$3.315 million increment of the Locally Preferred Plan (LPP) over NED Plan and credit for an estimated \$10 million of non-Federally performed work.

3/ Includes \$1,339,400 of General Investigation (Preconstruction Engineering and Design) funds and \$13,133,800 of Construction, General funds.

JUSTIFICATION: The need for navigation improvements has been driven by the steady growth in waterborne commerce and the use of larger, more efficient vessels to transport bulk commodities. With the increased use of deep-draft vessels, limitations posed by the existing channel dimensions now occur with greater frequency. By improving navigation, the opportunity to realize greater benefits would result from reducing transportation costs by allowing deep-draft vessels to carry more tonnage, and by reducing vessel delays. For these reasons, a coalition of the Lower Columbia River Ports (Port of Portland in Oregon and Vancouver, and Kalama, Longview, and Woodland in Washington) committed to sponsor the project construction. Columbia River ports are second in the world in grain exports. Each year, about 2,000 ocean-going ships transit the Columbia River, carrying approximately \$15 billion in imports and exports. Deepening the Columbia River from 40-43 feet is necessary to accommodate the larger, deeper-draft cargo ships that comprise a growing share of worldwide shipping fleets. Today, 20 percent of the wheat, 45 percent of the corn, 70 percent of the soybeans, and 90 percent of the containerized exports leaving lower Columbia River ports are carried on ships requiring some or all of the additional three feet in depth.

FISCAL YEAR 2006: Deepening of the Columbia River began in FY05 with approximately 20 river miles in the lower river and 8 river miles in the Portland/Vancouver area being constructed. The allocation amount of \$14,850,000 will be used to continue deepening in up to approximately River Mile 30 and initiation of a rock removal contract. In addition one mitigation site and two ecosystem restoration features will be initiated, and one ecosystem restoration feature will be continuing from FY05.

FISCAL YEAR 2007: A small portion of the dredging contract from FY06 up to approximately River Mile 30 would continue until the end of October due to safety restrictions in crossing the Columbia River Bar. An additional dredging contract will be initiated in FY 2007 to approximately River Mile 60. Part of the rock contract will continue into FY 07 due to in-water work windows (November through February) for a portion of the rock contract. In addition two mitigation sites and two ecosystem restoration features will be initiated, and one ecosystem restoration feature will be continuing from FY 06. The requested amount of \$15,000,000 will be applied as follows:

Item:	Amount:
Channel Dredging Contracts	\$8,400,000
Mitigation Contracts	800,000
Ecosystem Restoration Contracts	2,000,000
Planning Engineering, Design & Monitoring	2,600,000
Construction Management	<u>1,200,000</u>
	\$15,000,000

NON-FEDERAL COSTS:

	Payments During Construction And Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Requirements for Local Cooperation		
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal area.	19,374,000	
Modify or relocate or remove utilities, roads bridges (except railroad bridges), dredging of berthing areas, and other facilities, where necessary for construction of the project.	942,000	
Pay 25 percent of the separable and joint costs allocated to the NED plan for navigation	30,233,000	

channel improvements offset by credit for authorized construction (an estimated \$10 million) by the sponsor from river mile 95 to the upstream end of the project, and have the amount credited against their total cost share,

Pay an estimated \$2,483,000 for the incremental first costs of the locally preferred plan over the NED plan and pay an estimated \$450,000 in incremental annual operating and maintenance costs over the operating and maintenance costs of the NED navigation plan.	2,483,000	450,000
--	-----------	---------

Pay 35 percent of the first costs allocated to ecosystem restoration and provide all costs for ecosystem restoration operation and maintenance	5,747,000	38,000
--	-----------	--------

Total Non-Federal Costs	58,779,000	488,000
--------------------------------	-------------------	----------------

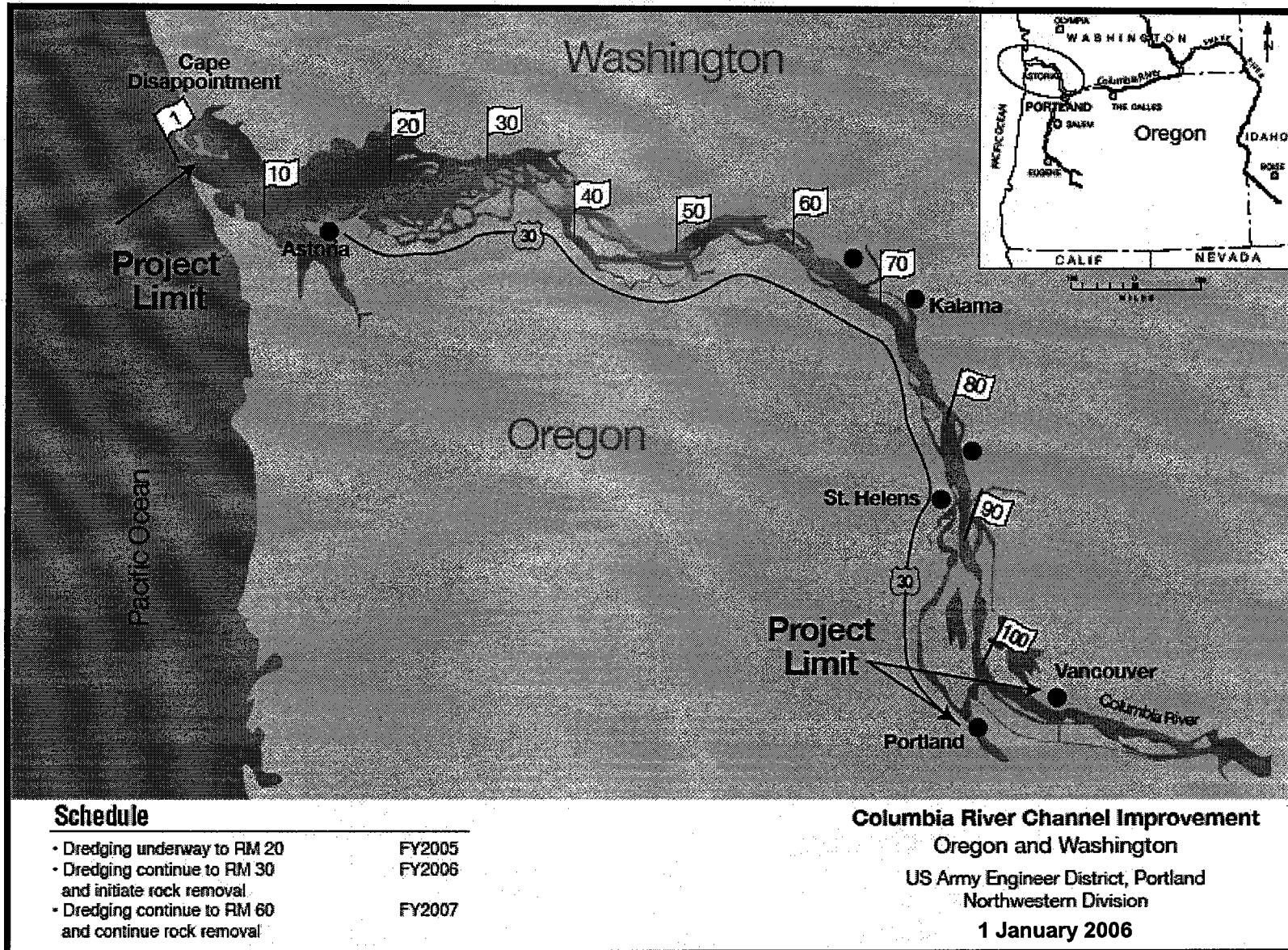
STATUS OF LOCAL COOPERATION: The non-federal sponsors for this project are the Ports of Portland, Oregon and Vancouver, Kalama, Longview, and Woodland, Washington. The PCA was executed on 23 June 2004. The non-Federal sponsors are committed to this project and have all funds necessary to construct the project. It should be noted that, at the request of the local sponsors, dredging of the Willamette River will be delayed in order to allow coordination with an ongoing EPA and State of Oregon evaluation and remediation planning for the Portland Harbor. This will delay construction of the Willamette River portion to insure that final implementation decisions incorporate both the evaluation results and the remediation plan.

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal cost estimate of \$101,373,000 is the same as last presented to Congress (FY 2006).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Corps of Engineers completed a new Biological Assessment for the project in December 2001. NMFS and USFWS issued new no-jeopardy Biological Opinions in May 2002. The Corps completed a Supplemental Integrated Feasibility Report and Environmental Impact Statement in November 2002. The Record of Decision was signed on 9 January 2004.

OTHER INFORMATION: The project was authorized for construction in WRDA 1999. Construction General funding was first appropriated in FY 2001.

The disposal sites will consist of 29 upland sites, with a total of 1,681 acres; three beach nourishment and two ocean disposal sites for the disposal of construction and subsequent channel maintenance dredged material. Fourteen of the upland disposal sites, totaling 1,025 acres, are currently in use. All federal and state approvals have been received.



COMMERCIAL NAVIGATION

CONSTRUCTION

PACIFIC OCEAN DIVISION

APPROPRIATION TITLE: Construction, General, Fiscal Year 2007

PROJECT: Chignik Harbor, Alaska (Continuing)

LOCATION: Chignik is located in southwest Alaska on the south shore of the Alaska Peninsula.

DESCRIPTION: The project consists of a 1,120-foot southern rubblemound breakwater and a 940-foot northern breakwater, with a 150-foot wide entrance channel through a gap in the breakwaters. The harbor will serve 9 acres of moorage. Phase I completion of the breakwater is complete. Phase II includes dredging of the entrance channel, turning basin, and berthing areas.

AUTHORIZATION: Water Resource Development Act of 1996

REMAINING BENEFIT-REMAINING COST RATIO: 4.5 to 1.0 at 7 percent.

TOTAL BENEFIT-COST RATIO: The current benefit to cost ratio is 1.8 to 1.0 at 7 percent.

INITIAL BENEFIT-COST RATIO: 2.35 to 1.0 at 7-1/8 percent (FY 1998).

BASIS OF BENEFIT-COST RATIO: Feasibility Report of February 1996 at October 1995 price levels.

SUMMARIZED FINANCIAL DATA:

	\$	STATUS (1 January 06)	% Complete	Completion Schedule
Estimated Appropriation Requirement (COE)	16,548,000	Entire Project	100	September 2007
Estimated Appropriation Requirement (U.S. Coast Guard)	8,000			
Estimated Total Appropriation Requirement	16,556,000			
Future Non-Fed Reimbursement	1,839,000			
Estimated Federal Cost (Ultimate) (COE)	14,717,000			
Estimated Non-Fed Cost	3,677,000			
Cash Contributions	2,612,000			
Other	100,000			
Reimbursement	965,000			
Total Estimated Project	18,394,000			

APPROPRIATION TITLE: Construction, General, Fiscal Year 2007

		Accmltd % est. FED cost	PHYSICAL DATA	Northern	Southern
Allocations thru 30 September 2003	5,991,075		Breakwater length	940	1,120
Allocations for FY 2004	1,050,000		Entrance Channel		
Allocations for FY 2005	2,527,000		Width (ft)	150	
Conference Allowance for FY 2006	2,000,000		Depth (ft)	-19.5	
Allocations for FY 2006	1,980,000	1/	Mooring Area		
Allocations through FY 2006	11,548,075	63%			
Programmed Balance to Complete after FY 2006	0		Total Area	-12 to -	
Unprogrammed Balance to Complete after 2006	0		MLLW Depth (ft)	16.5	
Allocations requested for FY 2007	5,000,000	100%	Acres	9.0	
1/ Reflects a rescission of \$20,000					

JUSTIFICATION: The city of Chignik is situated on the south shore of Alaska Peninsula in Southwestern Alaska. It is an active and growing island port whose economy is heavily dependent on commercial fishing. The local fleet presently anchors in the ice free, but inadequately protected harbor or ties up at the exposed city dock. At present boats are subject to overcrowding and hazardous mooring conditions between fishing periods. The anchorage is exposed to all storms from the southeast clockwise to the northwest. The violent southeast and northwest storms often damage and sometimes destroy boats by forcing them ashore or on the exposed rock reefs at low tides. The proposed project would provide a protected harbor, which would produce benefits in the form of reduced boat damage, increased fish harvest, and a harbor of refuge. The average annual navigation benefits attributable to the project are currently estimated at \$1,695,400.

FISCAL YEAR 2006: The allocated amount of \$1,980,000 will be used to finalize plans and specifications and construction contract documents for Phase II dredging contract. The balance of funds will be carried over into FY07 to award a fully funded contract.

Complete Engineering and Design	100,000
Fully Funded Contract Carryover	1,880,000
Total	1,980,000

FISCAL YEAR 2007: The requested amount of \$5,000,000 will be applied to award a fully funded contract as follows:

Complete Channels and Canals	4,750,000
Complete Construction Management	250,000
Total	5,000,000

APPROPRIATION TITLE: Construction, General, Fiscal Year 2007

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, and replacement costs (\$)
Requirements of Local Cooperation Reimbursements Costs		
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas.	100,000	
Pay 10 percent of the costs allocated to deep draft navigation during construction.	1,830,000	
Pay 25 percent of the costs allocated to general navigation features during construction.	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 is 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 commercial navigation.	1,730,000	
Local Service Facilities		
Total Non-Federal Costs	3,660,000	0

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction and reimburse its share of construction costs over a period not to exceed thirty years.

STATUS OF LOCAL COOPERATION: The City Council of Chignik, Alaska, has agreed to meet all requirements of local cooperation. The Project Cooperation Agreement was signed on 18 August 2000.

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal (Corps of Engineers) Cost Estimate of \$16,548,000 is an increase of \$6,960,000 over the last estimate (\$ 9,588,000) presented to Congress in 2005.

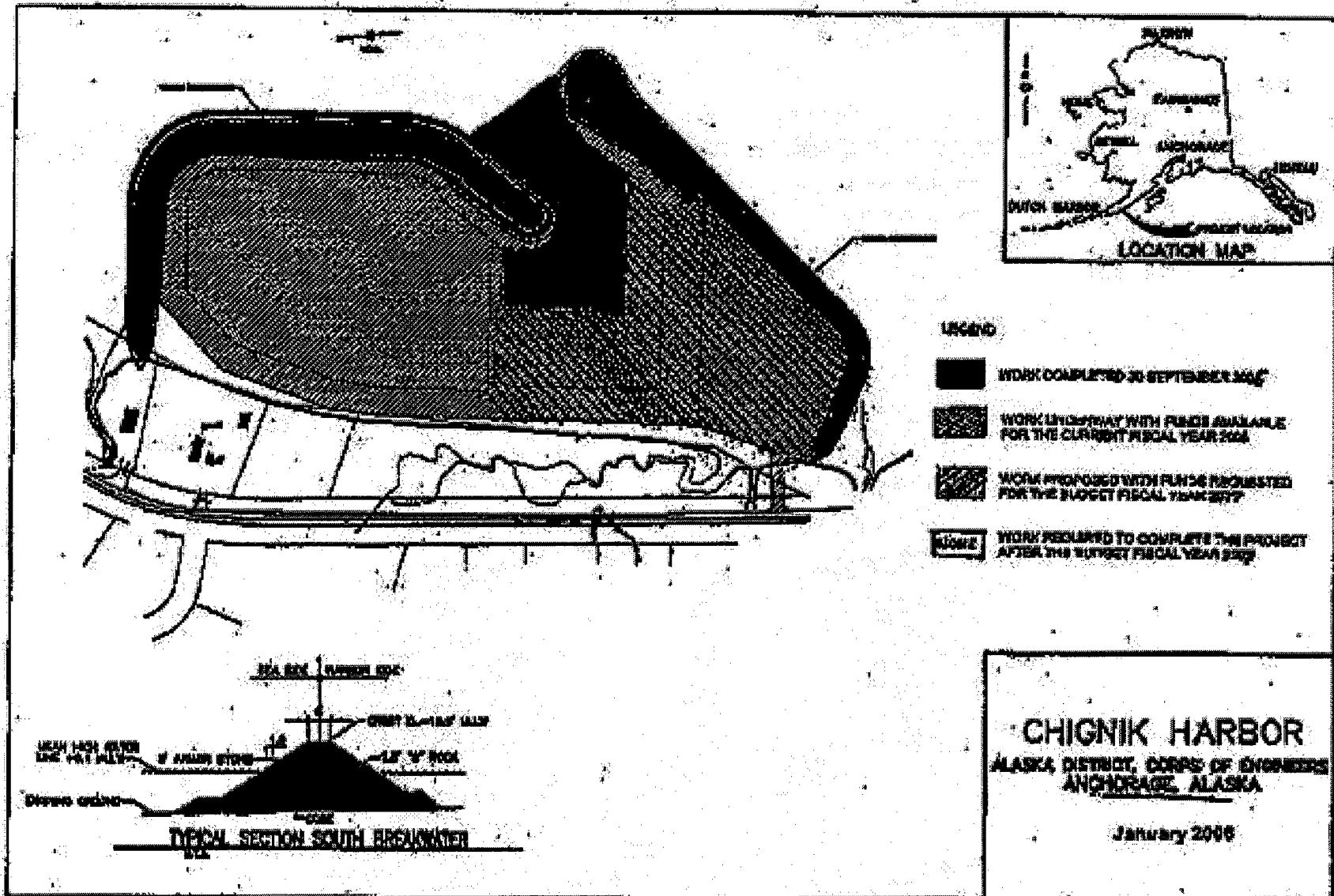
Item	Amount (\$)
Price Escalation on Construction Features	350,000
Design Changes due to Differing Site Conditions	6,610,000
Total	6,960,000

APPROPRIATION TITLE: Construction, General, Fiscal Year 2007

STATUS OF ENVIRONMENTAL IMPACT STATEMENT AND COMPLIANCE WITH CLEAN WATER ACT:

- The final supplemental environmental impact statement was submitted to EPA in March 1996.
- The provisions of Section 404 of the Clean Water Act were met with the submission of the EIS including a Section 404 (b)(1) evaluation to Congress in July 1996.

OTHER INFORMATION: Initial planning funds (PED) were received in FY 1996 and construction funds in FY 1998. The scheduled completion date is a slippage from the latest presented to Congress due to changed conditions at the construction site.



APPROPRIATION TITLE: Construction, General - Channels and Harbors (Navigation)
 PROJECT: Sand Point Harbor Improvement, Alaska (Continuing)

LOCATION: The City of Sand Point is located on the northwest portion of Popof Island, in the Shumagin Island group that lies south of the Alaska Peninsula. Sand Point is located 570 air miles southwest of Anchorage, AK.

DESCRIPTION: The project consists of a 730 foot rubblemound breakwater and a 550 foot extension to the existing southern breakwater, and dredging an entrance and maneuvering channel. The harbor would provide protected moorage for 37 large commercial fishing vessels ranging in length from 80 to 150 feet.

AUTHORIZATION: WRDA 1999.

REMAINING BENEFIT-REMAINING COST RATIO: 6.7 to 1.0 at 7 percent.

TOTAL BENEFIT-COST RATIO: 2.4 to 1.0 at 7 percent.

INITIAL BENEFIT-COST RATIO: 2.0 to 1.0 at 5-7/8 percent (FY 2003).

BASIS OF BENEFIT-COST RATIO: Benefits are from the latest Limited Evaluation Report, approved in March 2004 at 2005 price levels.

SUMMARIZED FINANCIAL DATA:

		STATUS (1 January 06)	Percent Complete	Completion Schedule
		Entire Project	100	Sep 07
Estimated Appropriation Requirement (Cof E)	\$10,889,000			
Estimated Appropriation Requirement (U.S. Coast Guard)	9,000			
Estimated Total Appropriation Requirement	10,898,000			
Future Non-Fed Reimbursement	1,210,000			
Estimated Federal Cost (Ultimate)	9,688,000			
Estimated Non-Fed Cost	2,420,000			
Cash Contributions	\$1,287,000			
Other	50,000			
Reimbursement	1,083,000			
Total Estimated Project	\$12,108,000			

SUMMARIZED FINANCIAL DATA (Continued)

		ACCUMULATED % OF EST. FED COST		
Allocations to 30 September 2003	\$ 308,000			
Allocations for FY 2004	73,000			
Allocations for FY 2005	\$ 2,553,000		PHYSICAL DATA	Main
Conference Allowance for FY2006	4,500,000			
Allocations for FY 2006	4,455,000 1/		Breakwater Length (ft)	1,300
Allocations thru FY 2006	7,389,000	68%	Entrance Channel	
Programmed Balance to Complete	0			
Unprogrammed Balance to Complete after 2007	0			
Allocations requested for FY 2007	3,500,000	100%	Width (ft)	120
			Depth (ft)	-18
			Mooring Area	
			Total Area MLLW Depth	-18
			Acres	11.6

1/ Reflects a rescission of \$45,000.

JUSTIFICATION: The city of Sand Point is situated on the Pacific coast of the Southwestern Alaska Peninsula. It is an active and growing island port whose economy is heavily dependent on commercial fishing. The harbor currently provides protected moorage for 144 vessels less than 80 feet in length but no permanent moorage for vessels larger than 80 feet. In recent years, the transient fleet operating in the Bering sea/Aleutian Islands area has grown significantly. The proposed project would provide a protected harbor, which would produce benefits in the form of reduced boat damage, increased fish harvest, and a harbor of refuge. The average annual navigation benefits attributable to the project are currently estimated at \$862,000.

FISCAL YEAR 2006: The amount of \$4,455,000 will be applied as follows:

Continue Breakwaters and Seawall	\$4,200,000
Continue Engineering and Design	50,000
Continue Construction Management	205,000
Total	\$4,455,000

FISCAL YEAR 2007: The requested amount of \$3,500,000 will be applied as follows:

Complete Breakwaters and Seawall	\$3,250,000
Complete Engineering and Design	50,000
Complete Construction Management	200,000
Total	\$3,500,000

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.

	Payments During Construction, and Reimbursements Costs	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.	\$ 50,000	
Pay 10 percent of the costs allocated to deep draft navigation during construction.	\$1,210,000	
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 is 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 commercial navigation.	\$1,160,000	
Total Non-Federal Costs	\$2,420,000	

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction and reimburse its share of construction costs over a period not to exceed thirty years.

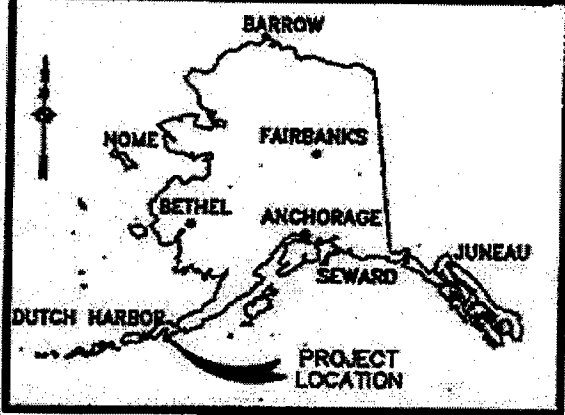
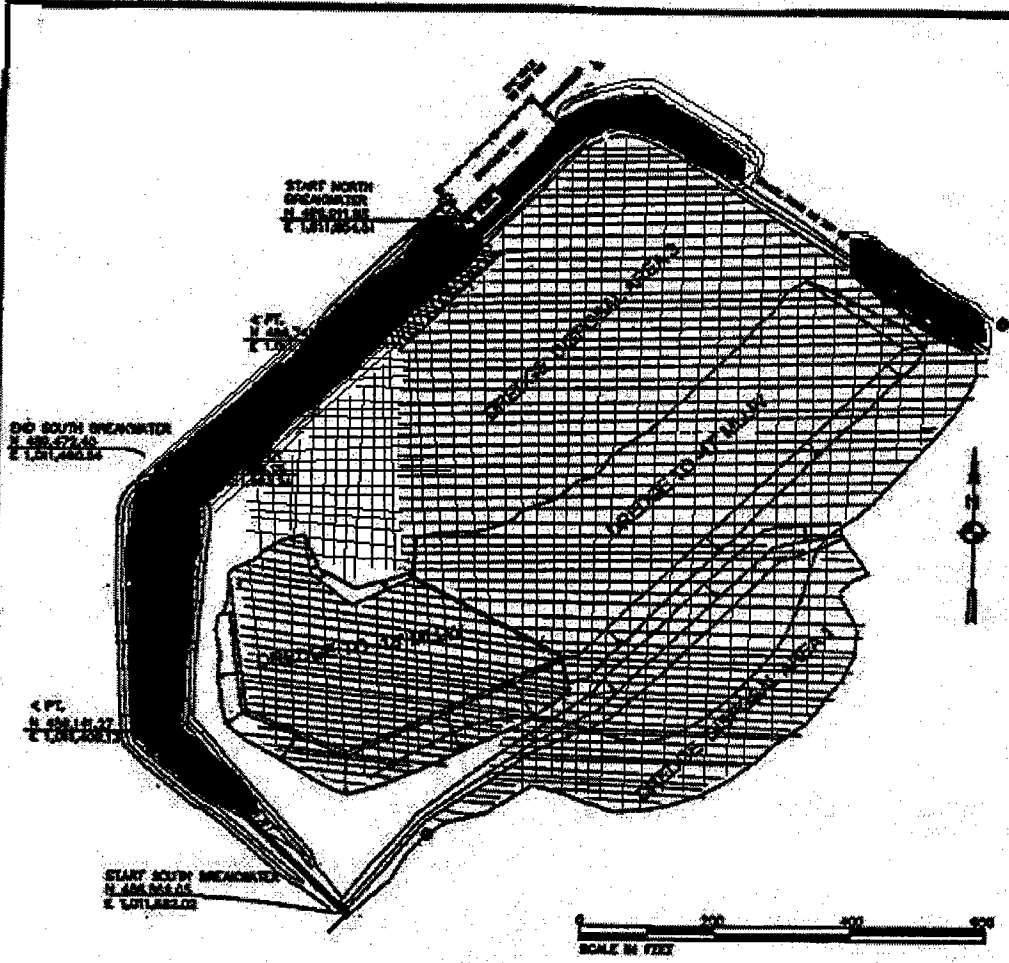
STATUS OF LOCAL COOPERATION: The Aleutian East Borough, Alaska, agreed to meet all requirements of local cooperation and a Project Cooperation Agreement was executed in November 2004.

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal Cost Estimate (Corps of Engineers) of \$10,889,000 is the initial estimate presented to Congress (FY 2007).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT AND COMPLIANCE WITH CLEAN WATER ACT:

- a. The environmental assessment was submitted to EPA in January 1998.
- b. The provisions of Section 401 of the Clean Water Act were met with the submission of the EA including a Section 404 (b)(1) evaluation to Congress in October 1998.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1998. Funds to initiate construction were appropriated in FY 2003 and the construction contract awarded on 16 March 2005.



LOCATION MAP

LEGEND

- NONE WORK COMPLETED 30 SEPTEMBER 2005
- WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR 2006
- WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR 2007
- NONE WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR 2007



ALASKA DISTRICT
CORPS OF ENGINEERS

SAND POINT HARBOR IMPROVEMENTS

JANUARY 2006

COMMERCIAL NAVIGATION

CONSTRUCTION

SOUTH ATLANTIC DIVISION

APPROPRIATION: Construction, General - Channels and Harbors (Navigation)

PROJECT: Mobile Harbor, Alabama, (Continuing)

LOCATION: The project is located in southwest Alabama and extends from the Gulf of Mexico through Mobile Bay to the mouth of Mobile River at the City of Mobile, Alabama, a distance of approximately 39.0 miles. Mobile Harbor is located in Mobile County, AL, approximately 150 miles east of New Orleans, LA, and 60 miles west of Pensacola, FL.

DESCRIPTION: The existing project, also known as Phase I improvements completed in May 1990, provides for a 47 by 600 foot entrance channel for a distance of 6.1 miles, and a bay channel 45 by 400 feet from the mouth of the bay north for a distance of 31.2 miles to the McDuffie Coal terminal.

Phase I – 1300' Channel Extension, completed in May 2000 extended the 45-foot by 400-foot navigation channel approximately 1300 linear feet to the north of its original position.

Phase I – 2100' Channel Extension, will extend the 45-foot by 400-foot navigation channel approximately 2100 linear feet to the north of the 1300' extension.

Phase I – 1200' Channel Extension, will extend the 45-foot by 400-foot navigation channel approximately 1200 linear feet to the north of the 2100' extension.

Turning Basin – Construct the authorized turning basin (1500' x 1500' x 45') south of Pinto Island and east of McDuffie Island.

Authorized channel improvements known as Phase II (Remainder) provide for future development to deepen and widen the entrance channel over the bar to 57 feet by 700 feet about 7.4 miles long, deepen and widen the bay channel to 55 feet by 550 feet about 27.0 miles long, deepen and widen an additional 3.6 miles of bay channel to 55 feet by 650 feet and provide 55 foot deep anchorage area and turning basin in vicinity of Little Sand Island.

AUTHORIZATION: Supplemental Appropriations Act of 1985 and the Water Resources Development Act of 1986.

REMAINING BENEFIT-REMAINING COST RATIO: 2.2 to 1 at 7% for Phase I 2100-ft Extension; 12.3 to 1 at 7 percent for Phase I 1200-ft extension; 8.3 to 1 at 7% for Phase I 2100-ft and 1200-ft extensions; TBD for the Turning Basin and 1.5 to 1 at 7 1/8% for the Remainder.

TOTAL BENEFIT-COST RATIO: 2.8 to 1 at 8 1/8 percent for Phase I; 5.5 to 1 at 7-3/8 percent for Phase I 1300-ft Extension; 2.2 to 1 at 7 percent for Phase I 2100-ft Extension; 12.3 to 1 at 7 percent for Phase I 1200-ft Extension; TBD for the Turning Basin and 1.5 to 1 at 7-1/8 percent for Remainder.

INITIAL BENEFIT-COST RATIO: 2.8 to 1 at 8 1/8 percent for Phase I (FY 1985); 5.5 to 1 at 7-3/8 percent for Phase I 1300-ft. Extension (FY 1999); 2.2 to 1 at 7 percent for Phase I 2100-ft. Extension; 12.3 to 1 at 7 percent for Phase I 1200-ft Extension; TBD for the Turning Basin and 1.5 to 1 at 7-1/8 percent for Remainder.

BASIS OF BENEFIT-COST RATIO:

Phase I - Benefits are from the General Design Memorandum dated August 1984 at October 1984 price levels.

Phase I 1300-ft. Extension - Benefits are from the Limited Reevaluation Report prepared in May 1997 at October 1997 price levels.

Phase I 2100-ft Extension - Benefits are from the Limited Reevaluation Report prepared in July 2000 at October 2000 price levels.

Phase I 1200-ft. Extension - Benefits are from the Limited Reevaluation Report , approved in March 2002 at October 2002 price levels.

Phase II (Remainder) - Benefits are from the General Design Memorandum dated August 1984 at October 1984 price levels.

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST	STATUS (1 Jan 2006)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Appropriation Requirement (COE)		\$ 291,816,000	Phase I (Deepening)	100	Sep 1994
Estimated Appropriation Requirement (USCG)		3,933,000	Phase I (1300' Extension)	100	May 2000
Estimated Total Appropriation Requirement		295,749,000	Phase I (2100' Extension)	0	Sep 2007
Future Non-Federal Reimbursement		51,623,000	Phase I (1200' Extension)	0	TBD
Estimated Federal Cost (Ultimate)		244,126,000	Turning Basin	0	TBD
			Phase II (Remainder)	0	TBD
Estimated Non-Federal Cost		284,874,000	Entire Project	9	TBD
Cash Contributions	223,966,000				
Other Costs	9,285,000				
Reimbursements	51,623,000				
Phase I (Deepening)	\$ 3,772,000				
Phase I (1300' Ext.)	81,000				
Phase I (2100' Ext.)	292,000				
Phase I (1200' Ext.)	214,000				
Turning Basin	3,430,000				
Phase II (Remainder)	43,834,000				
Total Estimated Project Cost		529,000,000			
Allocations thru 30 September 2003		28,967,580			
Allocation for FY 2004		21,000			
Allocation for FY 2005		26,420			
Conference Allowance for FY 2006		2,000,000			
Allocation for FY 2006		1,980,000	1/		
Allocation thru FY 2006		30,995,000		10%	
Allocation Requested for FY 2007		2,069,000		11%	
Programmed Balance to Complete after FY 2007		1,604,000			
Unprogrammed Balance to Complete after FY 2007		257,148,000			

1/ \$20,000 was rescinded

Division: South Atlantic

District: Mobile

Mobile Harbor, AL

1 March 2006

PHYSICAL DATA:

Phase I (Complete) – Deepen entrance channel to 47 by 600 feet and deepen bay channel to 45 by 400 feet for a total distance of 37.3 miles.

Phase I (1300' Extension)(Complete) - extend 45 foot channel approximately 1,300 linear feet to the north of the original location.

Phase I (2100' Extension) – extend 45-foot channel approximately 2,100 linear feet to the north of previous 1300' extension.

Phase I (1200' Extension) – extend 45-foot channel approximately 1,200 linear feet to the north of 2100' extension.

Turning Basin – construct the authorized turning basin (1500' x 1500' x 45') south of Pinto Island and east of McDuffie Island.

Phase II (Remainder) - deepen entrance channel from 47 by 600 to 57 by 700 feet and deepen bay channel from 45 by 400 to 55 by 550 feet.

JUSTIFICATION:

Phase I (1300' Extension) - Officials of the Alabama State Port Authority (ASPA) requested that the 45-foot deep channel section be extended northward of McDuffie Island to accommodate ships of 900 feet in length, with beams of 140 feet, which require a 45-foot channel depth. This request reflects a desire to import iron ore and other dry, bulk materials such as limestone and coal to McDuffie Island and to industries located above McDuffie Island. In FY 1994, 45,000,000 tons of cargo passed through the port. Of this number over 14,000,000 tons were comprised of coal and lignite. Cost savings of \$0.44 per ton will be realized with the completion of the channel extension. Average annual benefits to the navigation project are \$578,800.

Phase I (2100' Extension) - Officials of the Alabama State Port Authority requested that the 45-foot deep channel section be extended northward of the 1300' extension to facilitate additional industries utilizing the larger ore and cargo ships now calling at other ports. Average annual costs, amortized over the project life of 50-years, are \$150,542. Average annual benefits are \$336,875.

Phase I (1200' Extension) - Officials of the Alabama State Port Authority requested that the 45-foot deep channel section be extended northward of the 1300' and 2100' extensions to facilitate additional industries utilizing the larger ore and cargo ships now calling at other ports. Average annual costs, amortized over the project life of 50-years, are \$227,482. Average annual benefits are \$2,969,156.

Turning Basin - Officials of the Alabama State Port Authority requested that the turning basin (1500' x 1500' x 45') be designed and constructed. Increased traffic calling at the port and associated congestion necessitates a turning basin to improve safety and operating efficiency.

Phase II (Remainder) - Mobile Harbor is a leading harbor on the Gulf Coast, particularly with regard to coal shipments. Waterborne commerce for 1995 was a record 51 million tons. Presently, coal shipments average 14 million tons per year. Channel deepening and navigational improvement features are required to provide a safe and efficient harbor for the large coal vessels calling at the Port of Mobile. The capacity of the McDuffie Coal Handling Terminal is 25 million tons annually. U.S. Department of Energy's "Energy Information Administration's Coal Transport Model" suggests growth in coal shipments through the Port of Mobile over the next 20 years, from 14 to 19 million tons annually. Vessels that can economically utilize the existing Federal 45-foot channel have a carrying capacity of

Division: South Atlantic

District: Mobile

Mobile Harbor, AL

1 March 2006

about 45,000 to 50,000 deadweight tons. With a 55-foot channel, vessels with carrying capacities of 145,000 to 150,000 deadweight tons can be economically utilized. This increase in carrying capacity results in a corresponding increase in economies of scale and savings in transportation costs. Transportation savings on coal exported to Europe of \$5 to \$6 per ton would be realized by using the larger vessels. Coal shipped to Japan in the larger vessels would realize a savings of about \$16 per ton. Iron ore imported from Canada and Brazil could also be shipped more economically at savings of about \$3 and \$5.25 per ton, respectively. The average annual benefits are \$105,308,000.

Fiscal year 2006 funding will be used to initiate the General Re-evaluation Report for the Turning Basin and for the Phase 1 2100-ft. extension.

FISCAL YEAR 2007: The requested amount will be applied as follows.

Initiate and complete construction for Phase I 2100 ft. Ext.	\$ 1,769,000
Planning, Engineering & Design for Phase I 2100 ft. Ext.	\$ 100,000
Construction Management for Phase I 2100 ft. Extension	\$ 200,000
 Total	 \$2,069,000

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, and Replacement Costs
PHASE I		
Pay 25 percent of the costs allocated to general navigation facilities during construction.	\$9,430,000	0
Reimbursement of 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.	3,772,000	0
PHASE I (1300-ft EXTENSION)		
Pay 25 percent of the costs allocated to general navigation facilities during construction.	201,000	0
Reimbursement of 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.	81,000	0

Requirements of Local Cooperation (Continued)	Payments During Construction And Reimbursements	Annual Operation, Maintenance, and Replacement Costs
PHASE I (2100' EXTENSION)		
Pay 25 percent of the costs allocated to general navigation facilities during construction.	\$730,000	0
Reimbursements of 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.	292,000	0
PHASE I (1200' EXTENSION)		
Pay 25 percent of the costs allocated to general navigation facilities during construction.	\$534,000	0
Reimbursements of 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.	214,000	0
Pay 100 percent of the costs allocated to berthing areas and mooring facilities (without credit).	1,560,000	0
TURNING BASIN		
Pay 25 percent of the costs allocated to general navigation facilities during construction.	\$8,574,000	0
Reimbursements of 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.	3,430,000	0
PHASE II (REMAINDER)		
Pay 25 percent of the costs allocated to general navigation facilities to a depth of 45 feet below mean low water.	\$ 14,451,000	0
Pay 50 percent of the costs allocated to general navigation facilities to a depth greater than 45 feet but not less than 50 feet below mean low water.	92,575,000	0
Pay 50 percent of costs from 50 feet to 55 feet below mean low water.	105,196,000	0

Division: South Atlantic

District: Mobile

Mobile Harbor, AL

1 March 2006

disposal sites, Mobile-north and Mobile-south, for dredged material disposal was signed by the Division Engineer, South Atlantic Division, on May 13, 1986. This supplement to the FEIS evaluated the specific impacts of designation of two areas within the Gulf of Mexico for the purpose of receiving dredged material of suitable quality from the Mobile Harbor project and other navigation projects within the Mobile Harbor area. The FEIS, Supplement to the FEIS, and ROD were fully coordinated with the public and State and Federal agencies. The commenting agencies concurred with the recommended alternative as described in the FEIS and Supplement.

An Environmental Assessment (EA) and Finding of No Significant Impact (FONSI) for the Phase I, 1300' extension were completed in April 1997. A second EA/FONSI for the Phase I, 2100' extension were prepared in June 1999. A third EA/FONSI for the Phase I, 1200' extension was prepared in November 2001.

OTHER INFORMATION: Funds to initiate Preconstruction, Engineering and Design were appropriated in Fiscal Year 1982 and funds to initiate construction were appropriated in Fiscal Year 1985.

Summarized Financial Data for PHASE I 2100' EXTENSION

Estimated Appropriation Requirements (COE)		\$2,189,000
Estimated Appropriation Requirements (USCG)		0
Estimated Total Appropriation Requirements		2,189,000
Future Non-Federal Reimbursement		292,000
Estimated Federal Cost (Ultimate)(COE)		1,897,000
Estimated Non-Federal Cost:		1,022,000
Cash Contributions	\$	730,000
Other Costs		0
Reimbursements		292,000
Total Estimated Project Cost		\$2,919,000

Summarized Financial Data for PHASE I 1200' EXTENSION

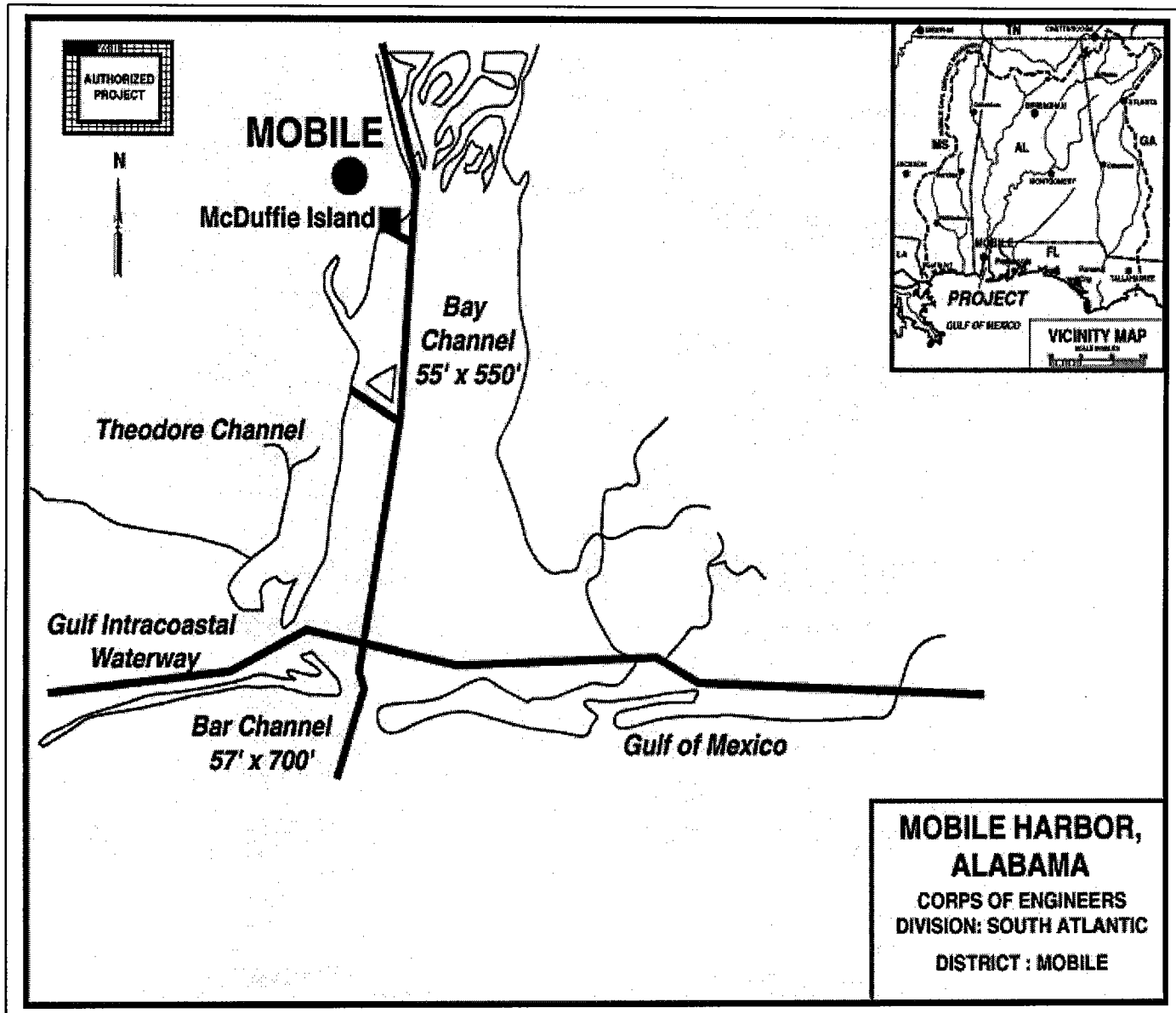
Estimated Appropriation Requirements (COE)		\$1,604,000
Estimated Appropriation Requirements (USCG)		0
Estimated Total Appropriation Requirements		1,604,000
Future Non-Federal Reimbursement		214,000
Estimated Federal Cost (Ultimate)(COE)		1,390,000
Estimated Non-Federal Cost:		2,308,000
Cash Contributions	\$	534,000
Other Costs		1,560,000
Reimbursements		214,000
Total Estimated Project Cost		\$3,698,000

Summarized Financial Data for the TURNING BASIN

Estimated Appropriation Requirements (COE)		\$25,726,000
Estimated Appropriation Requirements (USCG)		0
Estimated Total Appropriation Requirements		25,726,000
Future Non-Federal Reimbursement		3,430,000
Estimated Federal Cost (Ultimate)(COE)		22,296,000
Estimated Non-Federal Cost:		12,004,000
Cash Contributions	\$ 8,574,000	
Other Costs	0	
Reimbursements	3,430,000	
Total Estimated Project Cost		\$34,300,000

Summarized Financial Data for PHASE II (REMAINDER)

Estimated Appropriation Requirements (COE)		\$233,402,000
Estimated Appropriation Requirements (USCG)		3,933,000
Estimated Total Appropriation Requirements		237,335,000
Future Non-Federal Reimbursement		43,834,000
Estimated Federal Cost (Ultimate)(COE)		189,568,000
Estimated Non-Federal Cost:		256,056,000
Cash Contributions	\$212,222,000	
Other Costs	0	
Reimbursements	43,834,000	
Total Estimated Project Cost		\$449,557,000



APPROPRIATION TITLE: Construction, General - Channels and Harbors (Navigation)

PROJECT: Tampa Harbor - Big Bend Channel (Continuing)

LOCATION: The project is located in central Florida on the west coast in the city of Tampa.

DESCRIPTION: The project provides for widening of the existing entrance channel from 200 to 250 feet, enlarging the turning basin, and deepening the 2.2-mile entrance channel from 34 to 41 feet.

AUTHORIZATION: Water Resources Development Act of 1999.

REMAINING BENEFIT-REMAINING COST RATIO: 4.8 to 1 at 7 percent.

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

INITIAL BENEFIT-COST RATIO: 4.2 at 6.375 percent

BASIS OF BENEFIT-COST RATIO: Benefits are included in the Tampa Harbor - Big Bend Channel Feasibility Report and Environmental Assessment completed in September 1996 (Revised September 1997) at April 1998 price level. A Limited Reevaluation Report is underway to update the project benefits and costs to FY 05 levels.

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST	STATUS (1 January 2006)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Appropriation Requirement (COE)	16,145,000		Channels & Canals		
Estimated Appropriation Requirement (USCG)	455,000		Main Channels & Turning Basin	0	Apr 07
Estimated Total Appropriation Requirement	16,600,000		Disposal Area Raising	0	TBD
Future Non-Federal Reimbursement	2,200,000				
Estimated Federal Cost (Ultimate)	14,400,000		Entire Project	0	TBD
Estimated Non-Federal Cost	8,200,000				
Cash Contributions	5,390,000				
Other	610,000				
Reimbursement Navigation	2,200,000				
Total Estimated Project Cost	22,600,000				
Allocations through 30 September 2003	237,650				
Allocation for FY 2004	401,350				
Allocation for FY 2005	277,650				
Conference Allowance for FY 2006	5,000,000				
Allocation for FY 2006	4,950,000	<u>1/</u>			
Allocations through FY 2006	5,866,650	36%			
Allocation Requested for FY 2007	8,500,000	89%			
Scheduled Balance to Complete After FY 2007	1,778,350				
Unscheduled Balance to Complete After FY 2007	0				

1/ Reflects rescission of \$50,000

Division: South Atlantic

District: Jacksonville

Tampa Harbor, Big Bend, FL

6 February 2006

JUSTIFICATION: Tampa Harbor is among the nation's leading exporters of phosphate rock and chemicals. The main Federal ship channel in Tampa Harbor is 43 feet in depth. The Big Bend channel is maintained by local interests to a depth of 34 feet, and connects the Tampa Harbor main ship channel to terminals at Big Bend, a distance of 2.2 miles. The channel supports bulk movements of coal, phosphate rock, and phosphate chemicals at the Big Bend terminals.

Annual Benefits	Amount
Deep Draft Navigation	3,830,000
Total	3,830,000

FISCAL YEAR 2006: Fiscal Year 2006 funds will be used to finalize the Limited Reevaluation report in May, execute the Project Cooperation Agreement in May, and fund the contract for the channel and turning basin work.

FISCAL YEAR 2007: The requested amount will be applied as follows:

Complete channels & turning basin	\$ 7,675,000
Environmental Monitoring	64,000
Planning, Engineering and Design	186,000
Construction management	575,000
Total	\$8,500,000

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 deep draft navigation during construction	5,390,000	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	2,200,000	0
Pay 100% of the costs associated with dredging berthing areas and bulkhead modifications.	610,000	0
Total Non-Federal Cost	8,200,000	0

The non-Federal sponsor is aware of its requirement to make all required payments concurrently with project construction and reimburse and additional 10 percent of construction costs within a period of 30 years following completion of construction. These requirements will be included in the PCA.

STATUS OF LOCAL COOPERATION: The Tampa Port Authority strongly supports this project. The Project Cooperation Agreement is scheduled for execution in May 2006.

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal (Corps) cost estimate of \$16,145,000 is an increase of \$3,843,000 over the last estimate (\$12,302,000) presented to Congress (2006). This change includes the following items:

Item	Amount
Price escalation on construction features	\$ 285,000
Post contract award and other estimating adjustments	3,558,000
Total	\$ 3,843,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Environmental Assessment has been completed and the FONSI was signed September 1996. The draft was prepared August 1994 and the DE Public Notice was issued September 1996.

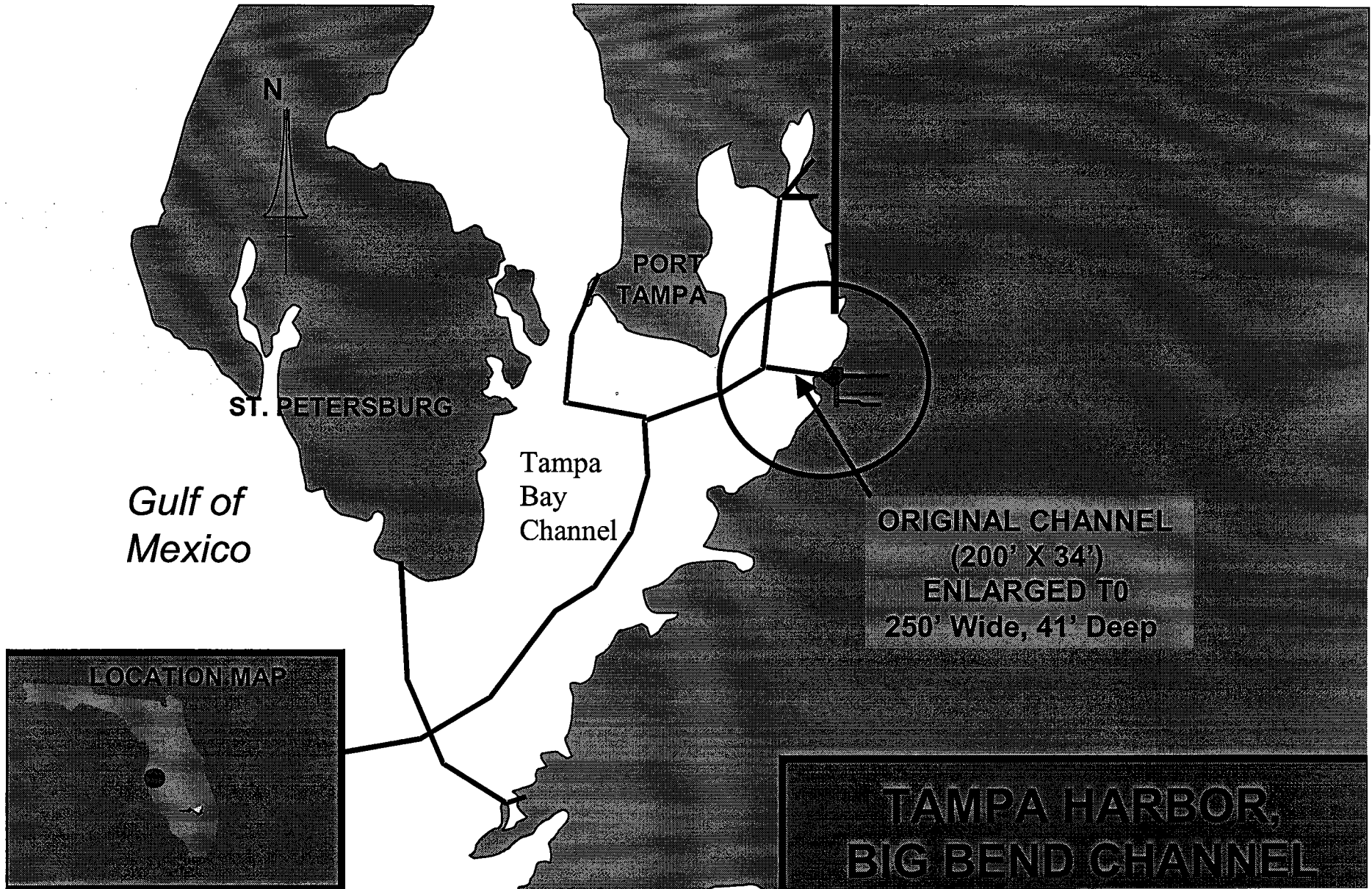
OTHER INFORMATION: Preconstruction Engineering and Design was initiated in September 1997 and is scheduled for completion in May 2006. Project has been delayed one year while completing a Limited Reevaluation Report.

Division: South Atlantic

District: Jacksonville

Tampa Harbor, Big Bend, FL

6 February 2006



+
Division: South Atlantic

District: Jacksonville

Tampa Harbor, Big Bend, FL

6 February 2006

COMMERCIAL NAVIGATION

CONSTRUCTION

SOUTH PACIFIC DIVISION

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.

REMAINING BENEFIT - REMAINING COST RATIO: 5.8 to 1.0 @ 7.

TOTAL BENEFIT - COST RATIO: 8.1 to 1.0 @ 7.

INITIAL BENEFIT - COST RATIO: 8.0 to 1.0 @ 7

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.

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST	STATUS (1 Jan 2006)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Appropriation Requirement (COE)	\$184,600,000		Entire Project	55	To be determined
Estimated Appropriation Requirement (USCG)	300,000				
Estimated Total Appropriation Requirement	184,900,000				
Future Non-Federal Reimbursement	16,800,000				
Estimated Federal Cost (Ultimate)	168,100,000				
Estimated Non-Federal Cost	\$ 156,000,000				
Cash Contribution	\$ 66,500,000				
Other Costs	72,700,000				
Reimbursements	16,800,000				
Total Estimated Project Cost	\$ 324,100,000				
Allocations to 30 September 2003	24,505,000				
Allocations for FY 2004	15,337,000				
Allocations for FY 2005	24,340,000				
Conference Allowance for FY 2006	48,000,000				
Allocation for FY 2006	47,520,000 ^{1/}				
Allocations through FY 2006	111,702,000	61			^{1/} Reflects \$480,000 rescission.
Allocation Requested for FY 2007	43,500,000	84			
Programmed Balance to Complete after FY 2007	\$29,398,000				
Unprogrammed Balance to Complete after FY 2007	0				

PHYSICAL DATA

Channels: Deepen the 4 mile Inner Harbor and 3.4 mile Outer Harbor channels to 50 feet; Widen various locations.

Turning Basins: Widen Inner and Outer Basins and deepen to 50 feet.

Habitat: Create 190 acres of shallow water and sub-tidal habitat.

JUSTIFICATION: The Port of Oakland services about 85 percent of all general cargo moving through the Golden Gate, 95 percent of which is containerized. The existing Federal navigation channel serving Oakland Harbor is inadequate for efficient shipping operations and vessel safety as a result of increased vessel traffic and large containerships. Cargo movement by larger vessels is hampered by the need to load to less than full capacity and to wait for high tides to avoid grounding hazards. Annual tonnage handled by the Port amounted to approximately 16 million tons in 2001. 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. Average annual benefits, all commercial navigation, are estimated at \$187,885,000 based on 1998 prices. Depths of 50 feet are required for users to efficiently call at the Port of Oakland presently and in the future.

FISCAL YEAR 2006: Current year funds will be used to:

Construct Phase 3E	\$11,720,000
Construct Phase 3D	23,000,000
Complete dredging contract Phase 3B/C	1,000,000
Complete Middle Harbor Containment contract Phase 2A	300,000
Construct Inner Harbor Turning Basin contract Phase 1B	7,000,000
Planning, Engineering and Design	1,500,000
Construction Management	3,000,000
Total	\$47,520,000

FISCAL YEAR 2007: The requested amount of \$43,500,000 will be applied as follows:

Complete Construction on Inner Harbor Phase 1B	\$ 1,000,000
Construct Phase 3E	41,000,000
Planning, Engineering and Design	500,000
Construction Management	1,000,000
Total	\$43,500,000

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:

	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.	\$14,300,000	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
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.	51,368,000	\$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.	15,132,000	N/A
Pay 100% of the costs for local service facilities and berthing facilities.	48,400,000	N/A
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 partially reduced by a credit allowed for the value of lands, easements, rights-of-way, relocations, and dredged material disposal areas provided for commercial navigation.	16,800,000	N/A
Total Non-Federal Costs	\$156,000,000	\$694,000

Division: South Pacific

District: San Francisco
6 February 2006

Oakland Harbor, California (50-ft)

Requirements of Local Cooperation (Continued)

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

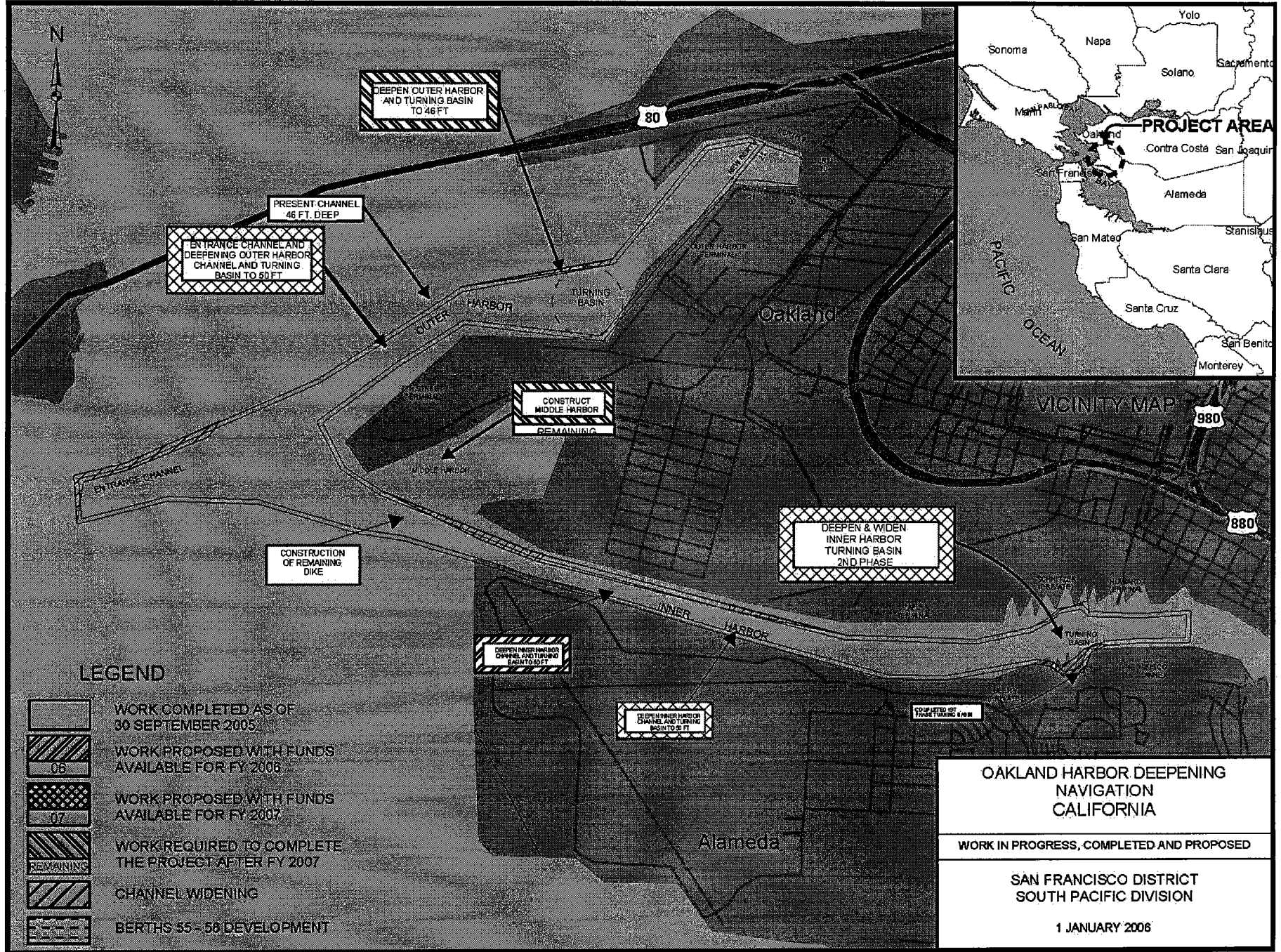
STATUS OF LOCAL COOPERATION: The non-Federal sponsor, the Port of Oakland, contributed full funding for the feasibility study of the 50 feet deepening of the Inner and Outer Harbor, under the authority of Section 203 of the Water Resources Development Act of 1986. The design agreement was executed on 24 March 1999. The Project Cooperation Agreement was executed on 24 May 2001. The current non-Federal cost estimate of \$156,000,000, which includes a cash contribution of \$83,300,000 (including reimbursement to the U.S. Treasury over 30 years) is approximately \$16,000,000 more than the amount reflected in 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 (ultimate) of \$168,100,000 is an increase of \$13,700,000 from the latest estimate (\$154,400,000) presented to Congress (FY 2006). This change includes the following items.

Item	Amount
Price Escalation on Construction Features	\$ 500,000
Post Contract Award and Other Estimating Adjustments (including contingency adjustments)	13,200,000
Total	\$13,700,000

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 2005 to maintain the schedule.



7 FEBRUARY 2006

APPROPRIATION TITLE: Construction, General (Navigation)

PROJECT: Port of Long Beach (Deepening), California (Continuing)

LOCATION: The project is located at the Port of Long Beach on the coast of southern California in San Pedro Bay, approximately 20 miles south of downtown Los Angeles, California

DESCRIPTION: The authorized project consists of deepening the approach channel, main channel and the turning basin to a depth of -76 feet below mean lower low water (MLLW) from the breakwater seaward for a distance of approximately 2 miles. The project has dredged approximately 5 million cubic yards of sediment for the approach channel, 5 million cubic yards for the main channel and 800,000 cubic yards of sediment remaining to dredge in the turning basin.

AUTHORIZATION: Water Resources Development Act of 1986, 1988 and 1996.

REMAINING BENEFIT - REMAINING COST RATIO: 52.8 to 1 at 7 percent

TOTAL BENEFIT-COST RATIO: 6.3 to 1 at 7 percent.

INITIAL BENEFIT-COST RATIO: 6.1 to 1 at 7 percent.

BASIS OF BENEFIT-COST RATIO: Benefits are based on the Chief's Report - Port of Long Beach Deepening Project dated July 1996 at October 1995 price levels.

SUMMARIZED FINANCIAL DATA	ACCUM PCT OF EST FED COST	STATUS (1 JAN 2006)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	\$20,140,000	Entire Project	92	September 2007
Estimated Non-Federal Cost	\$24,600,000			PHYSICAL DATA
Cash Contributions	20,000,000			
Other Cost	4,600,000			
Total Estimated Project Cost	44,740,000			Dredge channel to 76 feet at the following locations:
				Approach Channel 100 December 2000
				Main Channel 100 May 1996
Allocations thru 30 September 2003	\$14,440,000			
Allocations for FY 2004	0			
Allocations for FY 2005	0	Turning Basin	0	uncompleted
Conference Allowance for FY 2006	0			
Allocation for FY 2006	0			Create acres at the following sites:
Allocations through FY 2006	14,440,000	72		Pier J Expansion 40 acres
Allocation Requested for FY 2007	5,700,000	100		
Programmed Balance to Complete after FY 2007	0			

Division: South Pacific

District: Los Angeles
6 February 2006

Port of Long Beach (Deepening), CA

JUSTIFICATION: Port of Long Beach serves the entire Pacific Southwest with goods passing through the port either to or from all 50 states. Major increases in demand for imports of foreign crude oil and other commerce is the driving force behind the need for navigation improvements. From 1990 through 1996, the combined San Pedro Ports inbound containerized cargo grew from 12 million metric tons to approximately 18.5 million metric tons. The Port of Long Beach reported tonnage in 2003 was at 69,195,000 with a five year average of 67,089,000 tons. Increasing the channel depth to 76 feet is expected to accommodate deep crude tankers and other liquid bulk vessels to gain economic scale. Dredged material will be used to create new land for Pier J development. Average annual benefits, all navigation, are \$53,000,000, at October 1995 price levels.

FISCAL YEAR 2006: N/A

FISCAL YEAR 2007: The requested amount will be applied as follows:

Initiate and complete Dredging Contract	\$ 5,200,000
Engineering and Design	200,000
Construction Management	300,000
Total	\$ 5,700,000

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	Payments During Construction and Reimbursements	Annual Operation, Repair, Maintenance, Rehabilitation and Replacement Costs
Provide lands, easements, rights-of-way, and borrow and excavated or dredged material disposal areas.	\$ 60,000	\$
Pay 50 percent of the costs allocated to general navigation facilities during construction and pay 50 percent of the costs of incremental maintenance below 76 feet below mean low water.	20,000,000	\$120,000
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 partially (entirely) reduced by a credit allowed for the value of lands, easements, rights of way, relocations, and dredged or excavated material disposal areas as applicable) provided for commercial navigation.	4,000,000	
Total Non-Federal Costs	\$24,600,000	\$120,000

Division: South Pacific

District: Los Angeles
6 February 2006

Port of Long Beach (Deepening), CA

STATUS OF LOCAL COOPERATION: The feasibility report was completed in September 1995. The Project Cooperation Agreement was executed in July 1998.

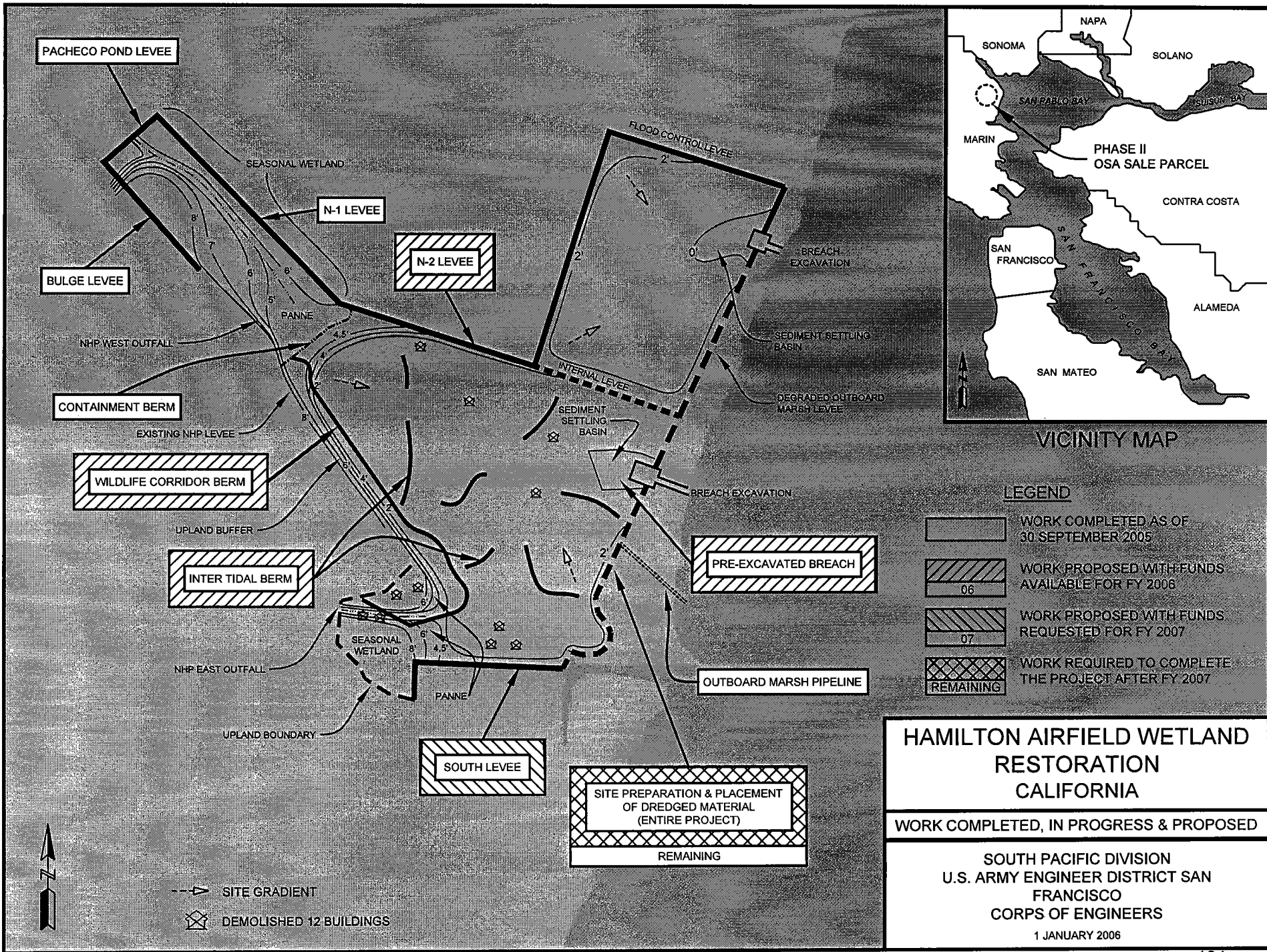
COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$20,140,000 is an increase of \$3,240,000 from the latest estimate presented to Congress (FY 1998) for appropriations. This change includes the following items.

Item	Amount
Price Escalation on Construction Features	\$3,240,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Environmental Impact Statement was completed in September 2000 and the Record of Decision was signed March 1997.

OTHER INFORMATION: Funds to initiate pre-construction, engineering and design were appropriated in FY 1996. Funds to initiate construction were appropriated in FY 1998. The Energy and Water Development Appropriations Act for FY 1988 directs the secretary to credit toward the non-federal share of the cost of the project the cost of construction work carried out by the non-federal interest before the date of the partnership agreement for the project if the Secretary determines the work is integral to the project.

Dredging of the Turning Basin is the last feature required to be completed. The sponsor, Port of Long Beach, request that the Turning Basin dredge material be placed on the top of the Pier S dredge material as surcharge at the Pier J site.



PACHECO POND LEVEE

SEASONAL WETLAND

N-1 LEVEE

N-2 LEVEE

BULGE LEVEE

FLOOD CONTROL LEVEE

PANNE

BREACH EXCAVATION

NHP WEST OUTFALL

SEDIMENT SETTLING BASIN

CONTAINMENT BERM

EXISTING NHP LEVEE

DEGRADED OUTBOARD MARSH LEVEE

WILDLIFE CORRIDOR BERM

INTERNAL LEVEE

SEDIMENT SETTLING BASIN

BREACH EXCAVATION

UPLAND BUFFER

INTER TIDAL BERM

PRE-EXCAVATED BREACH

NHP EAST OUTFALL

SEASONAL WETLAND

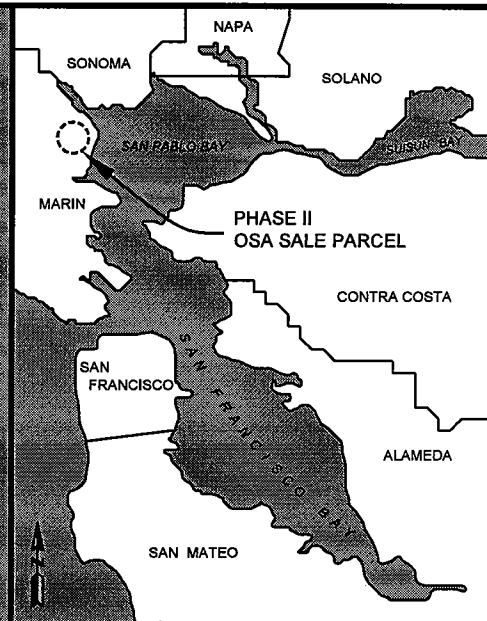
OUTBOARD MARSH PIPELINE

UPLAND BOUNDARY





SOUTH LEVEE


SITE PREPARATION & PLACEMENT OF DREDGED MATERIAL (ENTIRE PROJECT)

REMAINING



LEGEND

-  WORK COMPLETED AS OF 30 SEPTEMBER 2005
-  WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2006
-  WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2007
-  WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2007

-  SITE GRADIENT
-  DEMOLISHED 12 BUILDINGS

CONSTRUCTION

COMMERCIAL NAVIGATION

CONSTRUCTION

SOUTHWESTERN DIVISION

APPROPRIATION TITLE: Construction, General - Channels and Harbors (Navigation)

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 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. Dredged material from the bay will be used for construction of environmental restoration sites to include 4,250 acres of marsh, and 6 acres of Bird Island. 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 deepening and widening of the Houston Ship Channel has been completed and the initial marsh cell creation and bird island construction have been completed. The first maintenance dredging cycles for the reaches within the Houston Ship Channel, the Galveston Channel improvements and the Environmental Restoration features which are construction of future beneficial use cells for maintenance material, remain to be constructed.

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: Galveston Harbor Channel 3.8 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 1.9 to 1 at 7 percent (Authorized Project with Barge Lanes).

INITIAL BENEFIT-COST RATIO: 1.8 to 1 at 7 5/8 percent. (FY 1996)

BASIS OF BENEFIT-COST RATIO: Benefits and costs are from the Limited Reevaluation Report and Supplemental Environmental Statement approved by HQUSACE in May 1996.

SUMMARIZED FINANCIAL DATA			ACCUM. PCT. OF EST FED. COST	PHYSICAL STATUS (1 Jan 2006)	PERCENT COMPLETE	COMPLETION SCHEDULE
Estimated Appropriation Requirement (CoE)		485,338,000		Channel Const.	95 %	To be determined
Programmed Construction	485,338,000			Entire Project	85 %	To be determined
Unprogrammed Construction	0					
Estimated Appropriation Requirement (OFA)		7,190,000		PHYSICAL DATA – Total Project		
Programmed Construction	7,190,000			Channels:		
Unprogrammed Construction	0			Houston Ship Channel – 39.2 miles (complete)		
Estimated Appropriation Requirement		492,529,000		Galveston Channel – 3.8 miles		
Programmed Construction	492,529,000			Galveston Harbor Channel–14.4miles (complete)		
Unprogrammed Construction	0			Barge Lanes – 26 miles (complete)		
Future Non-Federal Reimbursement		33,244,000		Beneficial use of Dredged Material		
Programmed Construction	33,244,000			Marsh – 4,250 acres		
Unprogrammed Construction	0			Bird Island – 6 acres (complete)		
Estimated Federal Cost (Ultimate) (CoE)		459,284,000		Redfish Island – 6 acres (complete)		
Programmed Construction	459,284,000			Offshore Underwater Berm (complete)		
Unprogrammed Construction	0			Mitigation (Oyster Cultch)		
Estimated Non-Federal Cost		170,972,000		Main Channel – 118 acres (complete)		
Programmed Construction	170,972,000			Barge Lanes – 54 acres (complete)		
Cash Contributions	137,061,000					
Other Costs:						
Berthing Facilities	10,363,000					
Lands and Relocations	1,150,000					
Credit	22,398,000					
Unprogrammed Construction	0					
Cash Contributions	0					
Other Costs	0					
Total Estimated Programmed Construction Cost		663,500,000				
Total Estimated Unprogrammed Construction Cost		0				
Total Estimated Project Cost		663,500,000				

Division: Southwestern

District: Galveston

Project: Houston-Galveston
Navigation Channels, Texas

6 February 2006

SUMMARIZED FINANCIAL DATA (Continued)

**ACCUM.
PCT. OF EST
FED. COST**

Allocations to 30 September 2003	218,915,000	
Allocation for FY 2004	47,740,000	
Allocation for FY 2005	27,045,000	
Conference Allowance for FY 2006	26,000,000	
Allocation for FY 2006	25,740,000 ^{1/}	
Allocations through FY 2006	319,440,000	66%
Allocation Requested for FY 2007	43,076,000	75%
Programmed Balance to Complete after FY 2007	122,822,000	
Unprogrammed Balance to Complete after FY 2007	0	

^{1/} Reflects \$260,000 reduction for rescission in accordance with Section 3801 of P.L. 109-148.

JUSTIFICATION: The total project will include environmental restoration (4,250 acres of marsh) and will provide transportation savings from using larger or more efficient vessels, reduction in vessel casualties, and reduction of vessel delays. The average annual benefits for the Houston-Galveston project are \$87,300,000, all commercial navigation, based on October 1994 price levels.

Annual Benefits	Amount
Navigation	\$ 87,300,000
Total	\$ 87,300,000

FISCAL YEAR 2006: Funds in the amount of \$25,740,000 will be used in FY 06 as follows:

Complete Dredging of Upper Bay and Barge Lanes and Lower Bayou Construction contracts	\$ 2,567,000
Construct additional capacity for Spillman Island Placement Area	10,000,000
Construct additional capacity for Peggy Lake Placement Area	2,180,000
Construct additional capacity for a portion of Placement Area 14	3,470,000
Construct South Goat Island Levee	500,000
Construct Ditching and Grass planting at various placement areas	614,000
Construct Redfish Island to Morgan's Point 1 st Maintenance	2,000,000
Initiate Detailed Engineering Reevaluation of Upland Placement Areas for 20-year Capacity	2,200,000
Planning, Engineering and Design to include design of Beltway 8 Placement Area, Sedimentation analysis, and design data for Galveston Channel	1,000,000
Construction Management	1,209,000
Total	\$25,740,000

FISCAL YEAR 2007: Funds in the amount of \$43,076,000 will be used in FY 07 to construct additional ecosystem restoration features for the project, and to construct additional capacity for placement of dredged maintenance material. The ecosystem restoration features consist of constructing new placement areas to accommodate the maintenance material that will be dredged from the bay reach of the channel. These areas will then be used for planting marsh grass which results in the beneficial use of material dredged. The funds provided in FY 07 will be used as follows:

Design and construct additional capacity at placement areas and marsh areas	\$ 28,400,000
Construct Galveston Channel	12,156,000
Planning, Engineering and Design	1,000,000
Construction Management	1,520,000
Total	\$43,076,000

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	Annual Operation, Payments During Construction and Reimbursements	Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, rights-of-way, and borrow and excavated or dredged material disposal areas.	\$ 1,088,000	
Modify or relocate, utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	62,000	
Local service facilities necessary to realize benefits of the general navigation features	10,363,000	
Pay a percentage of the costs allocated to navigation improvements, to mitigate the project's adverse environmental impacts, and to pay a portion of the cost of operation, maintenance, and replacement of the project.	159,459,000	\$604,000
General Navigation Features - Deep Draft	\$82,655,000	
General Navigation Features - Shallow Draft	1,161,000	
Environmental Restoration	30,506,000	
Environmental Restoration - Deferred Const.	45,137,000	
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.	33,244,000	
Total Non-Federal Costs	\$204,216,000	\$604,000

STATUS OF LOCAL COOPERATION: The Project Cooperation Agreement I 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. Negotiations with the City for the remainder of the Galveston Harbor and Channel began in Fiscal Year 1998 but stopped when the City indicated they did not have the funds for construction. Negotiations resumed at the end of Fiscal Year 2004 when the City again expressed a desire to sign the Project Cooperation Agreement, and continued with an expectation of executing the Project Cooperation Agreement last September 2005. However, the City of Galveston has continued to delay their decisions and execution of the Agreement, therefore work on the Galveston Channel has not started. The current anticipated date for executing the Project Cooperation Agreement is March 2007.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal (Corps of Engineers) costs estimate of \$485,338,000 is an increase of \$18,348,000 from the latest estimate (\$466,990,000) presented to Congress (FY 2006). This change includes the following items.

Item	Amount
Price Escalation on Construction Features	3,309,000
Increase in construction costs estimate due to final design of Galveston Channel (Fuel costs and additional levee costs)	\$ 15,039,000
Total	\$ 18,348,000

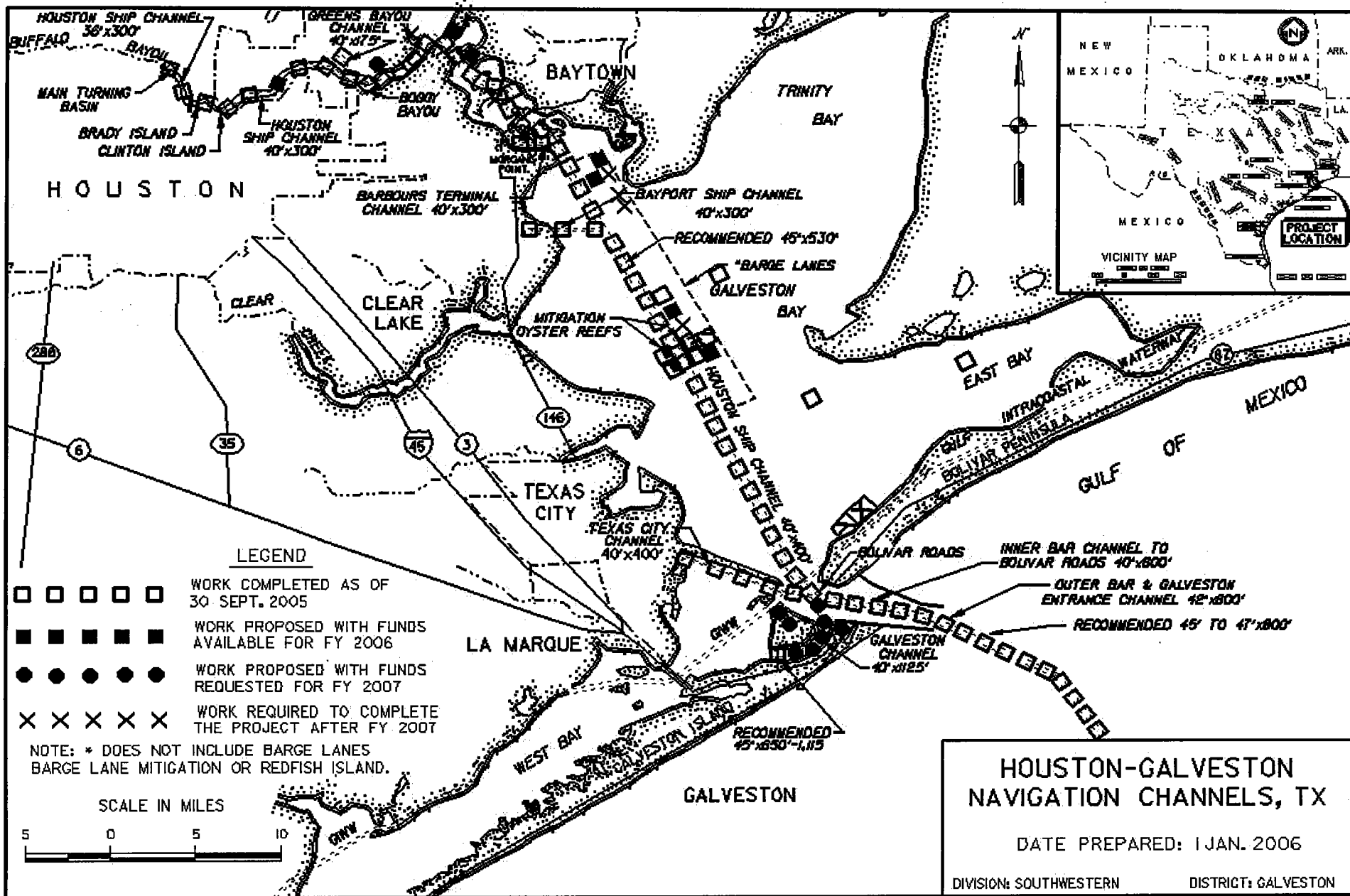
STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Final Environmental Impact Statement (FEIS) was filed with the Environmental Protection Agency in 25 November 1988. A supplement to the FEIS has been prepared and was listed in the Federal Register on 24 November 1995. A Post Authorization Change Report was 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 will be prepared with the supporting documentation sent up with the Project Cooperation Agreement to do 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.

The 45-foot depth of the Houston Ship Channel is complete, but dredging requirements continue for the participation in the first maintenance of the channel reaches in accordance with the Project Cooperation Agreement. Construction of the Environmental Restoration features will continue over the 50-year economic life of the project starting from the completion date of the 45-foot depth, therefore the completion date is 2054. Environmental restoration costs include the costs for additional pumping distance to 3 environmental sites (Atkinson Island, Mid Bay and Bolivar) in the Galveston Bay, construction of the levees for additional capacity at these sites, and creation of the marshes, which include ditching and grass planting.

The upper, mid bay and lower bayou reaches of the Houston Ship Channel have experienced an increase in shoaling, which led to modifications to FY 2005 dredging contracts and depleted the 20-year capacity of the upland dredged material placement areas (Spillman Island and Peggy Lake), as well as the placement areas in the upper part of Galveston Bay (Placement Areas 14 and 15). The depletion of this capacity has led to a change in the scope of work for Fiscal Year 2006. Currently a study is underway to evaluate the upland placement areas capacity and overall needs to re-establish a 20-year capacity at each site, and is scheduled to be completed in the fourth quarter of 2006. This information will also be used to modify the project's five-year programmatic plan, if necessary. Fiscal Year 2006 funds originally intended to start construction of the Galveston Channel, which is now delayed for reasons previously discussed, are being used to increase the capacity of the upland placement areas. The capacity of these placement areas must be increased in order for the Houston Ship Channel to be maintained at the authorized depth.

The Remaining Benefit - Remaining Cost Ratio for the Houston Ship Channel is currently 1.1 % at 7% interest rate because the construction features associated with dredging the placement areas are not complete, therefore constraining the full realization of benefits.



Division: Southwestern

District: Galveston

Project: Houston-Galveston
Navigation Channels, Texas

6 February 2006

APPROPRIATION TITLE: Construction, General – Navigation (Locks and Dams)

PROJECT: Montgomery Point Lock and Dam, AR (Continuing)

LOCATION: This project is located in Desha County, Arkansas on the White River, approximately one half mile from the Mississippi River.

DESCRIPTION: The authorized project provides for the improvement of the Arkansas River and its tributaries by the construction of dams and channels to serve navigation, afford additional flood control, produce hydroelectric power, and provide related benefits, such as recreation and wildlife propagation. The navigation feature of the project consists of a 9-foot navigation channel from the Mississippi River to Catoosa, Oklahoma, 15 miles east of Tulsa. The Montgomery Point Lock and Dam is the first lock and dam on what is now known as the McClellan Kerr Arkansas River Navigation System (MKARNS).

AUTHORIZATION: River and Harbor Act of 1946.

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable because project construction is substantially complete.

TOTAL BENEFIT-COST RATIO: 1.3 to 1 at 7.0 percent

INITIAL BENEFIT-COST RATIO: 1.09 to 1 at 8.25 percent (FY 1997)

BASIS OF BENEFIT-COST RATIO: Benefits are derived from an evaluation report approved in January 1994 at 1 October 1993 price levels.

SUMMARIZED FINANCIAL DATA	ACCUM PCT OF EST FED COST	STATUS (1 Jan 2006)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost (CoE)	\$261,099,000	Entire Project	87	September 2007
Estimated Non-Federal Cost	0			
Total Estimated Project Cost	\$261,099,000			
PHYSICAL DATA				
Allocations to 30 September 2003	\$201,181,000			
Allocation for FY 2004	17,670,000	Channels		9.8 mi, 300" wide, mi 9.8 to 0.0
Allocation for FY 2005	8,738,000	Locks		Single chamber, single lift with miter gates
Conference Allowance for FY 2006	20,000,000			Normal (max.) lift varies from 14' for Lock
Allocation for FY 2006	19,510,000 ^{1/}			No. 4 to 30' for Lock No. 1.
Allocations through FY 2006	247,389,000	Dams	95	Movable, navigable type with "bottom"
Allocation Requested for FY 2007	14,000,000		100	operated gates
Programmed Balance to Complete after FY 2007	0	Land/Damages		858 acres of timber, no improvements
Unprogrammed Balance to Complete after FY 2007	0			

^{1/} Reflects \$200,000 reduction for rescission in accordance with Section 3801 of P.L. 109-148, and \$290,000 reprogrammed.

Division: Southwestern

District: Little Rock

Project: Montgomery Point Lock and Dam, Arkansas

JUSTIFICATION: The McClellan-Kerr Arkansas River Navigation System was conceived and authorized as an overall plan made up of a group of interrelated elements consisting of lakes, multiple-purpose structures, navigation structures, and bank stabilization works, all designed on a coordinated basis to provide for development of optimum benefits. The project opened for navigation from the Mississippi River to the Port of Tulsa at Catoosa, Oklahoma in 1970. The White River Entrance Channel, the first 10 miles of the McClellan-Kerr Arkansas River Navigation Project, is the only reach in the navigation system where the minimum stage is not controlled by a downstream dam, but by the stages of the Mississippi River.

Changes on the Mississippi River have been observed for a number of years and have resulted in low water problems in the White River Entrance Channel. Construction of the Montgomery Point Lock and Dam will greatly increase the reliability of the system as requested by the users. A more reliable system should increase commerce to 35-45 million tons per year. The Lock and Dam officially began Federal operation in February, 2005.

Remaining work is for the construction of a barge, crane, and associated docking facilities is critical in order to maintain the operational capability of the Montgomery Point Lock and Dam. This operating equipment is required to facilitate maintenance of the gates, which maintain navigable depths during low flow periods on the McClellan-Kerr Arkansas River Navigation System. The barge and crane must be used to transport a bulkhead into the river. The bulkhead provides the only means for maintaining the gates as it diverts the river, allowing the gates to be raised, inspected, and repaired in place. The gates will become inoperable over time unless necessary maintenance is performed. Lack of the ability to maintain the gates could potentially result in the loss of the navigation pool and closing of traffic on the McClellan-Kerr Arkansas River Navigation System. The greatest potential hazard is posed by a barge accidentally breaking free and damaging the gates in the raised position. Without a barge and crane to insert stop logs and facilitate repairs, the system would be off line for an extended period of time, adversely affecting multiple users and severely impacting the economy of the nation. Transportation costs would increase for items such as steel, fertilizer, chemicals, sand, gravel, wheat, soybeans and coal. Military transportation along the system would also be affected.

The average annual benefits, based on October 1993 price levels, are as follows:

Annual Benefits	Amount
Navigation	\$20,337,000
Area Redevelopment	700,000
Total	\$21,037,000

FISCAL YEAR 2006: The requested amount of \$19,800 will be applied as follows:

Complete Construction Lock and Dam Contract	\$ 890,000
Acquire Crane & Crane Barge	13,252,000
Initiate and Complete Tow Haulage	1,800,000
Initiate and Complete Boat Dock at Norrell	1,680,000
Initiate and Complete Facility Modifications	620,000
Planning, Engineering, and Design	343,000
Construction Management	925,000
Total	\$19,510,000

FISCALYEAR 2007: The requested amount will be applied to complete construction of the equipment and facilities required to maintain the project. The construction of a barge, crane, and associated docking facilities is critical in order to maintain the operational capability of the Montgomery Point Lock and Dam. This operating equipment is required to facilitate maintenance of the gates, which maintain navigable depths during low flow periods on the McClellan-Kerr Arkansas River Navigation System. The barge and crane must be used to transport a bulkhead into the river. The bulkhead provides the only means for maintaining the gates as it diverts the river, allowing the gates to be raised, inspected, and repaired in place. The gates will become inoperable over time unless necessary maintenance is performed. Lack of the ability to maintain the gates could potentially result in the loss of the navigation pool and closing of traffic on the McClellan-Kerr Arkansas River Navigation System. The requested amount of \$14,000,000 will be applied as follows:

Construct Crane and Crane Barge	\$ 10,254,000
Planning, Engineering and Design	1,935,000
Construction Management	1,811,000
Total	\$14,000,000

NON-FEDERAL COST: None.

STATUS OF LOCAL COOPERATION: Congress has determined that the Inland Waterways Trust Fund will not be used. There are no other cost sharing or repayment requirements applicable to the project.

COMPARISON OF FEDERAL (CORPS OF ENGINEERS) COST ESTIMATES: The current Federal cost estimate of \$261,099,000 is a decrease of \$901,000 from the latest estimate (\$262,000,000) presented to Congress (FY 2005). The change includes the following items:

Item	Amount
Post Contract Award and Other Estimating Adjustments	\$ (-) 901,000
Total	\$ (-) 901,000

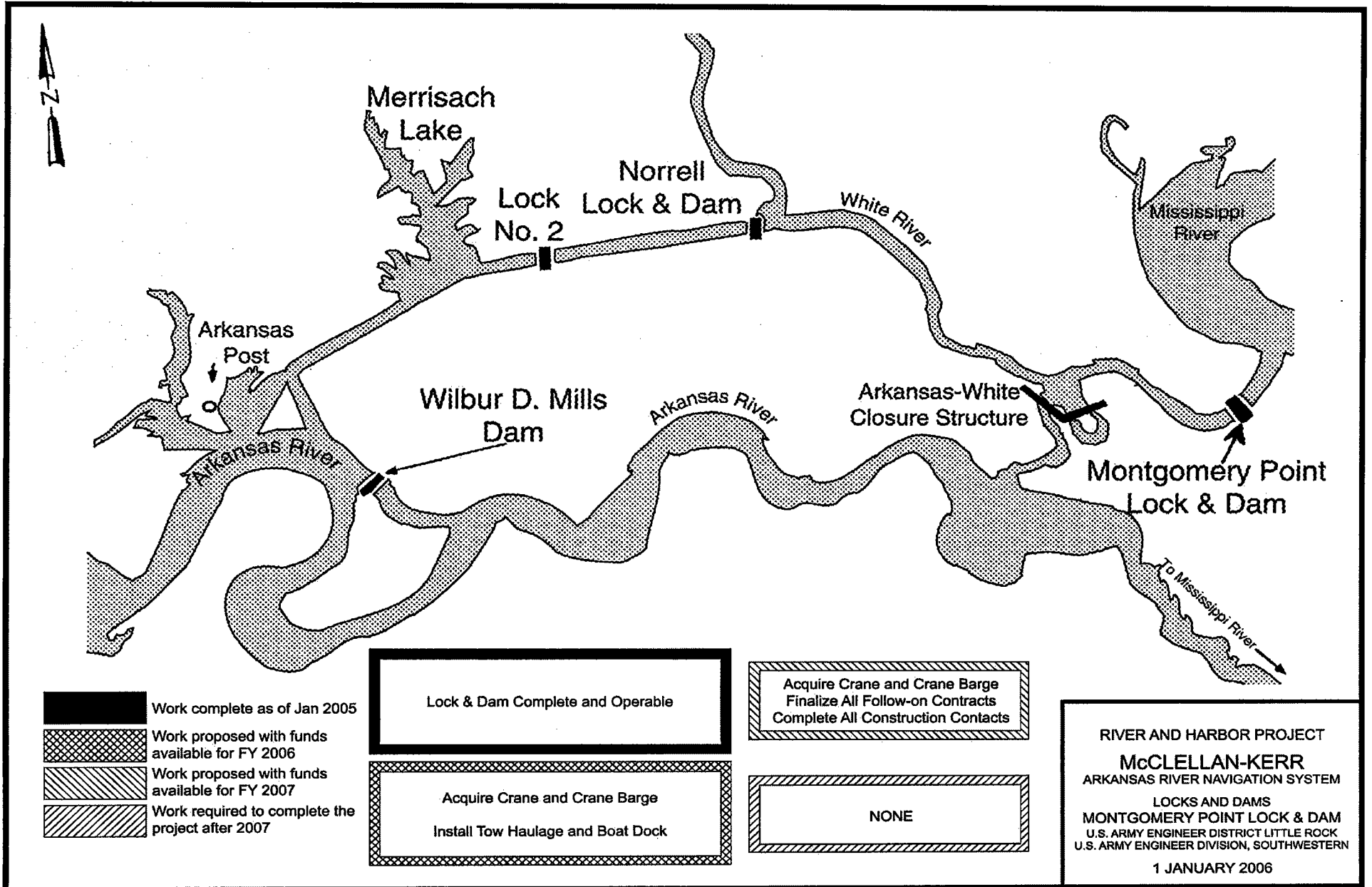
Division: Southwestern

District: Little Rock

Project: Montgomery Point Lock and Dam, Arkansas

STATUS OF ENVIRONMENTAL IMPACT STATEMENT COMPLIANCE: The overall navigation system is essentially complete and in operation. The Final Operating and Maintenance Environmental Impact Statement for the McClellan-Kerr Arkansas River Navigation System (MKARNS) in the Little Rock District was filed with the Council on Environmental Quality on 6 March 1975. The final Environmental Impact Statement for Tulsa District was filed with the Council on Environmental Quality on 28 July 1975. The final Environmental Impact Statement for the Montgomery Point Lock and Dam was filed with the Environmental Protection Agency on 28 June 1991.

OTHER INFORMATION: The McClellan-Kerr project was authorized by the River and Harbor Act of 1946 and it has been determined that the Montgomery Point Lock and Dam was included in the authorization. The real estate estimate includes purchase of 703 acres that will be used to mitigate construction of the Montgomery Point Lock and Dam. Acquisition of land for the lock and dam was completed in FY 1996. The construction contract for the lock and dam was awarded in July 1997.



Division: Southwestern

District: Little Rock

Project: Montgomery Point Lock and Dam, Arkansas

6 February 2006

149

OPERATION AND MAINTENANCE

**FY 2007 OPERATION AND MAINTENANCE
Commercial Navigation**

	Total Operation	Total Maintenance	Total
Region 01 New England	10,452,000	7,059,000	17,511,000
Region 02 Mid-Atlantic	10,102,000	110,609,000	120,711,000
Region 03 South Atlantic-Gulf	30,283,000	149,794,000	180,077,000
Region 04 Great Lakes	15,739,000	70,010,000	85,749,000
Region 05 Ohio	67,570,000	64,702,000	132,272,000
Region 06 Tennessee	5,674,000	14,886,000	20,560,000
Region 07 Upper Mississippi	68,952,000	126,932,000	195,884,000
Region 08 Lower Mississippi	30,121,000	85,966,000	116,087,000
Region 09 Souris-Red-Rainy	21,000	0	21,000
Region 10 Missouri	5,707,000	71,569,000	77,276,000
Region 11 Arkansas-White-Red	25,246,000	18,544,000	43,790,000
Region 12 Texas-Gulf	4,085,000	77,989,000	82,074,000
Region 17 Pacific Northwest	20,805,000	78,555,000	99,360,000
Region 18 California	4,831,000	45,222,000	50,053,000
Region 19 Alaska	474,000	19,808,000	20,282,000
Region 20 Hawaii	440,000	1,105,000	1,545,000
Region 21 Caribbean	0	4,000,000	4,000,000
Total Commercial Navigation	300,502,000	946,750,000	1,247,252,000

REMAINING ITEMS

COMMERCIAL NAVIGATION

REMAINING ITEMS

OPERATION AND MAINTENANCE

APPROPRIATION TITLE: Construction, General, FY 2007

(II) Projects not Specifically Authorized by Congress (Section 107, PL 86-645, as amended)

Allocation FY 2006 \$11,880,000 Tentative Allocation FY 2007 \$845,000

GENERAL: Section 107 of the River and Harbor Act of 1960 (PL 86-645), as amended, authorizes up to \$35,000,000 annually for construction of navigation projects where such construction is not already specifically authorized by Congress. Projects are designed to provide the same complete navigation project that would be provided under regular authorization procedures. Each project selected must be economically justified and complete within itself. Federal cost participation cannot exceed \$4,000,000 per project.

PROPOSED ACTIVITIES FOR FY 2007: The \$845,000 requested for Fiscal Year 2007 is to continue the Section 107 program of development and construction of navigation projects at locations throughout the Nation. Proposed allocations to specific projects are as follows. These projects were specifically identified in the Conference Report for FY2006, and are continuing the same phase into FY 2007.

CONTINUING AUTHORITIES PROGRAM		
SECTION 107		
Name	Phase	Amount (\$000)
Kahoolawe Small Boat Basin, HI	FEA	245
Mackinac Isle, MI	FEA	75
North Kohala Nav Imp, HI	FEA	320
Northern Michigan College, MI	FEA	205
TOTAL		845

COMMERCIAL NAVIGATION

REMAINING ITEMS

OPERATION AND MAINTENANCE

Aquatic Nuisance Control Research

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost of Continuing Program	\$3,500,000
Appropriation for FY 2006	615,000
Allocation Requested for FY 2007	690,000
Increase of FY 2007 from FY 2006	75,000

AUTHORIZATION: The Nonindigenous Aquatic Nuisance Prevention and Control Act of 1990 (PL 101-646).

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, which can impact operations and maintenance on Corps' facilities, as well as threaten valued natural resources. Zebra mussels alone cost the public over \$1B 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. Prevention methodology focusing on dispersal barrier technology will be investigated. The development of strategies to apply control methods involves engineering design, operations, and maintenance of facilities and structures. 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. Methods to reduce invasive species impacts to threatened and endangered species and restore natural habitat will be investigated. Due to the introduction of the Northern Snakehead Fish and West Nile Virus, the Corps has experienced a significant increase in the number of field assistance requests at our operating projects. Numerous dredged material disposal areas in the Atlantic, Gulf coast and Great Lakes region have mosquito abatement programs. Due to the introduction of the West Nile Virus, local communities want greater assurances that mosquito populations at our disposal sites are controlled to the maximum extent practicable. Following introduction of the Northern Snakehead Fish, a number of Corps reservoir projects have had to take interdiction measures to prevent their introduction.

PROPOSED ACTIVITIES FOR FY 2007:

1. Provide a Risk-based assessment tool to guide critical aspects of ANS management, i.e., early spread, prevention, economic and ecological impacts, human health and eco-terrorism
2. Provide strategic guidance for management and control of silver and bighead carp in large river systems
3. Provide guidance on the efficacy of using barriers to restrict fish movement on navigable waterways
4. Provide control methods for aquatic nuisance species causing Avian Vacuolar Myelinopathy and bald eagle deaths on Corps reservoirs
5. Provide best management practices for prevention and control of armored suckermouth catfish in lakes/rivers/streams in Florida, Texas, and Hawaii.
6. Provide guidance for the control of red tides based on water quality studies from the Caloosahatchee River, Florida

ACCOMPLISHMENTS IN FY2006:

1. Develop ANS decision-making technologies for threat, early detection, monitoring strategies, management protocols, and exclusion protocols.
2. Evaluate the effectiveness of electrical barriers on fish containment.
3. Develop long-term management and control strategies for silver and bighead carp in big river field studies
4. Develop environmentally compatible solutions for the control of armored suckermouth catfish
5. Examine the causal agent of Avian Vacuolar Myelinopathy (AVM) blamed for numerous bald eagle deaths on Corps reservoirs
6. Evaluate water quality data from the Caloosahatchee River for possible links between Corps discharge rates and red-tide blooms

Asset Management and Facilities Equipment Maintenance

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost of Continuing Program	\$ 4,000,000
Appropriation for FY 2006	2,500,000 1/
Allocation Requested for FY 2007	4,000,000
Increase of FY 2007 Over FY 2006	1,500,000

1/ Centrally funded activity in Fiscal Year 2006.

AUTHORIZATION: EO13327 and DOD memorandum, 10 July 1995, selecting the Equipment Maintenance System (FEMS) as a Department of Defense migratory Computerized Maintenance Management System (CMMS).

JUSTIFICATION: Facilities and Equipment Maintenance System (FEMS) is a Department of Defense migratory Computerized Maintenance Management System (CMMS). The Joint Logistics Systems Center (JLSC) developed the system to meet the needs of DoD maintenance organizations. This system was designated as a DoD migratory system in 1995. FEM is the Corps tailored version of MAXIMO Enterprise Base Systems (MRO Software, Inc.), which is a Commercial-Off-The-Shelf-System (COTS) package. FEM is deployed at the Corps' two consolidated data processing centers, and integrates O&M business processes into a cost-effective asset management program. It supports and consolidates functions within each O&M business line providing the capability to track life cycle costs of all assets. FEM is being deployed in FY05/FY06 within the Northwest Division. Development is ongoing to meet the requirements of E.O.13327 for asset management and to update the COTS product to web-based applications.

PROPOSED ACTIVITIES FOR FY 2007. FEM will be deployed in 4 MSCs with a focus on O&M business line champions and best business processes. Resolution of procurement, inventory and timekeeping interface requirements with CEFMS and other corporate legacy systems will be ongoing. Planning for FY08 deployment to the residual FOAs. Reconfiguration to web based application. USACE Asset Management Plan will be revised to comply with OMB requirements. Inventory data will be compiled to meet FRPC reporting requirements. Ongoing development of performance metrics to be accomplished.

ACCOMPLISHMENTS IN FY2006:

1. Completed FEM deployment in NWD, LRD, MVD
2. Initiated reconfiguration to web based applications.
3. Completed draft AMP in collaboration with OMB
4. Completed real property inventory to meet FRPC requirements
5. Stood-up corporate asset management PDT

Beneficial Uses of Dredged Material (Section 204/207/933)

SUMMARIZED FINANCIAL DATA:

Appropriation for FY 2006	4,950,000 1/
Allocation Requested for FY 2007	1,500,000
Decrease of FY 2007 from FY 2006	3,450,000

1/ Funds in the amount of \$4,950,000 were appropriated in FY 2006 under the Construction account for this work.

AUTHORIZATION: Section 204 of the Water Resources Development Act of 1992 P.L. 102-580, Section 207 of P.L. 102-580, and Section 145 of the Water Resources Development Act of 1976 (Public Law 94-587), as amended by section 933 of Public Law 99-662, section 35 of Public Law 100-676, Section 207 of Public Law 102-580, Section 217 of Public Law 106-53, and Section 111 of Public Law 106-541.

JUSTIFICATION: Section 204 of the Water Resources Development Act of 1992 (Public Law 102-580) authorizes the Secretary of the Army to carry out projects for the protection, restoration, and creation of aquatic and ecologically related habitats, including wetlands, in connection with dredging for construction, operation, or maintenance by the Secretary of an authorized navigation project. Annual appropriations not to exceed \$15,000,000 are authorized. Section 207 of Public Law 104-303 modified section 204 by authorizing disposal in any manner for which the environmental benefits outweigh the added costs. Costs allocable to the habitat protection, restoration, or creation project are limited to the costs that are in excess of the costs necessary to carry out the dredging for the authorized navigation project. Non-Federal interests are required to share in a minimum of 25 percent of the cost of each project including the provision of all required lands, easements, rights-of-way and relocations with the value of these contributions included in the 25 percent non-Federal share of the project and to pay 100 percent of the operation, maintenance, and replacement and rehabilitation cost of the wetland or other aquatic habitat area. The costs of the habitat protection, restoration or creation project are limited to costs which are in excess of those costs necessary to carry out the dredging for the authorized navigation project.

Section 145, as amended, authorizes the Secretary of the Army, upon the request of the affected state, to place dredged material from Federal navigation projects on adjacent beaches if the state or a political subdivision of the state agrees to pay 35 percent of the incremental costs of such placement over the alternative least-cost, environmentally acceptable method of disposal. Policy for beach nourishment with dredged material limits Federal participation in such projects to one-time nourishment at each site.

PROPOSED ACTIVITIES FOR FY 2007: Funds will be used to continue a cost shared program for the protection, restoration and creation of aquatic and ecologically related habitats, including wetlands. Projects to be carried out using FY 2007 funds include Dauphin Island Parkway, AL, Morehead City Harbor, NC.

ACCOMPLISHMENTS IN FY 2006: Funds are being used to continue beneficial uses of dredged material efforts.

Coastal Inlets Research Program

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost of Continuing Program	\$3,000,000
Appropriation for FY 2006	2,206,000
Allocation Requested for FY 2007	2,475,000
Increase of FY 2007 from FY 2006	269,000

AUTHORIZATION: This effort is necessary to provide quantitative predictive tools and data for reducing the cost of dredging of Federal navigation projects and for supporting national security efforts to protect waterways and ports.

JUSTIFICATION: The Corps will expend an estimated \$8 to \$10 billion during the next 25 years at the more than 150 coastal inlets with existing Federal navigation projects to maintain, modify, and create navigation channels and structures, and to mitigate damages to adjacent beaches. Many inlet navigation structures are more than a century old, have degraded, and no longer perform as designed. In addition, the national "2020" plan calls for deeper and wider channels to accommodate the next class of vessels, bringing great uncertainty in prediction of maintenance requirements. Political, engineering, and demographic factors may increase costs. Public sensitivity to current maintenance practices, where dredged material is placed in offshore disposal areas, may result in requirements for more nearshore placement of maintenance materials to benefit adjacent beaches. Inlets are the primary conduits for the transport of environmental constituents between bays, estuaries, and the open ocean, and the Corps may be constrained from performing present activities unless it can make accurate predictions of inlet response, and thus environmental response, to such activities. Reliable predictive modeling of inlet hydrodynamics and sediment transport will aid the Corps in assessing national priorities such as fate of contaminants and mines introduced in and around waterways and port entrances. This technology is being transferred to Corps Districts and non-federal organizations to rapidly apply at the local level.

The Coastal Inlets Research Program (CIRP) is a continuing program to increase Corps capabilities to cost-effectively design and maintain the more than 150 inlet projects that comprise the bulk of coastal operations and maintenance (O&M) expenditures. Because of their complex nature, the behavior of inlets is poorly understood. As a consequence, the Corps spends more of its O&M budget than necessary to maintain inlet projects. The CIRP investigates functional aspects of inlets such as their short- and long-term behavior and their response to waves, tides, currents, and engineered changes, given their geologic structure on all coasts of the United States. As inlet behavior becomes better understood, sophisticated tools for management of inlets for navigation projects, such as models and empirical relationships, will become available. These new tools will lead to more efficient, cost-effective designs for reliable channels and low-maintenance jetties that will reduce O&M requirements and, consequently, costs. This predictive technology can assess threats and plan actions in response to threats introduced in our inlets, coastal waterways, and ports.

PROPOSED ACTIVITIES FOR FY 2007:

1. Transfer coastal inlet navigation database technology to Corps and Industry via national workshops. This searchable database served by e-Coastal includes O&M and process information, as well as navigation structure history linked by location, in two tiers: (a) O&M activities,

channel and adjacent beach response, inlet sediment budgets, and lessons learned; and (b) climatological wave and current forcing data, bathymetric surveys, and structure condition history for Corps critical coastal inlet infrastructure.

2. Demonstrate new fluid-structure interaction technology at three projects to determine future O&M cost savings. The technology predicts a) estimate of runup and overtopping of coastal navigation defense structures, b) wave impact forces, c) scouring/instability of structural foundations, and d) ship transit risk factors for the waterborne commerce and trade into the Nations' ports/harbors via channels and waterways.
3. Test the Inlet Modeling System (IMS)-M2/3D predictive technology for nearshore berm design in developing least-cost and environmentally sustainable manner. The objective is to provide predictions to conduct least-cost analyses to demonstrate efficient bypassing of dredged material through nearshore placement.
4. Develop design guidance, nomograms, and other engineering information for optimizing navigation channel design to predict and minimize maintenance requirements and bypassing strategy, based on numerous IMS-M2D morphology change predictions for a wide range of inlet jetty configurations and channel widths, depths, and lengths.
5. Apply the Asset Management Decision Tool in hindcast mode to compare predictions to how funds were actually distributed. This test will provide critical evaluation and identify shortcomings in the methodology. The Asset Management Decision Tool supports funding decisions to provide rational assessment of repair and maintenance priorities for the Corps' critical coastal navigation infrastructure.
6. Improve modeling of sediment transport and morphology change in inlet, estuarine, and bay systems by incorporating environmental variables such as salinity, temperature, precipitation, and evaporation in the regional Inlet Modeling System-Advanced CIRCulation model (IMS-ADCIRC).
7. Transfer technology for modeling and designing solutions for the critically eroding region down drift of inlets through national Corps-Industry workshops. This isolated region is often nourished with dredged material, which is then rapidly eroded (likely returning back into the navigation channel, increasing future dredging costs). The GENESIS-T model was improved based on field analysis and physical modeling to predict shoreline change due to wave and tidal sediment transport, as well as beach response to structures (e.g., T-groins) in this region.
8. Port and redevelop previous generation shoreline analysis (BeachTools) and inlet morphology analysis software (InletGIS) to support current GIS platforms. New software will feature state-of-the-art analysis algorithms that facilitate rapid and accurate analysis of shoreline change and inlet morphology change.
9. Develop a comprehensive geomorphologic model of stabilized coastal inlet morphology. Describe and quantify scales of change for inlet shoals, adjacent shorelines, nearshore bathymetry, and navigation channel and shoaling through the long-term evolution of a stabilized inlet. Model will assist Districts in managing coastal inlets and mitigation in the littoral zone.

ACCOMPLISHMENTS IN FY 2006:

1. Applied new version of IMS-ADCIRC to three Federal coastal inlets with persistent O&M problems (excessive cost). IMS-ADCIRC has improved prediction of sediment transport, morphology change, flows near structures and navigation channels, as well as new visualization tools for sediment particle tracking.
2. Reduced desk-top PC (and high-performance computing, if desired) simulation time for IMS-ADCIRC by parallelizing the code.
3. Implemented swash zone processes and shoreline change algorithms in IMS-M2D to simulate morphology change at beaches adjacent to inlets. Also implemented an Advection-Diffusion sediment transport formulation to improve accuracy of simulation of channel infilling.
4. Developed a new wave-structure interaction numerical model that decreases study time and cost by elimination of reliance on physical models.
5. Extended runup estimation equations based on wave momentum flux to include impermeable rock revetment structures. This allows an accurate, uniform methodology for runup estimation on beaches to steep rock structures.
6. Developed new design guidance to reduce dike construction costs. This physical model experiment series was initiated by the New Orleans District, who had a current-deflection dike at the mouth of Southwest Pass, Mississippi River, that required yearly repairs due to storm damage. The tests identified the loading for the new dike, and the CIRP extended the experiment series to develop general guidance for design of dikes under wave and current forcing.
7. Initiated application of CIRP models and decision-support tools at four sites to (a) validate CIRP technology and (b) develop solutions to reduce O&M costs. Tools were directed towards improving O&M practices (e.g., channel shoaling, dredging, deepening, realignment; structure modifications; adjacent beach nourishment; dredging placement, use of weirs and deposition basins, and ebb and flood shoal mining), as well as developing guidance for O&M activities with applications beyond the site studied.
8. Developed guidance on jetty and beach interaction, with focus on natural sand bypassing, by operation of IMS-M2/3D predictive technology.
9. Refined the Inlet Reservoir Model for long-term prediction of inlet geomorphology and natural sand bypassing to include time-dependent wave and sediment transport forcing, validating at Ocean City Inlet, MD.

10. Upgraded the Sediment Budget Analysis System (SBAS) software to enhance functionality and user support. Changes allow rapid evaluation of sediment budget alternatives, improved data entry, and expanded options for force balancing sediment budgets. These changes facilitate formulization of comprehensive sediment budgets while reducing user time.
11. Developed guidance to District offices on methodology and theory for evaluating the down-drift shoreline impacts of stabilized coastal inlets in a regional context. Guidance focused on sediment budget formulization and theory on assessing Federal responsibility.
12. Completed physical model study of jetty spurs to aid in their design to reduce navigation channel shoaling. Spurs on the outside (beachside) of jetties have strong potential to reduce channel shoaling from sediment introduced from local beaches. As a corollary, spurs help to maintain sediment in the littoral zone and reduce beach erosion.
13. Updated web-based tutorial and handbook on coastal inlets called "Inlets Online" that addresses needs from the professional engineering and science level to college and high school education. Aerial photograph collection includes historic (from 1930's) to most recently acquired aerial photography around the Corps, as well as guidance for analyzing and interpreting aerial photographs.
14. Supported Corps Districts in addressing concerns on national applicability at specific inlets. These included analysis of channel infilling at Gulfport, AL; Galveston Entrance Channel, TX; long-term simulations of natural sand bypassing at Shinnecock Inlet, NY; modeling of wave, current, and sediment transport in the Chesapeake Bay; strategies to reduce excessive infilling of upper Matagorda Ship Channel, TX; and loading on a current-deflection dike at the mouth of Southwest Pass, Mississippi River.

Dredge Wheeler Ready Reserve

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost of Continuing Program	\$8,000,000
Allocation for FY 2006	7,920,000
Allocation Requested for FY 2007	8,000,000
Increase of FY 2007 over FY 2006	80,000

AUTHORIZATION: Section 237 of the Water Resources Development Act of 1996 (WRDA 96) 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 for operation of the WHEELER had been reimbursed from project funds from the Operation and Maintenance, General appropriation, and subsequently charged to the Harbor Maintenance Trust Fund account as eligible navigation costs subject to reimbursement. In FY 1998, the WHEELER was placed in a ready reserve status as required by the above referenced section of WRDA 96.

PROPOSED ACTIVITIES FOR FY 2007: The hopper dredge WHEELER, will remain in ready reserve status, and will be required to be able to perform emergency dredging work, but will not be assigned any scheduled hopper dredging work. 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 WHEELER was kept at the dock, with sufficient crew to respond to any unforeseen requirement within 72 hours and to work for approximately three 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. The WHEELER performed approximately 60 days of training during the year. In every year but one, since being placed in ready reserve status, the WHEELER was called out to perform urgent dredging to assist industry dredges in restoring navigation channels and waterways.

Dredged Material Disposal Facilities Program

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost of Continuing Program	\$18,000,000
Appropriation for FY 2006 1/	8,712,000 1/
Allocation Requested for FY 2007	18,000,000
Increase of FY 2007 from FY 2006	9,288,000

1/ Funds in the amount of \$8,712,000 were appropriated in FY 2006 under Construction for this work.

AUTHORIZATION: Section 101 of the Water Resources Development Act of 1986 (WRDA 86) (Public Law 99-662) as amended by Section 201 of the Water Resources Development Act of 1996 (WRDA 96)(Public Law 104-303).

JUSTIFICATION: Section 101 of the Water Resources Development Act of 1986 (WRDA 86)(Public Law 99-662) as amended by Section 201 of the Water Resources Development Act of 1996 (WRDA 96)(Public Law 104-303) established consistent cost-sharing for construction of dredged material disposal facilities associated with Federal navigation projects, including disposal facilities for Federal project maintenance. The costs of constructing land-based and aquatic dredged material disposal facilities associated with the construction, operation, and maintenance of all Federal navigation harbors and inland harbors shall be considered costs of constructing a general navigation feature of the project and shall be shared in accordance with the procedures set forth in section 101(a) of WRDA 86.

PROPOSED ACTIVITIES FOR FY 2007: Funds will be used for the Federal share of construction of applicable dredged material disposal facilities required for maintenance of existing projects, reimbursement of non-Federal sponsors for dredged material disposal facilities constructed by them in advance of Federal appropriations for such purpose, or fee payments to private entities for the use of privately owned dredged material disposal facilities if such a facility is the least cost alternative to dispose of dredged material. All costs for dredged material disposal facilities associated with project construction and maintenance will be reimbursed from the Harbor Maintenance Trust Fund.

ACCOMPLISHMENTS IN FY 2006: .: Funds are being used for the Federal share of construction of applicable dredged material disposal facilities required for maintenance of existing projects, reimbursement of non-Federal sponsors for dredged material disposal facilities constructed by them in advance of Federal appropriations for such purpose, or fee payments to private entities for the use of privately owned dredged material disposal facilities if such a facility is the least cost alternative to dispose of dredged material. All costs for dredged material disposal facilities associated with project construction and maintenance will be reimbursed from the Harbor Maintenance Trust Fund. Fiscal Year 2006 efforts include Upper Saginaw River, MI, Savannah Harbor Disposal Areas, GA and SC, and Chocolate Bayou, TX.

Dredging Data and Lock Performance Monitoring System

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost for Continuing Program	\$1,595,000
Appropriation for FY 2006	946,000
Allocation Requested for FY 2007	1,062,000
Increase of FY 2007 over FY 2006	116,000

AUTHORIZATION: These efforts are necessary to provide dredging and lock data for efficient management of Congressionally authorized navigation projects, 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; 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 commodities served, 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 CEEIS 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 \$800,000 of the overall OMBIL-Plus costs.

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, and commodity origins-destinations and other cargo data is needed to support the Corps maintenance dredging program. Tasks include updating of the world fleet composition and forecasts; analysis of current and projected commodity and traffic flows and trade patterns; and the collection and associated analysis of dredging information and performance data in support of CW navigation decisions.

PROPOSED ACTIVITIES FOR FY 2007: Continue on-going Lock and Dredging information system operations, maintenance, essential upgrades, security and user support; develop additional data warehouse reports to support the data requirements of the performance based budget process, and work with the National Lock Data "Product Delivery Team" overseeing Corps lock data requirements. Update forecasts for world fleet, commodities and trade; develop voyage ports-of-call information for containerships; assess vessels transiting U.S. ports; and physically model vessel motion to assess and minimize future dredging requirements. Provide dredging and lock analytical, technical, and data support for Corps

offices. Provide lock performance measures to monitor lock operations performed by the MEO or contractor as the result of the competitive sourcing of the O&M of Locks and Dams activity.

ACCOMPLISHMENTS IN PRIOR YEARS: Performed operations, maintenance, system upgrades, security and user support for dredging and lock data systems. Finalized the lock data warehouse with all lock data available from a central source. Provided critical data for navigation performance measures, 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. The Dredging Needs Database was updated. 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.

Dredging Operations and Environmental Research (DOER) Program

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost of Continuing Program	\$7,000,000
Appropriation for FY 2006	5,417,000
Allocation Requested for FY 2007	6,080,000
Increase of FY 2007 from FY 2006	663,000

AUTHORIZATION: The Water Resources Development Acts of 1986, 1988, 1990, 1992, 1996, and 1999 contained provisions addressing contaminated sediments in navigation channels, dredged material management, and beneficial uses that mandates a continuing need for innovative and enhanced technology.

JUSTIFICATION: The last comprehensive research effort on contaminated sediments and dredged material management was completed in 1978 under PL 91-611. More recent Water Resources Development Acts contained provisions addressing contaminated sediments in navigation channels, dredged material management, and beneficial uses that mandate a continuing need for innovative and enhanced 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 approaching capacity with few opportunities for new facilities. Aquatic placement is under increased scrutiny due to habitat degradation concerns and expanded listings of aquatic threatened and endangered species such that this economically preferable alternative is contested by increased litigation and substantially higher costs. Environmental standards and controls for all dredged material placement alternatives are increasingly restrictive and continue to grow in number. Risk-based assessments and management have gained acceptance; unfortunately the Corps' corporate technology base is diminishing and must be maintained. 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 keep costs within budget constraints.

The DOER Program is an integral and highly beneficial component of the Corps navigation dredging and environmental protection missions. Dredging and disposal 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 with critical economic needs while accomplishing dredging activities is a major challenge. 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. Methods for reclamation and reuse of contaminated sediments from upland disposal areas for beneficial purposes as well as increased capacity are key components of the program that will result in significant fiscal, manpower and time resource savings.

Major focus areas of DOER include, (1) innovative technologies, (2) environmental resource protection, (3) dredged material management, and (4) risk research.

PROPOSED ACTIVITIES FOR FY 2007:

- 1. Innovative Technologies:** Complete field evaluations of navigable depth measurement technologies. The Silent Inspector monitoring system for contract and government dredging operations will be available on a Corps-wide basis. The Dredging Operations Decision Support System will be applied to an existing project in the Savannah District.
- 2. Environmental Resource Protection:** Complete research on methods to minimize losses of threatened or endangered species during inland and coastal waterway dredging. Develop protocols for beneficial use of dredged material for aquatic habitat enhancement and protection of essential fish habitat. Initiate research on protection of salmon, sea turtle and other high priority activities.
- 3. Dredged Material Management:** Develop a data management/analysis and modeling system that will provide efficient use of USACE dredging models and tools in an integrated platform where external data and model output can be efficiently transferred in and out of the system. The system will include the core STFATE, MDFATE, LTFATE, and PTM models as well as a GIS-based data management system.
- 4. Risk:** Combine contaminant distribution predictions with the SSFATE Model (field validated sediment transport and fate predictive model) for full contaminant sediment management. Assess contaminant effects and risk to threatened and endangered fish. Continue bioturbation effects of contaminant release from sediments.

ACCOMPLISHMENTS IN FY 2006: The DOER Program successfully completed all of the project requirements and completed the following products:

- 1. Innovative Technologies:** Initiated cooperative demonstrations for specialized dredges for contaminated sediments; demonstrated innovative placements and rehandling for beneficial uses of dredged material; demonstrated geotextile container performance; evaluate lessons learned from Silent Inspector demos; field trial decision support system; and implement navigable depth measurement technology.
- 2. Environmental Resource Protection:** Continued research on effective engineering and construction alternatives for protection of high priority threatened and endangered species, e.g., sturgeon, least tern, salmon, and sea turtles. Completed habitat protection activities for submerged aquatic vegetation and initiated work on intertidal sand flat and mudflat restoration. Completed environmental windows best management practices for protection of environmental resources.
- 3. Dredged Material Management:** Completed activities on Geographic Information Systems (GIS) based dredged material management tools and initiated development of integrated tool for assessing regional water quality impacts. Continued testing and evaluation guidance for assessing aquatic placement site stability. Completed phyto-engineering technology for confined disposal facility (CDF) reclamation.

4. **Risk:** Initiate work on contaminant losses during dredging, due to bioturbation and leaching. Initiate assessment of contaminant effects and risk to threatened and endangered species. Complete risk based screening procedures for evaluating CDF pathways. Complete the application of structured Decision Analysis for Dredged Material Management.

Dredging Operations Technical Support (DOTS) Program

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost of Continuing Program	\$1,500,000
Appropriation for FY 2006	1,239,000
Allocation Requested for FY 2007	1,391,000
Increase of FY 2007 from FY 2006	152,000

AUTHORIZATION: These efforts are necessary to provide support for management of Federal navigation projects.

JUSTIFICATION: Maintenance of the nation's navigation projects 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" concept by providing comprehensive and interdisciplinary technology transfer, technology application, and training essential to all stakeholders involved in Federal and permitted navigation projects. DOTS is structured as a centralized source of relevant information that maximizes cost effectiveness and facilitates expeditious and consistent implementation of National policies, laws, and 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.

PROPOSED ACTIVITIES FOR FY 2007: Renewed emphasis will be 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; 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. 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.

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 further 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.

ACCOMPLISHMENTS IN FY 2006: The DOTS program successfully met all of its goals established for technical support, technology transfer, and outreach. Technical questions, from Federal and state agencies and private concerns dealing with implementation of the inland and ocean testing manuals, continued to be addressed. As mandated by the 1972 London Convention, the DOTS program annually compiles data and produces reports on ocean dumping activities to the EPA and the International Maritime Organization. The program has conducted 25 sediment management seminars since 1991 that have been attended by over 5,200 personnel from Corps districts, federal, state, and local agencies, industry, and environmental protection groups. Instruction focused on state-of-the-science techniques in regulating, testing, and managing dredged material. The program also continued to support communication among Corps field offices and numerous agencies engaged in development of regional strategies to promote assessment and protection of threatened and endangered species associated with navigation projects. Examples include extensive coordination and renewed effort to minimize take of sea turtles by hopper dredges, and involvement of the American Bird Conservancy in the search for resolution of conflicts between the conduct of navigation projects and Interior Least Tern populations. A joint Corps/EPA task force made significant progress toward formulation of a combined, generic ocean and inland disposal implementation manual. This effort fosters consistency in dredged material testing and management between the Clean Water and Marine Protection, Research and Sanctuaries Acts. This builds upon and serves as a companion to the completed final version of the Upland Testing Manual. Expansion, maintenance and updating of several web-based databases provided enhanced access to important sources of information, such as the Environmental Residue and Effects Database (ERED), which continued to be critical for successful implementation of the CE/EPA ocean and inland testing manuals for dredged material disposal. Additional databases that extend accessibility to related resources, including upland plant toxicology and tools for risk assessment applications were brought online and refined. A new database providing a comprehensive clearinghouse of information pertinent to protection of Threatened and Endangered Species has been added to the website.

The DOTS Program continues to be an exceptionally successful conduit for navigation and dredging-related information, as evidenced by the distribution of thousands of technical manuals, bulletins, technical notes and reports currently found on the DOTS website (<http://el.erdc.usace.army.mil/dots>). The DOTS website provides a comprehensive information retrieval system for all Research and Development

products related to regulating, maintaining, and managing the nation's navigable waterways. For example, the DOTS-sponsored Educational Outreach site (<http://education.wes.army.mil>) has become the most active of all Corps websites, visited by over three million users in its first year of operation, and experiences continued growth.

Great Lakes Tributary Model

SUMMARIZED FINANCIAL DATA:

Estimated Total Program Cost	\$12,500,000
Appropriation for FY 2006	802,000
Allocation Requested for FY 2007	900,000
Increase of FY 2007 from FY 2006	98,000

AUTHORIZATION: Section 516(e), Water Resources Development Act of 1996, as amended by Section 334, Water Resources Development Act of 2000.

JUSTIFICATION: Under Section 516(e) of the Water Resources Development Act of 1996, the Corps is directed to develop sediment transport models for tributaries to the Great Lakes that discharge to Federal navigation channels or Areas of Concern (AOCs). These models 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 support state and local measures that will 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 goals of Executive Order 13340 for Great Lakes Restoration, signed by the President in May 2004 and the recommendations of the Great Lakes Regional Collaboration created under this Executive Order.

PROPOSED ACTIVITIES FOR FY 2007: FY 2007 funds will be used to continue or complete development of models at ten tributaries (Waukegan River, Illinois; Dead River, Michigan; Michigan; St. Louis River, Minnesota; Grand River, Ohio; Cattaraugus Creek, New York; Niagara River, New York; Kinnickinnic River, Wisconsin, and; Fox River, Wisconsin) and continue development of Internet-based modeling tools that may be utilized by local agencies and stakeholders for sub-watershed evaluations. Districts will provide limited, follow-up technical support 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 (or are scheduled for completion in FY06) at the following tributaries (Grand Calumet River, Indiana; Trail Creek, Indiana; Burns Waterway, Indiana; Saginaw River, Michigan; St. Joseph River, Michigan; Clinton River, Michigan; Grand River, Michigan; Nemadji River, Minnesota/Wisconsin; Buffalo River, New York; Genesee River, New York; Augleize River, Ohio; Black River, Ohio; Mill and Cascade Creeks, Pennsylvania; Menomonee River, Wisconsin). 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 contaminated in tributaries to the Great Lakes.

Inland Waterway Navigation Charts

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost of Continuing Program	\$5,500,000
Appropriation for FY 2006	3,304,000
Allocation Requested for FY 2007	3,708,000
Increase in FY 2007 from FY 2006	404,000

AUTHORIZATION: PL 85-480, approved 2 July 1958, authorizes the Commander, USACE 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 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, which 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 2007: Begin development of chart coverage for the Missouri River – 650 river miles; complete development for Tennessee River – 650 miles; update features for the Mississippi, Ohio, Red, Arkansas, Atchafalaya, Black Warrior-Tombigbee, Cumberland, Ten-Tom, Illinois, Green, Ouachita, Kanawha, Monongahela Rivers – 6,787 miles; complete development of channel framework for coastal and Great Lakes areas.

ACCOMPLISHMENTS IN FY 2006: New chart development – 773 river miles: Completed initial chart coverage for the Monongahela, Green, and Arkansas Rivers; Chart revisions and updates – 3,517 river miles: Published updated chart cells for the Mississippi, Ohio, Atchafalaya, Black Warrior-Tombigbee, and Illinois Rivers. Compiled coastal channel Framework data.

Monitoring of Completed Navigation Projects

SUMMARIZED FINANCIAL DATA:

Estimated Five-Year (FY2006-2011) Program Cost	\$10,000,000
Appropriation for FY 2006	1,404,000
Allocation Requested for FY 2007	1,575,000
Increase of FY 2007 over FY 2006	171,000

AUTHORIZATION: These efforts are absolutely essential in providing data for efficient and effective management of critically important Federal shallow- and deep-draft navigation projects from both national economic and national security standpoints.

JUSTIFICATION: 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 use them to improve all navigation projects' performance. Optimizing projects' performance requires they be monitored upon completion, evaluated against preconstruction projections and present needs, and lessons learned translated into proactive management guidance for Corps Districts. Information gained from Monitoring Completed Navigation Projects (MCNP), 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 improved operational and maintenance efficiencies. Information collected from monitored navigation projects will significantly improve projects' performance and optimize opportunities for environmental enhancement. Information analyzed on a national basis documents successful designs, disseminates lessons learned on projects with documented deficiencies, and provides upgraded field guidance for solutions that will reduce life-cycle costs on a national scale.

Selective and intensive monitoring of Civil Works navigation projects is executed to acquire information to improve project purpose attainment, new design procedures, construction methods, and operation and maintenance (O&M) techniques. Both shallow- and deep-draft navigation projects located in ports, harbors, rivers, reservoirs, lakes, estuaries, and 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 by the US Army Engineer Research and Development Center (Coastal and Hydraulics Laboratory). Navigation projects selected for monitoring all have critical significance to both commercial navigation and strategic military sealift. It is exceedingly important that these pertinent monitoring efforts be enhanced to provide additional knowledge on which to base sound navigation design and rehabilitation decisions.

In addition to satisfying Corps' requirements, the MCNP data are made available through publications and electronic technology transfer, and will be of great value to local, State, and other Federal agencies tasked with the development and implementation of regional and national coastal and inland navigation management policies. Results are communicated immediately to other member agencies of the Marine Transportation System (MTS).

PROPOSED ACTIVITIES FOR FY 2007: The program can perform the following activities. Technical Reports (TRs) will be published and disseminated to Corps Field Operating Activities as soon as possible with improved, updated, and enhanced design guidance. At **Kaumalapau Harbor, HI**, wave hindcast will be acquired offshore of the breakwater and wave data collected. Deepwater waves from the hindcast will be transformed into shallow water, and an electronic transformation look-up table will be developed. The first post-rehabilitation onsite inspection of completed breakwater to document the as-built condition will be conducted. In situ non-destructive testing of selected CORE-LOC units placed on the breakwater during rehabilitation will be performed to document strength variations due to aging and location in the wet/dry zones. At **J. T. Myers Locks and Dam, KY**, damage surveys will be conducted to document any additional damage and performance of the FY06 repairs to the lock wall armor. Innovative wall armor repair techniques will be developed and applied to the damaged sections without interruption of navigation operations. New vertical wall armor test strips will be installed using innovative techniques. Photographic and non-destructive testing will be performed to provide durability data for correlation with lock traffic. At **John Day Lock and Dam, OR**, monitoring video, velocity, and discharge data collection will be completed. Video, velocity, and discharge data will be analyzed to understand the mechanism by which hazardous velocity conditions exist at times, due to entrainment of flow from the powerhouse to the spillway as a result of fish passage improvements. A TR will be prepared describing physical and operational changes necessary to alleviate the dangerous navigation conditions under certain river conditions. At **Burns Harbor, IN; Cleveland Harbor, OH; and Keweenaw Waterway, MI**, monitoring data will be obtained and analyzed semi-annually, to evaluate effects of freeze/thaw and wet/dry conditions on scaled-size test armor units. Evaluate present testing methods and protocols to determine breakwater armor stone acceptance methodology more appropriate to large stone units. Prototype monitoring data will be correlated with laboratory analyses of samples from identical quarries. **Periodic Inspections** will publish inspection reports on LIDAR and field inspections of Pacific coastline jetties.

ACCOMPLISHMENTS IN FY 2006: All monitored projects were previously nominated by Corps District and Division offices for inclusion in this MCNP research program. At **Kaumalapau Harbor, HI**, the largest Corps-developed CORE-LOC concrete armor units ever utilized (35 tons) for breakwater stability were used where waves may exceed 30 ft in height. CORE-LOC strength determination was ascertained by destructive and non-destructive testing in the casting yard with follow-up testing on placed armor units. Bottom-mounted internally recording wave gauges were installed after completion of breakwater rehabilitation. At **J. T. Myers Locks and Dam, KY** (as well as other locks along the Ohio and Upper Mississippi River systems), damage to wall armor is a major maintenance problem. Damage survey data were evaluated, identifying damage zones and effects of presence or absence of horizontal and/or vertical armor. Performed state-of-the-art non-destructive testing to evaluate extent of damage. Applied innovative concrete repair technique with minimal impact to lock operation. At **John Day Lock and Dam, OR**, the addition of flow deflectors to improve fish passage may have adversely impacted ability to safely navigate under certain river conditions, due to the entrainment of flow from the powerhouse to the spillway. Specialized equipment for video monitoring was acquired and installed at the structure. Video and periodic discharge measurements were obtained by boat-mounted acoustic doppler profiler equipment during the spill season (time of year when dam is operated) of April through October. Data were accessed for analysis and scientific interpretation. At **Burns Harbor, IN; Cleveland Harbor, OH; and the Keweenaw Waterway, MI** (and at other breakwaters and jetties throughout the Great Lakes region), armor stone deterioration results in exceedingly high rehabilitation and maintenance costs. Present acceptance test methods for large armor stones (up to 42 tons) are identical to tests of concrete stone, and are probably orders of magnitude removed from reality. This study is evaluating effects of scaling by using a range of laboratory samples, and a range of prototype structure test stone sizes cut to uniform dimensions, to develop new acceptance criteria and specifications. Quarry inspections were conducted, and laboratory and prototype stone (index) samples from 12 different quarries around the Great Lakes were acquired for evaluation. Prototype stones were placed on the three designated sites. Monitoring data regarding stone deterioration were obtained quarterly. **Periodic Inspections** of the Hilo, Kahului, Nawiliwili, and Laupahoehoe Harbors, HI,

breakwaters were completed and published in TRs. Updated 5 TRs regarding recent knowledge gained from periodic inspections. Surveyed 3 Pacific coastline jetties using LIDAR technology accompanied by field inspections. Developed and populated GIS for Periodic Inspection data, and published related TR. Coordinated with separate work unit revising coastal structure Condition Site Index system

National Coastal Mapping Program

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost of Continuing Program	\$7,500,000
Allocation for FY 2006	2,400,000 1/
Allocation Requested for FY 2007	2,400,000
Increase of FY 2007 over FY 2006	0

1/ Centrally funded activity in Fiscal Year 2006.

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: This is the only Federal coastal mapping program that produces operational, physical and environmental data along the coast on a recurring basis. Regional Sediment Management requires regional measuring and monitoring to provide 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 and environmental conditions. 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.

PROPOSED ACTIVITIES FOR FY 2007: The program will complete all of the open coast of Lake Michigan and Lake Superior in the Great Lakes (approximately 1,500 miles of shore) and the open Pacific coasts of Washington and Oregon (approximately 500 miles of shore), producing standardized regional sediment mapping products for Michigan, Wisconsin, Minnesota, Washington, and Oregon. Products will include digital water depths, land elevations, high resolution imagery, shoreline position, sea-bottom type, wetland delineation, submerged aquatic vegetation, water clarity, and land use inventory. These products will be provided for use with GIS based tools to support regional sediment management decisions.

ACCOMPLISHMENTS IN PRIOR YEARS: In the first year of the Corps regional coastal mapping effort, the Corps South Atlantic Division's sandy beaches were mapped (approx 1,300 miles) to support Regional Sediment Management practices using an airborne lidar and photogrammetry systems. A total of 1,300 miles of the sandy coasts of Mississippi, Alabama, Florida, Georgia, South Carolina and North Carolina were surveyed. The Corps coordinated with other Federal agencies (Navy, NASA, USGS, and NOAA) to eliminate duplication and leverage programs to maximize survey coverage. The survey covered from the waterline landward 500 m using topographic lidar and from the waterline seaward using hydrographic lidar. The same area was covered concurrently with very high resolution imagery. Products included seamless digital elevations of the coastal zone, orthorectified imagery, a shoreline position vector, and metadata. These data were distributed to the Corps Wilmington, Charleston, Savannah, Jacksonville, and Mobile Districts. Data were also provided to several States, academia, and industry and to USGS and

NOAA where it remains available for download through the NOAA lidar database. The mapping effort was completed six weeks prior to the first storm of the 2004 hurricane season. These data provided the most complete regional data ever collected, including Federal navigation and shore protection projects, immediately prior to four major hurricanes striking Florida and Alabama. As a result of the multi-agency coordination that resulted in the pre-storm surveys, post-storms surveys were coordinated with Navy, NASA and USGS to eliminate duplication. These data were used to assess regional and project hurricane impacts and provided necessary data for planning, engineering, construction and operations. Approximately \$200 million was spent reconstructing shore protection projects based on results determined from these regional coastal mapping data. State, local, industry and academic organizations are using these data for many coastal management applications, projects and programs.

In 2005 approximately 1,000 miles of the sandy beaches bordering the Atlantic Ocean were mapped, including Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Delaware, Maryland, and Virginia with the same approach, producing a variety of digital elevation products for regional sediment management actions in the Corps Norfolk, Baltimore, Philadelphia, New York and New England Districts.

In 2006 approximately 1,000 miles of open lake coasts will be mapped with the same approach used in prior years, producing the same standardized products and information for regional sediment management actions. The surveys will cover Lake Ontario and the New York shore; Lake Erie and the Pennsylvania, Ohio, and Michigan shores; Lakes St. Clair and Huron; and about 200 miles into Lake Michigan and additional Michigan shore. In addition to the physical conditions previously described, new techniques are being developed by teaming with USGS, NOAA, industry, and academia that yield information about the environment. For the first time, a hyperspectral imager will be used operationally to quantify wetlands, submerged aquatic vegetation, sea-bottom type, and land use. This will be the first years where standardized environmental products will be produced for measuring and monitoring regional environmental impacts and changes from our regional sediment management practices.

Navigation Mitigation Projects (Section 111, PL 90-483, as amended)

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost of Continuing Program	\$2,500,000
Appropriation for FY 2006	495,000 1/
Allocation Requested for FY 2007	2,500,000
Increase of FY 2007 Over FY 2006	2,005,000

1/ Funds in the amount of \$495,000 were appropriated in FY 2006 under the Construction account for this work.

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 were shared. 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 by Congress.

PROPOSED ACTIVITIES FOR FY 2007: Funds will be used to continue the Section 111 program of mitigation of shore damages attributable to Federal navigation works.

ACCOMPLISHMENTS IN FY 2006: Funds are being used to continue mitigation efforts.

Performance Based Budgeting Support Program

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost of Continuing Program	\$2,727,000
Appropriation for FY 2006	654,000
Allocation Requested for FY 2007	2,540,000
Increase of FY 2007 over FY 2006	1,886,000

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, General Program. 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 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), and Flood Damage Reduction 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 database management, integration, standardization, operation, enhancement, quality control, user assistance, training, compliance with security requirements and CEEIS services. It is reported under OMBIL-Plus in ITIPS and the OMB 300b submittal accounting for \$1,400,000 of the overall OMBIL-Plus costs. With out this program being funded will result in the Corps being unable to have any performance measurement for budgeting, management and the PART.
- b. **Civil Works Performance Measurements:** Work includes improvement of performance measurements to be incorporated into the budget decision-making process; support for the Office of Management & Budget's Performance Assessment Rating Tool (PART) initiative; 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 in accordance with the revised finance and accounting cost codes that now align with the five O&M business processes - navigation, hydropower, flood damage reduction, recreation and environmental stewardship. 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 measurements among projects at all levels helps focus management attention on corrections of program or project deficiencies.
- 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 processes. The relationships and statistics drawn from the

data may provide evidence to support an increase in expenditures to improve performance. This task will also develop effective graphics 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 2007: Requested FY 2007 funds will provide continuing support of Civil Works O&M integrated information systems; centrally distributed performance measures, outputs and system inventory information; and evaluation of new measures. FY 2007 funds will also support enhanced development of output-oriented performance measures of the incremental return on investment in Corps Civil Works program areas, including acquisition and training in decision-making software. Additional business lines of water supply and enhanced support to flood damage reduction (FDR).

ACCOMPLISHMENTS IN PRIOR YEARS: Included were newly fielded centralized natural resource collection system and user's training in OMBIL data entry and access. The One-stop access for much of Civil Work's budget performance information was expanded for budget submittals in lieu of separate data calls. With fiscal year 2006 funds of \$654,000, the program will be severely curtailed. Funds will be used to continue the activities associated with the Civil Works Business Function Information through mid-year. The Performance Measurements and Business Analysis efforts are not being undertaken in fiscal year 2006.

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:

Estimated Annual Cost of Continuing Program	\$6,365,000
Allocation for FY 2006	5,058,000
Allocation Requested for FY 2007	5,541,000
Increase FY 2007 over FY 2006	483,000

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 USACE serves as the Federal Central Collection Agency, and is the sole U.S. Government source for U.S. domestic and foreign (U.S. foreign waterborne commerce statistics mission transferred to USACE from Census in FY 1999) waterborne commerce and vessel statistics in conformance with the River and Harbor Act of 1922 as amended.

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 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 operations 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 Operations 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. This item is reported under OMBIL-Plus in ITIPS and is \$1,600,000 of the total OMBIL-Plus cost.

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 Customs. The Corps is required to collect data on domestic and foreign shippers of waterborne commerce subject to the Harbor Maintenance Tax (HMT) and provide it to Customs for enforcement and audit purposes. Analysis of Harbor Maintenance Trust Fund (HMTF) revenues and transfers is required to validate the adequacy of the HMTF in light of the uncertainty over the legal and international challenges to the HMT, 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 HMT; to analyze alternative funding options; and to assess the economic and competitiveness impacts of other potential funding sources. Therefore the Corps requires a portion of the administrative funding. Funds will also be used to modify computer programs to conform to changes dictated by Customs' Automated Commercial Environment. This item is reported in OMBIL-Plus in ITIPS and is \$344,341 of the total OMBIL-Plus cost.

FUNDING PROFILE

	<u>Actual FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
(d) Harbor Maintenance Fee Data Collection	\$ 608,000	\$ 541,000	\$ 725,000
(a) Protection, Clearing, and Straightening of Channels	\$ 50,000	\$ 44,000	\$ 45,000
(b) Removal of Sunken Vessels	\$ 500,000	\$ 767,000	\$ 500,000
(c) Waterborne Commerce Statistics	\$ 4,271,000	\$ 3,706,000	\$ 4,271,000
TOTAL	\$ 5,429,000	\$ 5,058,000	\$ 5,541,000

PROPOSED ACTIVITIES FOR FY 2007: Provide navigation project output data for FY 2009 budget formulation. Perform operations, maintenance and necessary enhancements of nation's waterborne commerce, vessel and shipper data and statistics programs. Work with shippers and carriers to insure enhanced operations at a minimum level of burden. Assist Customs with the development of their Customs Modernization Program to ensure that the Corps' foreign waterborne transportation data needs will be met by the new Automated Commercial Environment/International Trade Data System. Work with other Federal agencies and industry to design a new modern, comprehensive automated domestic waterborne data collection system.

ACCOMPLISHMENTS IN PRIOR YEARS: Within constrained budgets worked to maintain FY 2005 data quality and completeness. Provided navigation project output data for FY 2008 budget formulation. Worked with Federal partners, such as U.S. Customs and with industry to ensure data continuity. Emphasized automation of domestic data reporting. Removed the sunken vessel "State of Pennsylvania" from the Christina River in Delaware in accordance with Appropriation Act language.

Regional Sediment Management Program (RSM)

SUMMARIZED FINANCIAL DATA:

Estimated Total Program Cost	\$15,000,000
Allocation Requested for FY 2006	8,415,000
Allocation Requested for FY 2007	1,391,000
Decrease of FY 2007 from FY 2006	7,024,000

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 projects with one another, coordinate management activities with other Federal agencies, State, and local governments, and leverage data collection within regional 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 management of sediments from a regional perspective.

PROPOSED ACTIVITIES FOR FY 2007: All Corps Division Offices (within the U.S.) will continue implementation of regional sediment management initiatives at the Division level and through their respective District offices and formalize processes through Program Management Plans. The program will continue to focus on fostering stakeholder relationships and educating through online knowledge sharing and technology access. The program will establish a national RSM eGIS team to provide leadership in continuing development and implementation of an enterprise GIS and tools for data analysis and decision making. The program will also focus on developing comprehensive regional sediment management strategies to guide investment decisions and present the economic, environmental, and social benefits achieved through RSM. Information and capabilities will be disseminated via online training, onsite workshops, and websites.

ACCOMPLISHMENTS IN FY 2006: Fiscal Year 2006 are being used to continue the base RSM efforts and specific activities included in the Appropriations Act conference report. The base program includes: a sediment needs assessment (New York District) that will (1) compile information on dredging and placement activities by all levels of government and private concerns to define where sediment is currently being moved, and (2) compiling information on where, and by whom, sediment will be needed in the future; a study to investigate environmentally, economically, and technically feasible methods to bypass sediment in the vicinity of Cape May Inlet, NJ (Philadelphia District); conducting a Regional Sediment Management Summit (New England District) to bring together representatives from all relevant Federal and state agencies, non governmental organizations, and interested stakeholders to identify RSM opportunities in the New England states; a study to characterize the physical and biologic habitats of the Lower Snake River Watershed (Walla Walla District) that will be utilized in the District's long-term Programmatic Sediment Management Plan; the development of a Wrightsville Beach to Carolina Beach and Inlet Management Plan (Wilmington District) that will use available data to develop a sediment budget for the region; and a detailed evaluation of up to fifty existing Beneficial Use projects to characterize ecosystem and life-cycle benefits that accrue from effectively managing dredge material placement (Galveston District).

Other specific efforts within the RSM program for fiscal year 2006 include:

Fletcher Cove, Solana Beach, California: The Los Angeles District will develop long-term management strategies for controlling sediments at Fletcher Cove in the City of Solana Beach. Each strategy shall (1) include assessments of sediment rates and composition, sediment reduction options, dredging practices, long-term management of any dredged material disposal facilities, remediation of such facilities, and alternative disposal and reuse options; (2) include a timetable for implementation of the strategy; and (3) incorporate relevant ongoing planning efforts, including remedial action planning, dredged material management planning, harbor and waterfront development planning, and watershed management planning.

Southeast Coast of Oahu, Hawaii: The Honolulu District will continue coastal engineering investigations and computer modeling for this region to (1) document long-term trends in wave climate, (2) develop a regional sediment budget and geographic information system for the littoral cells located within the region, (3) identify suitable sand sources, (4) develop/calibrate a regional coastal processes model for the southeast coast of Oahu, Hawaii, and (5) coordinate study findings as they pertain to potential RSM projects at Kaupo Beach, Bellows Air Force Station, Lanika and Ka'elepulu Stream.

Littoral Drift Restoration Program, Benson Beach, WA: The Portland District will continue processing 5-year duration environmental documents and clearances for two possible methods of placement of material directly on Benson Beach. Conduct a peer review of the sump placement alternative and continue to utilize the ARGUS camera system to obtain baseline information Benson Beach shore face dynamics.

Lido Key, Sarasota, and vicinity and central and southern Brevard County to Dade: The Jacksonville will continue development and utilization of the eCoastal GIS database, which is a regional coastal database that is used between Districts to store, exchange and analyze survey/environmental/photographic and other data. The district will continue to populate the database with historic data in order to share data that has been collected, to reduce duplication of efforts, and to provide a solid source of information for analysis. In addition, district will refine the southwest Florida Sediment Budget by focusing on Big Sarasota Pass as a potential borrow area for shore protection projects in the area and further defining the coastal processes within this area by incorporating the cross-shore sediment transport effects on the littoral environment. Initiate the continuation of the next Sediment Budget to encompass the Central Atlantic region of the state to be utilized in the management of the sand throughout the region. Coordinate with DEP to begin public workshops involving RSM in the Central Atlantic region.

South Jetty and Clatsop Spit, Oregon: The Portland District will complete analysis of alternatives and long-term strategies for managing sediment in the South Jetty and Clatsop Spit region. Studies will be undertaken to determine if placement of dredged material near the South Jetty and Clatsop Spit area will have beneficial effects in protecting the south jetty of the Mouth of the Columbia River.

Coastal zone mapping and imaging laser, University of Southern Mississippi: The Mobile District will develop new integrated capability to measure and monitor coastal zone physical and environmental characteristics on a regional scale to support Regional Sediment Management and O&M of Federal Projects. Work activities will be contracted with the University of Southern Mississippi and others to design systems and lasers to create new models and tools to produce regional sediment management products. The University of Southern Mississippi is uniquely qualified for this effort with the only USA University based program in airborne hydrography. Their main efforts will be the development of ocean optics algorithms, integration of the data processing system, and system and test evaluation.

ENVIRONMENT

Environment Table of Contents

Environment	
Program Assessment Environmental Stewardship	1
Investigations	
Great Lakes and Ohio River Division.....	3
Buffalo River Environmental Dredging NY.....	4
Mississippi Valley Division.....	5
Illinois River Basin Restoration.....	6
Louisiana Coastal Area Aquatic Ecosystem Restoration LA	7
Louisiana Coastal Area Science Program LA	9
Wild Rice River MN.....	10
North Atlantic Division.....	11
Chesapeake Bay VA Shoreline Erosion & Ecosystem Restoration.....	12
Dismal Swamp and Dismal Swamp Canal	13
Hudson-Raritan Estuary, NY and NJ.....	14
Hudson-Raritan Estuary Hackensack Meadowlands	16
Lynnhaven River Basin.....	18
Merrimack River Watershed Study MA and NH	19
Northwestern Division	21
Lower Columbia River Ecosystem Restoration OR & WA	22
Puget Sound Nearshore Marine Habitat Restoration, Washington.....	24
Yellowstone River Corridor, Montana	25
Pacific Ocean Division	27
Ala Wai Canal Oahu HI.....	28
South Atlantic Division.....	30
North Carolina Currituck Sound.....	31
Virginia and North Carolina John H. Kerr Dam and Reservoir	32
Long Island, Marsh Johns Creeks GA	33

Environment

Table of Contents (Continued)

North Carolina Neuse River Basin	34
South Pacific Division	35
Mtilija Dam CA	36
Middle Rio Grande Bosque, New Mexico.....	38
Napa River, Salt Marsh Restoration	39
Rillito River, Pima County	41
Va Shly-Ay Akimel Salt River	43
Southwestern Division	45
Guadalupe and San Antonio River Basins, Texas	46
Lower Colorado River Basin, TX.....	48
Nueces River and Tributaries, Texas	50
Rio Grande Basin, Texas	51
Sabine Pass to Galveston Bay, Texas	53
Springfield MO	54
Walnut and White River Watersheds, Kansas	55
Mississippi River and Tributaries	57
Atchafalaya Basin Floodway System Land Study, Louisiana.....	58
Construction	
Mississippi Valley Division.....	59
Upper Mississippi River Restoration, Illinois, Iowa, Minnesota, Missouri and Wisconsin.....	60
Northwestern Division	69
Lower Columbia River Ecosystem Restoration OR & WA	70
Lower Snake River Fish and Wildlife Compensation WA, OR, Idaho	74
South Atlantic Division.....	78
South Florida Everglades Ecosystem Restoration, Florida.....	79
South Pacific Division	107
Hamilton Airfield Wetlands Restoration, CA.....	108
Mississippi River and Tributaries	112

Environment

Table of Contents (Continued)

Mississippi Delta Region, Louisiana (Salinity Control Structures).....	113
Formerly Utilized Sites Remedial Action Program	
Program Assessment Formerly Utilized Sites Remedial Action Program	121
Formerly Used Sites Remedial Action Program.....	123
Combustion Engineering Windsor, CT.....	125
Iowa Army Ammunition Plant Middletown IA.....	126
W.R Grace Site Baltimore MD.....	127
Shpack Landfill Norton/Attleboro, MA.....	128
St. Louis Downtown Site St, Louis MO	129
Latty Avenue Properties/Hazelwood Interim Storage Site Berkeley MO	130
St. Louis Airport Site Vicinity Properties, St. Louis MO.....	131
St. Louis Airport Site, St. Louis MO	132
DuPont Chambers Works Deepwater NJ.....	133
Maywood Site Maywood NJ	134
Middlesex Sampling Plant Middlesex NJ.....	135
Ashland 1 Tonawanda NY	136
Colonie Site, Colonie NY	137
Guterl Specialty Steel Lockport, NY	138
Linde Air Products Tonawanda NY	139
Niagara Falls Storage site Lewiston NY.....	140
Seaway Industrial Park Tonawanda NY	141
Sylvania Corning Plant Hicksville, NY	142
Former Harshaw Chemical Company Cleveland, OH.....	143
Luckey Site, Luckey, OH.....	144
Painesville Site Painesville OH	145
Shallow Land Disposal Area Parks Township PA	146
Potential Sites.....	147

Environment Table of Contents (Continued)

Operations and Maintenance Summary	148
Continuing Authorities Program.....	150
Section 1135.....	151
Section 206.....	153
Remaining Items Construction	156
Estuary Restoration Program	157
Aquatic Plant Control Program.....	158
Operation and Maintenance	159
Cultural Resources	160
Independent Assessment for Stewardship Program.....	162
Stewardship Support Program	163



PROGRAM

[View Similar Programs](#)

RATING

[What This Rating Means](#)

IMPROVEMENT PLAN

[About Improvement Plans](#)

PROGRAM ASSESSMENT

Corps of Engineers: Environmental Stewardship

The Corps operates 456 dams, reservoirs and other water-related projects nationwide. It is responsible for adjacent Army Corps-owned land. This Corps-owned property covers 12 million acres, equal in size to the States of Vermont and New Hampshire combined. The purpose of this program is to manage this land responsibly.

PERFORMING

Adequate

- **The Corps has done an adequate job managing the land and other natural resources entrusted to it, but it needs to take a more proactive management approach so it has better knowledge of the resources it is responsible for.** For example, it needs to complete natural resource inventories for the sites it manages.
- **An up-to-date Master Plan can help the Corps manage its properties in a responsible way.** Corps regulations require Master Plans for Corps properties but these are not always kept up-to-date.
- **An independently-conducted comprehensive evaluation of the Environmental Stewardship program may provide additional information useful to enhance program effectiveness.**

We are taking the following actions to improve the performance of the program:

- Preparing a series of natural resource inventories, focusing first on areas where an inventory is likely to improve Corps management.
- Preparing and updating Master Plans for Corps properties, as called for in Corps regulations, whenever doing so is cost-effective.
- Conducting an independent assessment of the Corps' Environmental Stewardship program in 2006 and 2007.

LEARN MORE

- **Details and Current Status of this program assessment.**
- How all Federal programs are assessed.
- Learn more about Corps of Engineers: Environmental Stewardship.

INVESTIGATIONS

ENVIRONMENT
INVESTIGATIONS
GREAT LAKES AND OHIO RIVER DIVISION

APPROPRIATION TITLE: General Investigations, Fiscal Year 2007
Great Lakes and Ohio River Division

Project	Total Estimated Federal Cost \$	Allocation Prior to FY 2004 \$	Allocation FY 2004 \$	Allocation FY 2005 \$	Allocation FY 2006 \$	Tentative Allocation FY 2007 \$	Additional to Complete After FY 2007 \$
Buffalo River Environmental Dredging, NY Cost-shared Feasibility Study Buffalo District	1,050,000	69,000	85,000	103,000	0	100,000	693,000

The Buffalo River is located at the eastern end of Lake Erie in Buffalo, NY. The Buffalo River has been identified by the International Joint Commission as one of 43 Areas of Concern (AOCs) in the Great Lakes Basin. Contaminated sediments in the Buffalo River eventually settle in the Federal navigation channel and are unsuitable for open lake disposal. Periodic maintenance of the Federal navigation channel requires disposal of the contaminated sediments into a confined disposal facility (CDF) at considerable Federal expense. The reconnaissance report was completed in December 2003 and addressed the use of Section 312 of the WRDA 1990, as amended, which allows the removal of contaminated sediments adjacent to Federal Navigation projects. The feasibility study provides for sediment analyses, delineation of areas requiring removal, or remediation, of contaminated sediments, development of project cost estimates/cost sharing, and an assessment of the ability of the local sponsor to support the project. Removal or remediation of these sediments will significantly reduce the future Federal cost of maintaining the navigation channel, restore beneficial uses of the river, and allow for the implementation of ecosystem restoration projects. Beneficial use impairments for the Buffalo River currently listed by the USEPA include: restrictions on fish and wildlife consumption; fish tumors or other deformities; degradation of benthos; restrictions on dredging activities; and loss of fish and wildlife habitat. The New York State Department of Environmental Conservation and the Buffalo River Remedial Action Plan (RAP) Committee support contaminated sediment removal. Additionally, the city of Buffalo and Erie County have demonstrated an interest in supporting environmental restoration projects. The feasibility cost sharing agreement initiating the feasibility study was signed by the Buffalo RIVERKEEPERS on April 8, 2005.

Fiscal Year 2006 funds were not received for this project. Fiscal Year 2007 funds will be used to continue the feasibility study, including such tasks as the human health and ecological risk assessment; the geotechnical analysis; and the engineering and design analysis. The estimated cost of the feasibility phase is \$2,100,000, which is to be shared on a 50/50 percent basis by both Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	\$2,100,000
Feasibility Phase (Federal)	1,050,000
Feasibility Phase (Non-Federal)	1,050,000

The feasibility study is currently scheduled for completion in Fiscal Year 2008.

ENVIRONMENT
INVESTIGATIONS
MISSISSIPPI VALLEY DIVISION

APPROPRIATION TITLE: General Investigations, Fiscal Year 2007

Mississippi Valley Division

Study	Total Estimated Federal Cost \$	Allocation To FY 2003 \$	Allocation for FY 2004 \$	Allocation for FY 2005 \$	Allocation for FY 2006 \$	Allocation Requested for FY 2007 \$	Additional to Complete After FY 2007 \$
ILLINOIS							
Illinois River Basin Restoration, IL Rock Island District	6,674,000	1,788,000	415,000	397,000	990,000	400,000	2,684,000

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 Restoration study includes the development of a comprehensive plan for the restoration of the Illinois River watershed, evaluation of critical restoration projects, and initiation of long-term resource monitoring. The plan will address habitat, water quality, navigation, and economic opportunities. Components will 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. This effort complements the related Illinois River Ecosystem Restoration Feasibility Study. The comprehensive plan for this project will be included with the Illinois River Ecosystem Restoration study in a joint report. 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 being designed and will be constructed using Construction, General funds concurrently with the preparation of the comprehensive plan. The feasibility cost sharing agreement with the State of Illinois was signed 31 July 2002.

Fiscal Year 2006 funds are being used to complete public review of the comprehensive plan, conduct feasibility level analysis of critical restoration projects (i.e., Senachwine Creek, Starved Rock Pool, Blackberry Creek, Alton Pool, Kankakee River, Fox River, Tenmile Creek, Crow Creek West, McKee Creek, and Yellow River), sediment gaging and program management.

Funds requested for Fiscal Year 2007 will be used to continue critical restoration project feasibility efforts on four or five projects at an efficient rate in concert with the non-Federal sponsor.

The estimated cost of the feasibility phase is \$9,560,000. 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	\$10,020,000
Reconnaissance Phase (Federal)	460,000
Feasibility Phase (Federal)	6,214,000
Feasibility Phase (Non-Federal)	3,346,000

The reconnaissance phase was completed in July 2002. The feasibility study completion date is being determined.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2007

Mississippi Valley Division

Study	Total Estimated Federal Cost \$	Allocation To FY 2003 \$	Allocation for FY 2004 \$	Allocation for FY 2005 \$	Allocation for FY 2006 \$	Allocation Requested for FY 2007 \$	Additional to Complete After FY 2007 \$
LOUISIANA							
Louisiana Coastal Area -- Aquatic Ecosystem Restoration, LA New Orleans District	123,150,000	10,736,000	3,273,000	6,758,000	18,425,000	20,000,000	63,958,000

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. The Louisiana Coastal Area 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, the non-Federal sponsor, in February 2000 and amended in March 2002 and October 2004. This budget request continues the restoration planning efforts that are currently underway. The ecosystem restoration program will construct significant restoration features, undertake demonstration projects, study potentially promising large-scale, long-term concepts, and take other needed actions to restore the ecosystem. A 10-year plan of studies and projects 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 of feasibility level of detail documents by the Secretary of the Army. The science program is budgeted as a separate line item.

Priorities for Fiscal Year 2006 include: completing a feasibility report and beginning preconstruction engineering and design (PED) work on a Barataria Basin barrier shoreline restoration project; initiating a feasibility study of a Terrebonne Barrier Islands restoration; continuing long-term hydrodynamic study of the Mississippi River; and evaluating options for the restoration and protection of the wetlands that have been impacted by the Mississippi River-Gulf Outlet (MRGO), in concert with an ongoing review of the existing navigation project; as well as Louisiana/Mississippi ecosystem and freshwater needs in the Pontchartrain Basin and western Mississippi Sound. Funding will also support investigations related to a diversion of up to 25,000 to 50,000 cfs at Myrtle Grove; an investigation of possible modifications to the Davis Pond project; new start feasibility studies of long-term concepts for achieving restoration objectives beyond the near-term focus of the 10-year plan; and completion of preparation work for one or more demonstration projects. Decision documents will be developed and submitted for the Barataria Barrier Islands and MRGO Critical Shoreline Protection studies with recommendations for project actions.

Fiscal Year 2007 priorities are to move from feasibility phases into PED for three studies including Barataria Basin Barrier Shoreline Restoration, and MRGO Critical Shoreline Protection and Beneficial Use of Dredged Material. Additional priorities include continued execution of two multi-year feasibility studies and initiation of six additional new start feasibility studies focused on diversions at Hope Canal, moving water and sediments into marshes east of the Atchafalaya River, restoring flow in swamps near the Amite River, and modifying the freshwater diversion structure at Davis Pond. Decision documents will also be submitted for one or more demonstration projects with recommendations for project actions.

The estimated cost of preparing the Near-Term Program follow-on feasibility studies is \$174,000,000. The estimated cost of PED is \$72,300,000. The study cost and PED will be shared on a 50-50 percent basis as follows:

Total Estimated Study Cost	\$174,000,000	Total Estimated Preconstruction	\$72,300,000
Reconnaissance Phase (Federal)	N/A	Engineering and Design Costs	
Feasibility Phase (Federal)	87,000,000	Initial Federal Share	36,150,000
Feasibility Phase (Non-Federal)	87,000,000	Initial Non-Federal Share	36,150,000

The schedule for completing follow-on feasibility studies and PED is being determined.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2007

Mississippi Valley Division

Study	Total Estimated Federal Cost \$	Allocation To FY 2003 \$	Allocation for FY 2004 \$	Allocation for FY 2005 \$	Allocation for FY 2006 \$	Allocation Requested for FY 2007 \$	Additional to Complete After FY 2007 \$
Louisiana Coastal Area -- Science and Technology Program, LA New Orleans District	50,000,000	0	0	0	2,475,000	5,000,000	42,525,000

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 land loss. Additional impacts result from natural subsidence and erosion of the lands where the Mississippi delta meets the Gulf of Mexico and from storm impacts associated with tropical storms, winter cold fronts, and hurricanes.

The science and technology (S&T) program will lead the research effort to advance our understanding of the dynamics of the ecosystem and its needs; identify the key scientific uncertainties and challenges facing the effort to protect and restore the ecosystem; ensure that significant scientific findings and recommendations for adaptive management are made available for incorporation into engineering plans on an ongoing basis; support the development by the Corps of system-wide models for its use in the ongoing process of formulating and evaluating possible combinations of projects based on their incremental cost-effectiveness; review proposed demonstration projects and large-scale studies developed by the Corps; and monitor the ecological effects of the overall restoration effort and report on its success.

This investment in the S&T program will support the overall restoration effort and ensure that the aquatic ecosystem restoration program is successfully meeting the ecological needs. The S&T program will be independent of the aquatic ecosystem restoration program, yet responsive to it. The efforts of these two S&T programs will be closely coordinated with the ecosystem restoration program to ensure that they support meeting both near-term and long-term restoration needs. Funding for research, model development, and monitoring will be awarded on a competitive basis under the direction of the S&T program office. The local sponsor is the State of Louisiana.

Fiscal Year 2006 funds are being used to establish the S&T program, fund the Director, begin staffing of the program office, and continue priority work items such as identification of monitoring, modeling, and planning tools to support analysis of the coastal ecosystem of Louisiana. Research and development priority categories include: data acquisition; establishing and maintaining information management protocols to facilitate the sharing of findings between scientists, engineers and planners; support development of advanced ecosystem functioning and benefits assessment models; and identifying adaptive management principles for incorporation into project recommendations.

Funds requested for FY 2007 will be used to continue funding of the S&T program office and associated activities which include: the Science Board and Science Coordination Team; implementation and refinement of decision making frameworks, benefits metrics, and data and information management plans; continued development of models and planning tools for addressing ecosystem restoration planning needs; demonstration project involving long distance conveyance of dredged material, as well as additional demonstration projects to address scientific uncertainties. The estimated cost of the S&T program is \$100,000,000 over a 10 year period and will be cost shared on a 50-50 percent basis as follows:

Total Estimated Program Cost	\$100,000,000
Reconnaissance Phase (Federal)	N/A
Feasibility Phase (Federal)	50,000,000
Feasibility Phase (Non-Federal)	50,000,000

APPROPRIATION TITLE: General Investigations, Fiscal Year 2007

Mississippi Valley Division

Study	Total Estimated Federal Cost \$	Allocation To FY 2003 \$	Allocation for FY 2004 \$	Allocation for FY 2005 \$	Allocation for FY 2006 \$	Allocation Requested for FY 2007 \$	Additional to Complete After FY 2007 \$
MINNESOTA							
Wild Rice River, MN (Red River of the North Basin, MN, ND, SD and Manitoba, Canada) St. Paul District	1,500,000	193,000	295,000	232,000	99,000	300,000	381,000

The Wild Rice River is a tributary of the Red River of the North in northwestern Minnesota, about 250 miles northwest of Minneapolis. Agriculture dominates the watershed economy and land use and has been the prime motivator for extensive channel straightening, ditching, and drainage. The topography contributes to flood problems. The Wild Rice River's fast moving flow from relatively steep upland and beach ridges from glacial Lake Agassiz discharges onto the flat glacial lakebed where channel capacity is inadequate. Flooding has become more frequent and severe in recent years. For example, the June 2002 flood was the flood of record at Ada, Minnesota (Norman County seat) and exceeded the 500-year event in portions of the watershed. In collaboration with Federal and State agencies, environmental organizations, landowners, and other stakeholders, the Wild Rice Watershed District, non-Federal sponsor for the Wild Rice River Feasibility Study, conducted an assessment of water resource problems, needs, and opportunities. That assessment determined that priority should be given to flood damage reduction and environmental restoration in the lower portion of the watershed, recommended further investigation of a number of corrective measures, and concluded that high implementation costs necessitated Federal participation. Based on those findings, the Wild Rice Watershed District and Corps executed a feasibility cost sharing agreement 10 January 2003 and are partnering the study to address ecosystem restoration as well as floodwater storage and diversion alternatives. The feasibility study will collect baseline data, develop analytical models, and conduct preliminary screenings of storage and diversion measures to determine the likelihood of Corps participation.

Fiscal Year 2006 funds are being used for continuing the feasibility study. Specific goals include updating the project study plan, developing a community model for measuring the environmental outputs and for designing ecosystem restoration measures and alternatives for investigating alternatives to land acquisition, and if possible, conducting an in-progress review, a prerequisite for the alternatives formulation briefing.

Funds requested for Fiscal Year 2007 will be used to continue the feasibility study. Specific goals include beginning the environmental assessment; preparing a geotechnical studies report, social/institutional analysis, financial analysis, and real estate analysis; conducting the alternatives formulation briefing; identifying plans, including the local sponsor's preferred plan; and continuing public involvement.

The estimated cost of the feasibility phase is \$3,000,000, 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	\$3,000,000
Reconnaissance Phase (Federal)	N/A ¹
Feasibility Phase (Federal)	1,500,000
Feasibility Phase (Non-Federal)	1,500,000

The reconnaissance phase was completed in January 2003. The feasibility study completion date is being determined.

¹ Reconnaissance phase funded under overall study authority for Red River of the North.

ENVIRONMENT
INVESTIGATIONS
NORTH ATLANTIC DIVISION

APPROPRIATION TITLE: Investigations, Fiscal Year 2007

North Atlantic Division

Study	Total Estimated Federal Cost \$	Allocation Thru FY 2003 \$	Allocation FY 2004 \$	Allocation FY 2005 \$	Allocation FY 2006 \$	Tentative Allocation FY 2007 \$	Additional to Complete After FY 2007 \$
VIRGINIA							
Chesapeake Bay, VA Shoreline Erosion & Ecosystem Restoration (New Point Comfort Area) Mathews County Norfolk District	175,000	0	68,000	28,000	40,000	39,000	0

The study area is located in the New Point Comfort Lighthouse area in Mathews County, VA at the confluence of Mobjack Bay and the Chesapeake Bay.

The reconnaissance study determined there is a Federal interest for further study to evaluate potential erosion reduction measures and potentially feasible habitat restoration measures in the vicinity of the New Point Comfort Lighthouse area in Mathews County, VA. The feasibility study will evaluate structural measures that could protect and enhance the growth of submerged aquatic vegetation and wetlands, as well as providing additional protection to the lighthouse, a historical structure. An assessment of new work and maintenance dredging in the area for opportunities for beneficial uses of dredge material will also be included as part of the study. The non-Federal sponsor for the feasibility phase is Mathews County, VA who fully understands the cost-sharing requirements for the feasibility study. The feasibility cost sharing agreement was executed in May 2004.

Fiscal Year 2005 funds were used to continue the Feasibility Study.

Fiscal Year 2006 funds are being used to continue the feasibility study, including data gathering, economic and environmental analyses, public coordination and plan formulation.

Funds requested for Fiscal Year 2007 will be used to continue these studies and complete the draft feasibility report. The estimated cost of the feasibility phase is \$350,000, 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	\$350,000
Reconnaissance Phase (Federal)	0
Feasibility Phase (Federal)	175,000
Feasibility Phase (Non-Federal)	175,000

The feasibility study is scheduled to be completed in June 2007.

6 February 2006

APPROPRIATION TITLE: Investigations, Fiscal Year 2007

North Atlantic Division

Study	Total Estimated Federal Cost \$	Allocation Thru FY 2003 \$	Allocation FY 2004 \$	Allocation FY 2005 \$	Allocation FY 2006 \$	Tentative Allocation FY 2007 \$	Additional to Complete After FY 2007 \$
VIRGINIA							
Dismal Swamp and Dismal Swamp Canal Norfolk District	394,000	69,000	35,000	79,000	149,000	62,000	0

The Dismal Swamp and Dismal Swamp Canal are located in Chesapeake, Virginia. The swamp is maintained by fixed weirs across drainage ditches to restrict the flow of water out of the swamp and inward to Lake Drummond, which is in the middle of the swamp. Lake Drummond also feeds water through a feeder ditch to maintain the water level in the Dismal Swamp Canal. The canal is maintained as part of the Atlantic Intracoastal Waterway. During heavy storm events Lake Drummond inundated areas in the City of Chesapeake, Virginia and the surrounding area. The remnants of Hurricanes Dennis and Floyd in September 1999 caused significant damages from flooding in the city and the surrounding area.

The Section 905 (b) analysis was certified on November 14, 2003, which found there was a Federal interest to pursue feasibility level studies for preventing or minimized the flooding by diverting the floodwaters from Lake Drummond through the navigation locks at Deep Creek, Virginia and at South Mills, North Carolina. The locks are located at each end of the Dismal Swamp Canal. In addition, the reconnaissance phase determined that flood damage reduction measures in the City of Chesapeake are warranted, as well as opportunities for ecosystem restoration. The City of Chesapeake, Virginia, is the potential study sponsor for the feasibility phase of the study, and they fully understand the cost-sharing requirements for the feasibility phase. The feasibility cost-sharing agreement was signed in September 2004.

Fiscal Year 2005 funds were used to continue the Feasibility Study.

Fiscal Year 2006 funds will be used to continue the feasibility phase of the study.

Funds requested for Fiscal Year 2007 will be used to complete the feasibility phase, formulation of plan alternatives, and coordination with local interests. The estimated cost of the feasibility phase is \$502,000, 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	\$688,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	294,000
Feasibility Phase (non-Federal)	294,000

The feasibility phase is scheduled for completion December 2006.

6 February 2006

APPROPRIATION TITLE: Investigations, Fiscal Year 2007

North Atlantic Division

Study	Total Estimated Federal Cost \$	Allocation Thru FY 2003 \$	Allocation FY 2004 \$	Allocation FY 2005 \$	Allocation FY 2006 \$	Tentative Allocation FY 2007 \$	Additional to Complete After FY 2007 \$
NEW YORK							
Hudson-Raritan Estuary, NY and NJ New York District	9,740,000	3,252,000	679,000	377,000	792,000	400,000	4,240,000

The study area includes the Port of New York and -New Jersey and includes the Ambrose and Anchorage Channel; New York and New Jersey Channels; Newark Bay Channel; Port Jersey Channel; Claremont Channel; Bay Ridge and Red Hook Channel; and Buttermilk Channel, the Upper and Lower New York Bays, the Raritan Bay and Jamaica Bay. The Port of New York-New Jersey is the largest port on the East coast with channels ranging depths of 35 to 45 feet. These waters and the surrounding shoreline, mudflats, intertidal marshes, and adjacent upland areas provide valuable habitat for fish, plant and wildlife resources, and accommodate migrating birds along the Atlantic flyway. The area is also utilized by a number of Federally threatened/endangered species including the shortnosed sturgeon, five species of sea turtles, peregrine falcons, piping plovers 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 Implementation Plan(CRIP). As an interim measure the study will be assessing thirteen specific sites within the estuary for potential ecosystem restoration measures, including contaminant reduction measures, creation of wetlands, water quality improvements, and alteration of hydrology/hydraulics to improve water movement and quality. The feasibility cost-sharing agreement was executed in July 2001 with the Port Authority of New York and New Jersey.

Fiscal Year 2005 funds were used to continue the feasibility phase , including data collection, existing condition assessments, development of a process analysis framework and completion of the first interim feasibility phase for the Liberty State Park (LSP).

Fiscal Year 2006 funds are being used to continue the feasibility phase of the study, including data collection, preliminary plan formulation for a comprehensive estuary restoration improvement plan and coordination with local interests.

The funds requested for fiscal year 2007 will be used to continue the feasibility phase, including data collection, economic, hydraulic, and environmental analyses necessary to formulate alternatives for a comprehensive restoration improvement plan and site-specific restoration opportunities. The estimated cost of the feasibility study 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 study cost sharing is as follows:

6 February 2006

APPROPRIATION TITLE: Investigations, Fiscal Year 2007

North Atlantic Division

Study	Total Estimated Federal Cost \$	Allocation Thru FY 2003 \$	Allocation FY 2004 \$	Allocation FY 2005 \$	Allocation FY 2006 \$	Tentative Allocation FY 2007 \$	Additional to Complete After FY 2007 \$
-------	--	-------------------------------------	-----------------------------	-----------------------------	-----------------------------	--	--

Hudson-Raritan Estuary, NY and NJ
New York District

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 is being determined.

APPROPRIATION TITLE: Investigations, Fiscal Year 2007

North Atlantic Division

Study	Total Estimated Federal Cost \$	Allocation Thru FY 2003 \$	Allocation FY 2004 \$	Allocation FY 2005 \$	Allocation FY 2006 \$	Tentative Allocation FY 2007 \$	Additional to Complete After FY 2007 \$
NEW JERSEY							
Hudson-Raritan Estuary, Hackensack Meadowlands New York District	2,600,000	150,000	73,000	278,000	545,000	200,000	954,000

The study 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 further degraded the wetlands producing an unfavorable environment for fish and wildlife, including wading birds, shorebirds, raptors, anadromous fish, estuarine fish, and terrapins.

The reconnaissance report for the Hudson-Raritan Estuary, approved in July 2000, found there is a Federal interest for further studies for the Hackensack Meadowlands. The interim feasibility study for the Hackensack Meadowlands is assessing items that have a Federal interest for ecosystem restoration, including contaminant reduction measures, enhancement of wetlands, water quality improvements, and alteration of hydrology/hydraulics to improve water movement and quality with in the Hackensack Meadowlands. The non-Federal sponsor is the New Jersey Meadowlands Commission, who executed a feasibility cost-sharing agreement in April 2003.

Fiscal Year 2005 funds were used to continue the feasibility phase. The efforts included detailed investigation of further Tier 1 restoration sites (Meadowlark Marsh, Metro Media, Lyndhurst Riverside, etc.), beginning investigation into alternatives to restore impacted waterbodies in the Meadowlands, gathering data for the preparation of a (EIS), and completion of the development of the Meadowlands Comprehensive Restoration Implementation Plan.

Fiscal Year 2006 funds will be used to continue the feasibility phase of the study, including coordination with the USFWS, environmental data analysis for sites under consideration for restoration, and coordination with local interests.

Funds requested for fiscal year 2007 will be used to continue the feasibility study, including geotechnical and biological baseline data collection, design development, and plan formulation for the Tier 1 sites and conceptual plans for the remaining sites. The estimated cost of the feasibility study is \$5,200,000, 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:

APPROPRIATION TITLE: Investigations, Fiscal Year 2007

North Atlantic Division

Study	Total Estimated Federal Cost \$	Allocation Thru FY 2003 \$	Allocation FY 2004 \$	Allocation FY 2005 \$	Allocation FY 2006 \$	Tentative Allocation FY 2007 \$	Additional to Complete After FY 2007 \$
Hudson-Raritan Estuary, Hackensack Meadowlands New York District							
		Total Estimated Study Cost		\$5,200,000			
		Reconnaissance phase (Federal)		0			
		Feasibility phase (Federal)		2,600,000			
		Feasibility phase (Non-Federal)		2,600,000			

The reconnaissance phase was completed in April 2003. The feasibility study scheduled is being determined.

APPROPRIATION TITLE: Investigations, Fiscal Year 2007

North Atlantic Division

Study	Total Estimated Federal Cost \$	Allocation Thru FY 2003 \$	Allocation FY 2004 \$	Allocation FY 2005 \$	Allocation FY 2006 \$	Tentative Allocation FY 2007 \$	Additional to Complete After FY 2007 \$
Lynnhaven River Basin Norfolk District	1,640,000	149,000	-45,000	383,000	297,000	349,000	507,000

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. A Federal navigation project is maintained within the upper reaches of the river. The project depth varies from 10 feet deep at the river's entrance to Chesapeake Bay, to a 6 feet deep channel at the narrows between Broad Bay and Linkhorn Bay. In addition, 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 Section 905 (b) analysis, certified in January 2004, found there was a Federal interest for further feasibility phase studies for six areas of concern within the Lynnhaven River Basin. The feasibility study will evaluate ecosystem restoration measures to improve water quality, restore wetlands, submerged aquatic vegetation, and fish and wildlife habitats, and improve the river bottom material by dredging or other methods. The sponsor for the feasibility phase of the study is the City of Virginia Beach, Virginia, who understands the cost-sharing requirements to the feasibility phase of the study. The feasibility cost-sharing agreement was executed in September 2004.

Fiscal Year 2005 funds were used to continue the feasibility phase of the study.

Fiscal Year 2006 funds are being used to continue the feasibility phase of the study including data gathering, public involvement, preliminary plan formulation and the continued development of the hydrodynamic and water quality model of the basin.

Funds requested for Fiscal Year 2007 will be used to continue the feasibility phase of the study, including completion of the river basin modeling efforts, public involvement, economic and environmental analyses, plan formulation, and local coordination. The estimated cost of feasibility phase is \$3,080,000, 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	\$3,180,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	1,540,000
Feasibility Phase (non-Federal)	1,540,000

The Feasibility Cost Sharing Agreement was executed in September 2004. The feasibility study scheduled is being determined

6 February 2006

APPROPRIATION TITLE: Investigations, Fiscal Year 2007

North Atlantic Division

Study	Total Estimated Federal Cost \$	Allocation Thru FY 2003 \$	Allocation FY 2004 \$	Allocation FY 2005 \$	Allocation FY 2006 \$	Tentative Allocation FY 2007 \$	Additional to Complete After FY 2007 \$
Merrimack River Watershed Study, MA and NH New England District	3,750,000	630,000	273,000	198,000	198,000	200,000	2,251,000

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 US Environmental Protection Agency is requiring the five communities of Haverhill, Lawrence, and Lowell in Massachusetts and Manchester and Nashua in New Hampshire to address combined sewer outfall (CSO) discharges into the Merrimack River. These communities have formed the Merrimack Coalition and along with state agencies have asked the Corps for assistance in developing a watershed management plan to restore the river. 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 Coalition, on 20 February 2002 for Phase I of the study.

Fiscal Year 2005 funds were used to continue Phase I of the study; including water quality modeling, low flow time of travel studies for contaminants along the main stem of the Merrimack River, and initial alternative analysis.

Fiscal Year 2006 funds are being used to continue the study, including completion of Phase I investigations in March 2006. Fiscal Year 2006 funds will also be used to execute a cost-sharing agreement with the New Hampshire Department of Environmental Services in June 2006 to begin Phase II investigations. Phase II of the study will involve multiple agreements, which may be executed with different communities or state agencies. Initial Phase II work includes development of a detailed scope of study, data collection and evaluation, river studies and computer modeling.

Funds requested for Fiscal Year 2007 will be used to continue the Phase II investigations, including additional watershed modeling and analysis of restoration alternatives.

The estimated cost of the feasibility study is \$7,200,000, 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:

6 February 2006

APPROPRIATION TITLE: Investigations, Fiscal Year 2007

North Atlantic Division

Study	Total Estimated Federal Cost \$	Allocation Thru FY 2003 \$	Allocation FY 2004 \$	Allocation FY 2005 \$	Allocation FY 2006 \$	Tentative Allocation FY 2007 \$	Additional to Complete After FY 2007 \$
Merrimack River Watershed Study, MA and NH New England District							
				\$7,350,000			
				150,000			
				3,600,000			
				3,600,000			
The study completion date is being determined.							

ENVIRONMENT
INVESTIGATIONS
NORTHWESTERN DIVISION

ENVIRONMENT, Fiscal Year, 2007
General Investigations

NORTHWEST DIVISION

Study	Total Estimated Federal Cost \$	Allocations Thru FY 2003 \$	Allocation FY 2004 \$	Allocation FY 2005 \$	Allocation FY 2006 \$	Tentative Allocation FY 2007 \$	Additional to Complete After FY 2007 \$
OREGON							
Lower Columbia River Ecosystem Restoration, OR & WA Portland District	3,191,000	166,000	166,000	138,000	149,000	100,000	2,472,000

The Lower Columbia River extends from the mouth of the Columbia River to river mile (RM) 145 at Bonneville Lock and Dam; its estuary is classified 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 40-foot deep-draft federal navigation channel from the mouth to the Portland metropolitan area about RM 105 and a shallow draft channel upstream from that point. The Corps of Engineers' 125-year involvement with the Columbia system includes flood damage reduction, navigation, fish and wildlife, environmental restoration, hydropower, bank protection, recreation and water supply improvements.

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 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 actions 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 Watershed 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 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

ENVIRONMENT, Fiscal Year, 2007
General Investigations

NORTHWEST DIVISION

Study	Total Estimated Federal Cost \$	Allocations Thru FY 2003 \$	Allocation FY 2004 \$	Allocation FY 2005 \$	Allocation FY 2006 \$	Tentative Allocation FY 2007 \$	Additional to Complete After FY 2007 \$
-------	--	--------------------------------------	-----------------------------	-----------------------------	-----------------------------	--	--

OREGON (Continued)

Lower Columbia River Ecosystem Restoration (Continued)

current efforts by a number of governmental and private organizations including the 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.

The reconnaissance study was completed in Aug 2001. The Portland District has completed a Project Management Plan (PMP) and is working closely with the states of OR and WA and other stakeholders. 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 FCSA was executed 16 December 2003. Sponsors have provided \$539,336 in work-in-kind to date.

The Fiscal Year 2006 funds will be used to continue the feasibility phase. Specific actions include project identification, potential actions and alternative development in the Lower Columbia River Mainstem, Grays River, East Fork Lewis River, Lower Cowlitz River and Washougal River Subbasins as well as projects on the Oregon side of the Columbia River.

The Fiscal Year 2007 funds will be used to continue the feasibility phase. Specific actions include the refining the potential actions and alternatives for the identified sites and begin to develop costs and benefits for potential actions.

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 sponsor. All or part of the non-Federal share may be in-kind services. Date for completion of feasibility phase is to be determined. 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 schedule for completion is to be determined.

ENVIRONMENT, Fiscal Year, 2007
General Investigations

NORTHWEST DIVISION

Study	Total Estimated Federal Cost \$	Allocations Thru FY 2003 \$	Allocation FY 2004 \$	Allocation FY 2005 \$	Allocation FY 2006 \$	Tentative Allocation FY 2007 \$	Additional to Complete After FY 2007 \$
WASHINGTON (Continued)							
Puget Sound Nearshore Marine Habitat Restoration, Washington Ecosystem Restoration Seattle District	6,123,000	1,181,000	478,000	510,000	743,000	400,000	2,811,000

The Puget Sound Nearshore study area is located in and around 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 ESA listed species use the nearshore for forage, nesting, and/or migration. These include southern resident Orca whale, marble murrelet, stellar sea lion, bald eagle, Puget Sound bull trout, Puget Sound Chinook, Hood Canal Chinook, summer chum, and humpback whale. 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 management measures, such as dike and seawall removal, beach restoration, and tidal marsh nutrient sequestration, 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. In December 2005 the Governor of the State of Washington reaffirmed this project as a priority restoration initiative for the state.

Fiscal year 2006 funds will be used to complete the change analysis between historic and current conditions, continue to identify the future without project conditions, refine the management measures and map community-identified restoration projects.

Fiscal year 2007 funds will be used to continue a strategic needs assessment and the future without the project analysis. The strategic assessment will identify potential large-scale restoration project locations and integrate smaller community based restoration. A summary of study cost sharing is as follows:

Total Estimated Study Cost	\$12,123,000
Reconnaissance Phase (Federal)	123,000
Feasibility Phase (Federal)	6,000,000
Feasibility Phase (Non-Federal)	6,000,000

The reconnaissance phase was completed in July 1997. The study is currently in the feasibility phase and the feasibility phase completion date is to be determined.

ENVIRONMENT, Fiscal Year, 2007
General Investigations

NORTHWEST DIVISION

Study	Total Estimated Federal Cost \$	Allocations Thru FY 2003 \$	Allocation FY 2004 \$	Allocation FY 2005 \$	Allocation FY 2006 \$	Tentative Allocation FY 2007 \$	Additional to Complete After FY 2007 \$
MONTANA							
Yellowstone River Corridor, Montana Omaha District	4,759,000	409,000	115,000	215,000	396,000	200,000	3,424,000

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 individual's 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 hydrogeomorphic 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.

ENVIRONMENT, Fiscal Year, 2007
General Investigations

NORTHWEST DIVISION

Study	Total Estimated Federal Cost \$	Allocations Thru FY 2003 \$	Allocation FY 2004 \$	Allocation FY 2005 \$	Allocation FY 2006 \$	Tentative Allocation FY 2007 \$	Additional to Complete After FY 2007 \$
-------	------------------------------------	--------------------------------	--------------------------	--------------------------	--------------------------	------------------------------------	--

MONTANA (Continued)

Yellowstone River Corridor, Montana (Continued)

The Feasibility Cost Sharing Agreement (FCSA) was signed in January 2004. The cost share partner is the Custer County Conservation District, the fiscal agent for the Yellowstone River Conservation District Council. The sponsor will have provided approximately \$1.0M in in-kind services by the end of Fiscal Year 2006.

The funds requested for Fiscal Year 2006 are being used to continue the feasibility phase of the study. Specific tasks include completion of comprehensive hydrologic modeling of the Yellowstone River Basin above the Bighorn River confluence, initiation of flood plain hydraulic modeling and floodplain mapping in Stillwater and Yellowstone Counties, initiation of Avian-wildlife studies along the riparian corridor, completion of Socio-cultural studies of various user groups and communities along the river corridor, development of an interactive GIS-based web-site for integrated data sharing among study partners and dissemination to the public, initiation of Tribal coordination meetings, and Corps project management and public involvement coordination activities.

The funds requested for Fiscal Year 2007 will be used to continue the feasibility phase of the study. Specific tasks include completion of the Avian-wildlife studies along the riparian corridor, continuation of hydraulic modeling and floodplain mapping in Stillwater and Yellowstone Counties, continued GIS-based web-site development and maintenance, and continued Corps project management and public involvement coordination activities.

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 schedule for completion is to be determined.

ENVIRONMENT
INVESTIGATIONS
PACIFIC OCEAN DIVISION

APPROPRIATION TITLE: General Investigations, Fiscal Year 2007

Pacific Ocean Division

Study	Total Estimated Federal Cost \$	Allocation Thru FY 2003 \$	Allocation FY 2004 \$	Allocation FY 2005 \$	Allocation FY 2006 \$	Tentative Allocation FY 2007 \$	Additional to Complete After FY 2007 \$
Ala Wai Canal, Oahu, HI Honolulu District	2,685,000	792,000	115,000	119,000	495,000	300,000	864,000

The Ala Wai Canal, located in the Waikiki area on the Island of Oahu, is a two-mile long man-made waterway constructed during the 1920's that has served as a collection and transmission point for discharged silt, pollutants and floodwaters from the Makiki, Manoa and Palolo drainage basins and surrounding areas of Waikiki. This drainage area encompasses a total land area of approximately 16.3 square miles and is considered to be the most densely populated area in the state. The two-mile long canal is approximately half a mile inland from Hawaii's major landmark and primary tourist destination Waikiki Beach. The 150-to 250-foot-wide canal was originally dredged to a depth of 25 feet. In recent years the accumulation of debris, especially at the confluence of the major stream tributaries of the Makiki and Manoa-Palolo Streams and the Ala Wai Canal, has resulted in depths of only one to two feet. With increased urbanization of the drainage basin, the potential flood risk to the Waikiki area has become a major concern to the local sponsor. During the passage of Hurricane Iniki in 1992, the Ala Wai Canal overtopped its bank near the McCully Bridge and caused some flooding of streets in the Waikiki area. Flood mitigation measures, including both non-structural and structural alternatives, will be addressed and investigated for potential implementation.

The Ala Wai Canal also serves as an important link between the freshwater ecosystems of the upper drainage basins and the marine environment along the coast. Endemic amphidromous species such as native gobies and shrimp that had once utilized the Ala Wai Canal as a migratory pathway from the mountains to the sea are nearly non-existent. 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. In a cooperative effort with Federal, State and local agencies, 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 community in this highly developed urban center is very active and interested in improving the overall health of the watershed. This is evidenced by numerous community restoration activities. The community, through the local sponsor, has requested an expansion of the project to address environmental degradation and flood control throughout the entire Ala Wai watershed. The recent Manoa Stream flood on October 30, 2004 that is estimated to have caused over \$100M in damages demonstrates the need for addressing watershed problems more comprehensively. Budgets for FY06 and beyond reflect the expansion of the Ala Wai Canal Project.

The feasibility cost sharing agreement (FCSA) was executed in April 2001 with the State Department of Land and Natural Resources. Fiscal Year 2006 funds are being used to continue feasibility study efforts. Activities include amending the FCSA and conducting a topographic survey of the watershed.

Fiscal Year 2007 funds will be used to continue feasibility phase studies to include hydrologic analysis and problem identification. The total estimated cost of the feasibility phase is \$5.1M, which is to be cost shared at 50 percent by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	\$5,245,000
Reconnaissance Phase (Federal)	125,000
Feasibility Phase (Federal)	2,560,000
Feasibility Phase (Non-Federal)	2,560,000

APPROPRIATION TITLE: General Investigations, Fiscal Year 2007

Pacific Ocean Division

Study	Total Estimated Federal Cost \$	Allocation Thru FY 2003 \$	Allocation FY 2004 \$	Allocation FY 2005 \$	Allocation FY 2006 \$	Tentative Allocation FY 2007 \$	Additional to Complete After FY 2007 \$
-------	--	-------------------------------------	-----------------------------	-----------------------------	-----------------------------	--	--

The completion date of the feasibility study is to be determined.

ENVIRONMENT
INVESTIGATIONS
SOUTH ATLANTIC DIVISION

APPROPRIATION TITLE: General Investigations, Fiscal Year 2007

Division: South Atlantic Division

Study	Total Estimated Federal Cost	Allocation Through FY 2003	Allocation FY 2004	Allocation FY 2005	Allocation FY 2006	Tentative Allocation FY 2007	Additional to complete After FY 2007
North Carolina	\$	\$	\$	\$	\$	\$	\$
Currituck Sound Wilmington District	1,625,000	125,000	39,000	197,000	149,000	150,000	965,000

The study area is located in Currituck and Dare Counties in the northeastern part of North Carolina. Currituck Sound is a 153 square mile brackish water estuary separated from the Atlantic Ocean by thin barrier islands known as the Outer Banks. The most significant freshwater inputs to Currituck Sound include North Landing River and Northwest River, both originating in the Great Dismal Swamp of North Carolina and Virginia. Back Bay, a 35 square mile estuary located in Virginia, also discharges water into the sound through shallow water channels along the eastern shore. Water level fluctuations in Currituck Sound are a function of prevailing winds from Albemarle Sound. Southerly winds force water into Currituck Sound, whereas northerly winds force water out. The cumulative effects of prevailing winds and possible point source inputs of brackish water from Federal canals influence sound salinity. The local interests are concerned about increased salinity levels which have frequently exceeded the threshold for many freshwater fisheries and have caused a severe decline in these fisheries. In addition, the increased salinity regime has contributed to the loss of extensive submerged aquatic vegetation (SAV). SAV provides a food source for various fish stocks, creates an ideal habitat for numerous migrating waterfowl species, and maintains the stability of the sound bottom. The study will address these water quality issues and explore environmental protection and restoration alternatives. The State of North Carolina is the sponsor and understands the cost share requirements on the feasibility study. The feasibility cost sharing agreement was signed on 5 February 2004. 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.

Fiscal Year 2006 funds are being used to continue the feasibility phase of the study.

Fiscal Year 2007 funds will be used to continue the feasibility phase including collecting required data and performing modeling activities to aid in determining a preferred restoration alternative. The estimated cost of the feasibility phase is \$3,000,000, 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	\$3,125,000
Reconnaissance Phase (Federal)	125,000
Feasibility Phase (Federal)	1,500,000
Feasibility Phase (Non-Federal)	1,500,000

The reconnaissance phase was completed in February 2004. The feasibility study completion is to be determined.

6 February 2006

APPROPRIATION TITLE: General Investigations, Fiscal Year 2007
 Division: South Atlantic Division

Study	Total Estimated Federal Cost	Allocation Through FY 2003	Allocation For FY 2004	Allocation For FY 2005	Allocation FY 2006	Tentative Allocation FY 2007	Additional to complete After FY 2007
	\$	\$	\$	\$	\$	\$	\$
Virginia and North Carolina							
John H. Kerr Dam and Reservoir Wilmington District	2,275,000	208,000	163,000	237,000	297,000	300,000	1,070,000

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 control, water supply, and recreation. Two downstream non-Federal hydropower reservoirs, Gaston and Roanoke Rapids, operated by the Dominion Power Company have minimal active storage for daily hydropower peaking. The Kerr, Gaston and Roanoke Rapids projects operate cooperatively generating power, controlling flooding, and ensuring adequate downstream flows. The lower Roanoke River basin is one of the finest remaining swamp forest ecosystems within the eastern United States. 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 probable correlation between fish kills and low dissolved oxygen in the lower Roanoke River basin and the operation of Kerr Reservoir. Resource concerns for the Lower Roanoke center on the need for restoration and enhancement of extensive swamp and flood plain forests and fisheries through improvements to the hydrologic regime. The State of North Carolina and the Commonwealth of Virginia are the sponsors and they understand the cost share requirements for the feasibility study. The reconnaissance report was approved in May 2001. The Feasibility Cost Sharing Agreement was signed on 17 June 2003.

Fiscal Year 2006 funds will be used to continue the feasibility phase of the study.

Fiscal year 2007 funds will be used to continue the feasibility phase including water quality, fish, wildlife, and sedimentation data collection and studies. The estimated cost of the feasibility phase is \$4,200,000, 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	\$4,375,000
Reconnaissance Phase (Federal)	175,000
Feasibility Phase (Federal)	2,100,000
Feasibility Phase (Non-Federal)	2,100,000

The reconnaissance phase was completed in June 2003. The feasibility study completion is to be determined.

6 February 2006

APPROPRIATION TITLE: General Investigations, Fiscal Year 2007
 Division: South Atlantic Division

Study	Total Estimated Federal Cost	Allocation Through FY 2003	Allocation FY 2004	Allocation FY 2005	Allocation FY 2006	Tentative Allocation FY 2007	Additional to complete After FY 2007
	\$	\$	\$	\$	\$	\$	\$
Georgia							
Long Island, Marsh, Johns Creeks, GA Mobile District	1,451,000	207,000	36,000	180,000	300,000	200,000	528,000

Long Island, Marsh and Johns Creeks are located within the metropolitan Atlanta watershed principally in Fulton County. Fulton County, Georgia has passed floodplain regulations, resolutions, or ordinances to restrict development in flood-prone areas; however, rapid urbanization prior to their passage resulted in the development of many areas subject to periodic flooding. Both scarcity of land and attractiveness of streamside areas contributed to encroachment on the floodplain. Local drainage patterns have also been greatly altered by the urbanization of the metropolitan area. At many locations, extensive storm drain systems have been used to substantially alter natural drainage patterns in order to remove water quickly. Rapid urbanization in the metropolitan Atlanta area over the last few decades has resulted in increases in the magnitude and frequency of severe floods; increased streambank erosion; depreciated water quality; a reduction in diversity and abundance of aquatic insects and fish; and destruction of wetlands, riparian buffers, and springs. The study will be conducted to develop portions of a comprehensive watershed plan for metropolitan Atlanta, including Long Island, Marsh and Johns Creeks. Development of portions of the master plan will be based on a thorough assessment of the changes in stream hydrology, morphology, water quality and habitat and ecology. Fulton County is the sponsor and understands the cost-share requirements of the feasibility phase. The Feasibility Cost Sharing Agreement was signed in May 2003 for Johns Creek. The Feasibility Cost Sharing Agreement was amended to include Long Island and Marsh Creeks in March 2004.

Fiscal Year 2006 funds are being used to continue the feasibility phase of the study.

Funds requested for Fiscal Year 2007 will be used to continue the feasibility phase. The preliminary estimated cost of the feasibility phase is \$2,600,000, which is to be cost-shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing follows:

Total Estimated Study Cost	\$2,751,000
Reconnaissance Phase (Federal)	151,000
Feasibility Phase (Federal)	1,300,000
Feasibility Phase (Non-Federal)	1,300,000

The reconnaissance phase was completed in May 2003. The feasibility study completion is to be determined.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2007
 Division: South Atlantic Division

Study	Total Estimated Federal Cost	Allocation Through FY 2003	Allocation For FY 2004	Allocation For FY 2005	Allocation FY 2006	Tentative Allocation FY 2007	Additional to complete After FY 2007
North Carolina	\$	\$	\$	\$	\$	\$	\$
Neuse River Basin Wilmington District	1,122,000	180,000	29,000	80,000	129,000	150,000	554,000

The study area is located in the eastern part of North Carolina. The Neuse River basin encompasses approximately 11 percent of the State of North Carolina 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 the city of Durham, and has a drainage area of approximately 5,710 square miles. The basin is primarily an agricultural region, but contains many small towns and several 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 (i.e., Neuse 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 (DO). Environmental restoration alternatives include stream restoration, anadromous fish habitat restoration, and oyster habitat restoration in the Neuse Estuary, part of Albemarle-Pamlico Nat'l Estuary. The secondary focus of this study is flood damage reduction. This entire area suffered significant damages as a result of Hurricane Floyd in 1999. Total flood damages were in excess of \$297,000,000. The sponsor is the North Carolina Department of Environment and Natural Resources and they understand the cost share requirements of the feasibility study. The Feasibility Cost Sharing Agreement was signed on 9 May 2002.

Fiscal Year 2006 funds will be used to continue the feasibility phase of the study.

Fiscal Year 2007 funds will be used to continue the feasibility phase including alternative evaluation. The preliminary estimated cost of the feasibility phase is \$2,000,000, 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	\$2,122,000
Reconnaissance Phase (Federal)	122,000
Feasibility Phase (Federal)	1,000,000
Feasibility Phase (Non-Federal)	1,000,000

The reconnaissance phase was completed in May 2002. The feasibility study completion is to be determined.

ENVIRONMENT
INVESTIGATIONS
SOUTH PACIFIC DIVISION

ILLUSTRATION A-2.4
PRECONSTRUCTION ENGINEERING AND DESIGN

APPROPRIATION TITLE: General Investigations, Fiscal Year 2007

South Pacific Division

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2004 \$	Allocation FY 2004 \$	Allocation FY 2005 \$	Allocation FY 2006 \$	Tentative Allocation FY 2007 \$	Additional to Complete After FY 2007 \$
PRECONSTRUCTION ENGINEERING AND DESIGN (PED) ACTIVITIES - (Ecosystem Restoration)							
Matilija Dam, CA Los Angeles District	6,000,000	0	0	101,000	792,000	400,000	4,707,000

The Ventura River drains approximately 223 square miles of Ventura County, California and outlets into the Pacific Ocean north of Ventura Harbor. The Matilija Dam Ecosystem Restoration Project will restore about 33 miles of river system to a more natural condition. The feasibility study was completed in FY 2005. A primary component of the project is the removal of the Matilija Dam to allow the endangered Steelhead to pass the dam site to historically pristine spawning and rearing habitat. Other benefits will be the removal of non-native vegetation and the restoration of a more natural river system, which will allow the river to scour and deposit sediments more naturally. This may also increase sand delivered to nearby beaches. The recommended project, estimated to cost \$128.6 million (October 2005 price levels) with an estimated Federal cost of \$80.1 million and an estimated non-Federal cost of \$48.5 million, includes construction of levees and flood walls to maintain the existing levels of flood protection, transportation and storage of select fine sediments to minimize turbidity concerns, removal of the Matilija Dam to restore a natural river process that supports a more natural ecosystem, contour of sediments upstream of the current dam site to minimize potential excessive sediment loads in flood events and accelerate a more natural river system, removal of non-native vegetation to encourage reestablishment of native vegetation, creation of enhanced and expanded recreation opportunities, construction of other features to support project goals, and will include an adaptive management program to assure project success. The project will result in the increase of 731 average annual habitat units. Ventura County Watershed Protection District, the local sponsor, signed a cost-sharing agreement in July 2005. 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 adjustment that may be necessary to bring the non-Federal contribution in line with the project cost share will be accomplished in the first year of construction.

Total Estimated Preconstruction Engineering and Design Costs	\$8,000,000	Total Estimated Preconstruction Engineering and Design Costs	\$8,000,000
Initial Federal Share	6,000,000	Ultimate Federal Share	5,200,000
Initial Non-Federal Share	2,000,000	Ultimate Non-Federal Share	2,800,000

Fiscal Year 2006 funds are being used to continue preconstruction engineering and design to include preparation of the Detailed Design Report and prepare the first set of plans and specifications.

Funds requested for Fiscal Year 2007 will be used to continue the Detailed Design Report and plans and specifications.

The project has not yet been authorized for construction. The cost sharing for the ecosystem restoration features will be 65 percent Federal and 35 percent non-Federal

in accordance with the Water Resources Development Act of 1996. Cost sharing for the recreation features will be 50/50. The desilting basin is 100% non-Federal expense. A completion date is to be determined for preconstruction engineering and design.

APPROPRIATION TITLE: General Investigations Fiscal Year 2007

South Pacific Division

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2004 \$	Allocation FY 2004 \$	Allocation FY 2005 \$	Allocation FY 2006 \$	Tentative Allocation FY 2007 \$	Additional to Complete After FY 2007 \$
New Mexico							
Middle Rio Grande Bosque Albuquerque District	1,425,000	400,000	195,000	72,000	247,000	200,000	311,000

The study will address ecosystem restoration and recreation needs within the Middle Rio Grande Basin. The Middle Rio Grande Basin is located in central New Mexico from Cochiti Reservoir to Elephant Butte Reservoir, some 180 miles south. The study area within the Middle Rio Grande Basin encompasses approximately 2500 acres of the Bosque along the Rio Grande, from Corrales, New Mexico, for approximately 19 miles through Albuquerque to the north boundary of the Isleta Pueblo. River flow regulation by Cochiti Dam upstream of the study area has changed the historical flow regime in the Rio Grande. Water is diverted from the river 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 provisions of the Endangered Species Act. The study will evaluate current conditions within the study area and make recommendations to improve environmental quality, reduce fire potential, and develop passive recreation opportunities. The Middle Rio Grande Conservancy District, the local sponsor, signed the Feasibility Cost Sharing Agreement in April 2004.

Fiscal Year 2006 funds are being used to continue the feasibility phase of the study to include hydrologic and hydraulic investigations, formulation, design and comparison of alternatives for environmental restoration, National Environmental Policy Act compliance activities, and continuation of the public involvement program.

The funds requested for Fiscal Year 2007 will be used to continue the feasibility phase of the study to include selection, design, and cost analysis of a recommended plan and continued coordination with stakeholders and the public. National Environmental Policy Act compliance will also continue.

The estimated cost of the feasibility phase is \$2,050,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Up to one hundred percent of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	\$2,450,000
Reconnaissance Phase (Federal)	400,000
Feasibility Phase (Federal)	1,025,000
Feasibility Phase (Non-Federal)	1,025,000

The reconnaissance phase was completed in April 2004. The feasibility study completion date is to be determined.

ILLUSTRATION A-2.4
PRECONSTRUCTION ENGINEERING AND DESIGN

APPROPRIATION TITLE: General Investigations, Fiscal Year 2007

South Pacific Division

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2004 \$	Allocation FY 2004 \$	Allocation FY 2005 \$	Allocation FY 2006 \$	Tentative Allocation FY 2007 \$	Additional to Complete After FY 2007 \$
PRECONSTRUCTION ENGINEERING AND DESIGN ACTIVITIES (PED) – (CONTINUING-Ecosystem Restoration)							
Napa River, Salt Marsh Restoration San Francisco District	750,000	0	0	0	124,000	300,000	326,000

The project is located approximately 30 miles northeast of the City of San Francisco, in unincorporated portions of Napa, Sonoma, and Solano Counties, California. This low-lying floodplain area has experienced a degradation of environmental resources. Human impacts, including dredged material disposal from the Federal channel, have destroyed most of the original wetlands in the area. 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. The recommended project will provide environmental protection and restoration in the area with emphasis on restoration of wetlands in the interest of providing habitat for estuarine fish, endangered species, migratory waterfowl and other wildlife. A feasibility report was completed in May 2004 and the Chief of Engineer's Report was signed December 2004. The recommended project, estimated to cost \$62.2 million (October 2005 price levels) with an estimated Federal cost of \$40.1 million and an estimated non-Federal cost of \$22.1 million, includes restoration of 4,500 acres of former salt production ponds to managed pond and tidal marsh habitat, construction of levee repairs and repair and refurbishment of water control structures and habitat restoration. The California Department of Fish and Game and the California State Coastal Conservancy, the local sponsors, have expressed support for the project, understand the cost-sharing requirements during preconstruction engineering and design and are prepared to execute a cost-sharing agreement scheduled for April 2006. 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 Preconstruction Engineering and Design Costs	\$1,000,000	Total Estimated Preconstruction Engineering and Design Cost	\$1,000,000
Initial Federal Share	750,000	Ultimate Federal Share	650,000
Initial Non-Federal Share	250,000	Ultimate Non-Federal Share	350,000

Fiscal Year 2006 funds are being used to initiate preconstruction engineering and design, conduct geotechnical investigations, design water control structures and undertake permit applications.

6 February 2006

Fiscal Year 2007 funds will be used to continue preconstruction engineering and design including completion of geotechnical stability analysis and prepare 60% designs.

The project is not yet authorized for construction. The cost-sharing for the ecosystem restoration features will be 65 percent Federal and 35 percent non-Federal in accordance with the Water Resources Development Act of 1996. Cost-sharing for the recreation features will be 50/50. A completion date is to be determined for the preconstruction engineering and design phase.

6 February 2006

ILLUSTRATION A-2.4
PRECONSTRUCTION ENGINEERING AND DESIGN

APPROPRIATION TITLE: General Investigations, Fiscal Year 2007

South Pacific Division

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2004 \$	Allocation FY 2004 \$	Allocation FY 2005 \$	Allocation FY 2006 \$	Tentative Allocation FY 2007 \$	Additional to Complete After FY 2007 \$
PRECONSTRUCTION ENGINEERING AND DESIGN (PED) ACTIVITIES – (Environmental)							
Rillito River, Pima County Los Angeles District	3,150,000	0	0	16,000	594,000	300,000	2,240,000

The Rillito River is located in Southeast Arizona within Pima County and flows through the city of Tucson, second largest city in Arizona. The project area encompasses about 500 acres along the river and between Craycroft and Campbell Ave. In Arizona, over 90 percent of riparian areas have been lost due to impacts from European settlement and urbanization. A feasibility report was completed in May 2004 and the Chief of Engineer's Report was signed in December 2004. The recommended project, estimated to cost \$75.2 million (October 2005 price levels) with an estimated Federal cost of \$48.4 million and an estimated non-Federal cost of \$26.8 million, includes: restoration of a significant ecosystem resource along the Pacific Flyway for neo-tropical birds, reconnect wildlife corridors, restore wildlife habitat for species significant to Pima County, provide potential habitat for threatened and endangered species, and restore about 391 acres of habitat, 4.8-mile reach of threatened plant communities of cottonwood/willow riparian forest, seasonal cienega, Mesquite Bosque, and five years of monitoring and adaptive management necessary to ensure success of the project. The Pima County, Arizona, Flood Control District, the local sponsor, expressed support for the project in April 2004, understands the cost-sharing requirements during preconstruction engineering and design and is prepared to execute a cost-sharing agreement scheduled for March 2006. 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 Preconstruction Engineering and Design Costs \$4,200,000 Initial Federal Share 3,150,000 Initial Non-Federal Share 1,050,000	Total Estimated Preconstruction Engineering and Design Costs \$4,200,000 Ultimate Federal Share 2,730,000 Ultimate Non-Federal Share 1,470,000
--	---

Fiscal Year 2006 funds are being used to continue preconstruction engineering and design, execute the design agreement, conduct a Value Engineering study, and initiate the Detailed Design Report.

Funds requested for Fiscal Year 2007 will be used to continue preconstruction engineering and design, complete 30% of the Detailed Design Report, and initiate plans and specifications.

6 February 2006

The project is not yet authorized for construction. The cost-sharing for the ecosystem restoration features will be 65 percent Federal and 35 percent non-Federal in accordance with the Water Resources Development Act of 1996. Cost-sharing for the recreation features will be 50/50. A completion date is to be determined for the preconstruction engineering and design phase.

6 February 2006

ILLUSTRATION A-2.4
PRECONSTRUCTION ENGINEERING AND DESIGN

APPROPRIATION TITLE: General Investigations, Fiscal Year 2007

South Pacific Division

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2004 \$	Allocation FY 2004 \$	Allocation FY 2005 \$	Allocation FY 2006 \$	Tentative Allocation FY 2007 \$	Additional to Complete After FY 2007 \$
PRECONSTRUCTION ENGINEERING AND DESIGN (PED) ACTIVITIES - (Environmental)							
Va Shly-Ay Akimel Salt River Los Angeles District	3,750,000	0	0	110,000	396,000	200,000	3,044,000

The Va Shly-Ay Akimel (pronounced va sha lay akmel) project area is located along approximately 14 miles of the Salt River in Arizona. The project area encompasses about 17,435 acres and approximately 2 miles wide downstream of the Granite Reef Dam to the Pima Freeway (SR101). The City of Mesa borders the south side of the area. The area along the river is severely degraded and has sustained a very large loss of riparian habitat. A feasibility report was completed in September 2004 and the Chief of Engineer's Report was signed January 2005. The recommended project, estimated to cost \$142.9 million (October 2005 price levels) with an estimated Federal cost of \$92.7 million and an estimated non-Federal cost of \$50.2 million includes restoring and improving 1,485 acres of habitat including four nationally significant habitat types; Cottonwood-Willow, Wetlands including River Bottom, Mesquite, and Sonoran Desert Shrub, one grade control structure, water delivery systems, and re-grading of the river for revegetation. The plan provides restoration benefits of 1,006 average annual functional capacity units (AAFCU), which results in an average annual cost per AAFCU of \$10,100. The project will provide benefits to the habitat for important bird species including the Yuma clapper rail, southwestern willow flycatcher, cactus ferruginous pygmy owl, California brown pelican, and bald eagle. The Salt River Pima Maricopa Indian Community and the City of Mesa, the local sponsors, expressed support for the project in April 2004, understand the cost-sharing requirements during preconstruction engineering and design, and are prepared to execute a cost-sharing agreement scheduled for February 2006. 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 Preconstruction Engineering and Design Costs	\$5,000,000	Total Estimated Preconstruction Engineering and Design Costs	\$5,000,000
Initial Federal Share	3,750,000	Ultimate Federal Share	3,250,000
Initial Non-Federal Share	1,250,000	Ultimate Non-Federal Share	1,750,000

6 February 2006

Fiscal Year 2006 funds are being used to continue preconstruction engineering and design, execute the design agreement, initiate design, conduct a Value Engineering study, and Geotechnical Investigations.

Funds requested for Fiscal Year 2007 will be used to continue preconstruction engineering and design to include preparation of the first set of plans and specifications.

The project is not yet authorized for construction. The cost-sharing for the ecosystem restoration features will be 65 percent Federal and 35 percent non-Federal in accordance with the Water Resources Development Act of 1996. Cost-sharing for the recreation features will be 50/50. A completion date is to be determined for the preconstruction engineering and design phase.

ENVIRONMENT
INVESTIGATIONS
SOUTHWESTERN DIVISION

ILLUSTRATION A-2.2
COST-SHARED FEASIBILITY STUDY

APPROPRIATION TITLE: General Investigations, Fiscal Year 2007

Southwestern Division

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2003 \$	Allocation FY 2004 \$	Allocation FY 2005 \$	Allocation FY 2006 \$	Tentative Allocation FY 2007 \$	Additional to Complete After FY 2007 \$
Guadalupe and San Antonio River Basins, Texas Fort Worth/Galveston Districts	7,577,000	1,175,000	287,000	663,000	495,000	300,000	4,657,000

The study area of the Guadalupe and San Antonio River Basin intersects the Edwards Plateau ecological region in south central Texas and extends approximately 110 miles southeasterly from the headwaters in Kerr and Bandera Counties, to the Gulf of Mexico in Refugio and Calhoun Counties. The Guadalupe Basin has a drainage area of 6,700 square miles, and the San Antonio River Basin 4,180 square miles. Flooding within various portions of the Guadalupe and San Antonio River basins was severe in 1972, 1978 and 1997 when portions of the river basins were declared disaster areas. In October 1998, one of the largest of all recent flood events within the region accounted for at least 31 deaths and caused damages estimated to be \$800 million. Many communities experienced inundation to rooftop levels, with water velocities great enough to completely demolish brick homes. Flooding again plagued the region with a near 500-year event in July 2002. Nine deaths occurred and more than 45,000 homes were damaged or destroyed by floodwaters with property damage estimates of \$1 billion. During the most recent flood event in June 2004, another three lives were lost and the flooding had a negative impact on the tourism industry, a major generator of income in this area. The study consists of an investigation of the Guadalupe and San Antonio River Basins to address improvements in the interest of flood damage reduction, environmental restoration, water quality, water supply, recreation and other allied purposes. In response to Texas Senate Bill 1, alternatives to enhance water supply would include recharge to the Edwards Aquifer. Such alternatives, if adopted, could provide dual benefits of ecosystem restoration and water supply. Both structural and nonstructural solutions are being investigated. There are currently five on-going interim studies (Cibolo Creek, Leon Creek, Salado Creek, Alamo Heights and the Lower San Antonio River Basin) and one other scheduled interim study (Lower Guadalupe River Basin) within the Guadalupe-San Antonio River watershed. The Cibolo Creek, Leon Creek, and Salado Creek interim studies are multipurpose studies addressing flood damage reduction, ecosystem restoration, water quality and water supply. The Alamo Heights Interim Feasibility Study is focused on flood damage reduction with a secondary interest in ecosystem restoration. These four interim studies are budgeted under the Guadalupe and San Antonio River Basin, Texas, line item and are being conducted by the Fort Worth District. The Lower San Antonio River Basin (Tri-County), Texas, study is budgeted under its own line item and is being conducted by the Fort Worth District. The Lower Guadalupe Basin Interim Feasibility Study is budgeted and is being conducted by the Galveston District.

Fiscal Year 2006 funds are being used to develop alternatives to address the flooding and ecosystem issues in the Cibolo Creek study; complete existing conditions hydrology and hydraulic models, water quality models and sediment transport models for Leon Creek Interim Feasibility Study; and develop existing conditions hydrology and hydraulics models for the Salado Creek and Alamo Heights Interim Feasibility Studies.

Fiscal Year 2007 will be used for detailed analysis of final alternatives in the Cibolo Creek Interim Feasibility Study, complete the existing conditions phases of the Leon Creek and Alamo Heights Interim Feasibility Studies and complete the existing conditions hydrology and hydraulics for the Salado Creek Interim Feasibility Study. The preliminary estimated cost of the overall feasibility study is \$14,082,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal

Guadalupe and San Antonio River Basins, Texas (continued)
Fort Worth/Galveston Districts

interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	\$14,618,000
Reconnaissance Phase (Federal)	536,000
Feasibility Phase (Federal)	7,041,000
Feasibility Phase (Non-Federal)	7,041,000

The Cibolo Creek and the Leon Creek Interim Feasibility Studies completion date is to be determined. The Alamo Heights Interim Feasibility Study completion date is to be determined. The Salado Creek Interim Feasibility Study completion date is to be determined. The overall feasibility study completion date is to be determined.

ILLUSTRATION A-2.2
COST-SHARED FEASIBILITY STUDY

APPROPRIATION TITLE: General Investigations, Fiscal Year 2007

Southwestern Division

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2003 \$	Allocation FY 2004 \$	Allocation FY 2005 \$	Allocation FY 2006 \$	Tentative Allocation FY 2007 \$	Additional to Complete After FY 2007 \$
Lower Colorado River Basin, TX Fort Worth/Galveston Districts	8,144,000	3,593,000	820,000	1,116,000	594,000	300,000	1,721,000

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 northern most 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 Texas metropolitan areas within the study boundaries are Austin, Bastrop, Bay City, Columbus, LaGrange, Marble Falls and Wharton. 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. A major component of the basin is the Onion Creek watershed, which originates in Blanco County, continues through Hays County, and then into Travis County, where the creek flows into the Colorado River. Onion Creek is the largest creek within the rapidly growing urban area of Austin, Texas, with a drainage area of 343 square miles, collecting flows from Williamson, Slaughter, Bear, Little Bear, Rinard, South Boggy, Marble and Cottonmouth Creeks and their tributaries. The creek has a long history of flooding dating back to 1869 and most recently in 1981, 1991, 1998, 2001, 2002 and 2004. The flooding along Onion Creek in November 2001 was near the flood of record, which was in 1921. The city of Wharton was declared a disaster area in the most recent flood events of October 1998 and September 2002. Eleven flood events have occurred since 1900, resulting in extensive flood damages and the loss of seven lives. Flows in excess of the 100-year, (one percent chance) event have occurred on two separate occasions, while the 50-year (two percent chance) event has occurred on two other occasions. Recent flooding in November 2004, caused extensive flooding throughout the city of Wharton. Onion Creek, Shoal and Walnut Creeks, the Highland Lakes and the city of Wharton have experienced increased flooding and alterations to wildlife habitat. An Information Paper, dated October 2003, documents the studies that were conducted during Phase 1 of this study. This study effort focused on identifying the problems, needs and opportunities of the basin. 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 previously identified interim feasibility studies, there are sites which await the identification of a cost sharing sponsor. Interim feasibility studies of Onion Creek, the city of Wharton and the Highland Lakes are presently being conducted concurrently. Interim studies for Shoal and Walnut Creeks in Austin are also scheduled to be conducted under the Lower Colorado River Basin Study. The Lower Colorado River Authority is the local sponsor for the feasibility study and acts on behalf of the cities of Austin, Sunset Valley, and Wharton, Travis County, and other entities identified during the course of the interim studies.

Lower Colorado River Basin, TX (continued)
Fort Worth/Galveston Districts

Fiscal Year 2006 funds are being used to complete the Programmatic Environmental Impacts Statement for the Lower Colorado River basin, to complete the draft interim feasibility reports for the Onion Creek and Wharton Interim Feasibility Studies, and to complete the preliminary draft feasibility report for the Highland Lakes Interim Feasibility Study.

Fiscal Year 2007 funds will be used to complete the final Interim Feasibility Reports for both the Onion Creek and Wharton, Texas studies, and to complete the Draft Interim Feasibility Report for the Highland Lakes Interim Feasibility Study.

The estimated cost of the overall feasibility study is \$16,038,000, 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	\$ 16,163,000
Reconnaissance Phase (Federal)	125,000
Feasibility Phase (Federal)	8,019,000
Feasibility Phase (Non-Federal)	8,019,000

The completion date for the interim feasibility study for Onion Creek is February 2007 and for Wharton is March 2007. The schedule for completion of the Highland Lakes Interim Feasibility Study and for the overall feasibility study is to be determined.

ILLUSTRATION A-2.2
COST-SHARED FEASIBILITY STUDY

APPROPRIATION TITLE: General Investigations, Fiscal Year 2007

Southwestern Division

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2003 \$	Allocation FY 2004 \$	Allocation FY 2005 \$	Allocation FY 2006 \$	Tentative Allocation FY 2007 \$	Additional to Complete After FY 2007 \$
Nueces River and Tributaries, Texas Fort Worth and Galveston Districts	6,001,000	159,000	43,000	397,000	495,000	250,000	4,657,000

The Nueces River Basin lies in the southern part of Texas. The Nueces River Basin has an overall length of approximately 235 miles, a maximum width of 115 miles, and has 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 Frio River is a principal tributary and drains the northeast portion of the Nueces River Basin. The Edwards Plateau, a major source of water for the San Antonio and Bexar County metropolitan areas, accounts for about 20 percent of the basin and is recognized to have high potential for ground water recharge. Historic land use practices, drought and poor water resource management have resulted in significant environmental degradation. The lack of fresh-water inflows into the Nueces Bay has resulted in hyper-saline conditions that have severely diminished the habitat suitability of approximately 20,000 acres of the Nueces delta area. Additionally, existing surface and ground water sources are not sufficient to assure an adequate water supply to fulfill future needs. Recent floods in 1998 and 2002 resulted in significant property and infrastructure damages. The 905(b) reconnaissance report, completed in December 2002, identified Federal interest in evaluating opportunities in the study area for ecosystem restoration, water quality, water supply, flood damage reduction, recreation, and other allied purposes. The study sponsors are the Nueces River Authority, San Antonio Water System, San Antonio River Authority, Guadalupe-Blanco River Authority and city of Corpus Christi, Texas. The Feasibility Cost Sharing Agreement was signed on 24 September 2004.

Fiscal Year 2006 funds are being used to develop existing conditions, identify data collection needs and gaps and continue ecologic and hydrologic and hydraulic model updates.

Fiscal Year 2007 funds will be used to complete existing conditions, identify future with and without project conditions, and begin preliminary formulation of alternatives. 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, Texas, feasibility study is to be determined.

ILLUSTRATION A-2.2
COST-SHARED FEASIBILITY STUDY

APPROPRIATION TITLE: General Investigations, Fiscal Year 2007

Southwestern Division

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2003 \$	Allocation FY 2004 \$	Allocation FY 2005 \$	Allocation FY 2006 \$	Tentative Allocation FY 2007 \$	Additional to Complete After FY 2007 \$
Rio Grande Basin, Texas Fort Worth/Galveston/Albuquerque Districts	1,107,000	131,000	45,000	40,000	148,000	50,000	693,000

The Rio Grande Basin is located in the states of Colorado, New Mexico and Texas, and encompasses an area of over 160,000 square miles, from the headwaters of the Rio Grande in central Colorado to its mouth on the Gulf of Mexico near Brownsville, Texas. The study area includes the Rio Grande Basin within the state of Texas. The reconnaissance study identified ecosystem degradation, flooding, and water conveyance and delivery as major issues in the basin. River flow regulation by two major international dams, Falcon and Amistad, for flood control and water delivery on the main stem has changed the historical flow regime of the Rio Grande. The overall basin study will evaluate current conditions and make recommendations for improving water management in the Rio Grande Basin in order to restore aquatic habitat, improve water quality and reduce flood damages. Additionally, there is a need to improve reliability of future municipal, industrial, and agricultural water supplies in accordance with international treaty requirements, and a need to dedicate water for items such as low flow releases, restoration of fish and wildlife habitat, and protection of endangered species such as ocelot, jaguarundi, bald eagle, least interior tern, brown pelican and peregrine falcon. The study will identify ways to integrate the programs, policies, and resources of all concerned agencies into a multi-objective water resources plan. This study is being closely coordinated with the International Boundary and Water Commission and the stakeholder members of the Consortium of the Rio Grande in accordance with the Memorandum of Agreement signed with Federal agencies and the Consortium of the Rio Grande as part of the American Heritage Rivers Initiative. The interim feasibility study for the city of Laredo in Webb County, conducted by the Fort Worth District, will focus on Chacon Creek. Laredo is a major port of entry for international trade and tourism between the United States and Mexico. The Federal Cost Sharing Agreement was signed in July 2004 and will evaluate significant and recurrent flooding and within the city of Laredo along Chacon Creek from Casa Blanca Lake to its mouth on the Rio Grande. Development has caused significant changes in the hydrology and hydraulics resulting in an increase of the flood threat to 240 homes and 33 businesses along Chacon Creek. The study will also evaluate ecosystem degradation, passive recreation, and water management opportunities.

Fiscal Year 2006 funds are being used to complete existing conditions hydrologic and hydraulic models, estimate damages and initiate the screening of alternatives.

Fiscal Year 2007 funds will be used to develop and evaluate structural and nonstructural flood damage reduction measures and identify the National Economic Development Plan. The estimated cost of the Laredo Interim Feasibility Study is \$1,880,000, 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	\$2,047,000
Reconnaissance Phase (Federal)	167,000
Feasibility Phase (Federal)	940,000
Feasibility Phase (Non-Federal)	940,000

Rio Grande Basin, Texas (continued)
Fort Worth/Galveston/Albuquerque Districts

The completion date for the Laredo Interim Feasibility Study is to be determined. The completion date for the Rio Grande Basin, Texas, feasibility study is to be determined.

ILLUSTRATION A-2.2
COST-SHARED FEASIBILITY STUDY

APPROPRIATION TITLE: General Investigations, Fiscal Year 2007

Southwestern Division

Study	Total Estimated Federal Cost \$	Allocation Thru FY 2003 \$	Allocation FY 2004 \$	Allocation FY 2005 \$	Allocation FY 2006 \$	Tentative Allocation FY 2007 \$	Additional to Complete After FY 2007 \$
Sabine Pass to Galveston Bay, Texas Galveston District	2,531,000	871,000	289,000	358,000	743,000	270,000	0

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 nationally significant 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 and thus protect nationally significant wetlands and other resources. 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. 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 2006 funds are being used to complete hydraulic modeling for Lowered Dune Profiles (Jan 06), Wave Analysis of Borrow Sites (Feb 06). Activities will also include alternative analysis and optimization studies along West Galveston Island (Mar 06), design optimization for West Galveston Island (Apr 06), design optimization for Bolivar Peninsula (May 06), and design optimization for Jefferson County (Jun 06).

Fiscal Year 2007 funds will be used to evaluate model results, analyze alternatives, and document final recommendations in the final Feasibility Report and Environmental Impact Statement.

The preliminary estimated cost of the feasibility phase is \$4,892,000, which will 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	\$4,977,000
Reconnaissance Phase (Federal)	85,000
Feasibility Phase (Federal)	2,446,000
Feasibility Phase (non-Federal)	2,446,000

The scheduled completion date of the feasibility phase of the study is March 2007.

ILLUSTRATION A-2.2
COST-SHARED FEASIBILITY STUDY

APPROPRIATION TITLE: General Investigations, Fiscal Year 2007

Southwestern Division

Study	Total Estimated Federal Cost \$	Allocation Thru FY 2003 \$	Allocation FY 2004 \$	Allocation FY 2005 \$	Allocation FY 2006 \$	Tentative Allocation FY 2007 \$	Additional to Complete After FY 2007 \$
Springfield, MO Little Rock District	1,600,000	100,000	153,000	372,000	371,000	250,000	354,000

The study area is along Jordan and Wilson Creeks in the heart of the City of Springfield, Missouri. Jordan Creek is an urban stream that was channelized in the 1930's. It includes vertical wall concrete channels with a downtown portion being underground culverts. Development in the basin has increased flood flows. The capacity of the channel to carry flows is exceeded by floods greater than a 10-year event that damage businesses, industry, residential, utilities, and transportation. The most recent large flood occurred in July 2000; it was estimated to be a 100-year event. The value of structures in the 500-year flood plain is estimated at \$75,000,000. In addition to flood damage reduction, ecosystem restoration to previously developed lands and potential hazardous sites in the flood plain are to be investigated. Wetland creation and fishery habitat will be considered in areas that now or previously had railroad yards, concrete plants and other development. An estimated area of 362 acres could be restored. Possible solutions to water resource problems include non-structural flood damage measures, development of environmental and floodplain buffer zones along the river, creation of floodplain overflow wetlands, channel modification or clearing and snagging to improve channel capacities, and combinations of those alternatives. The City of Springfield, Missouri, is the local sponsor and understands cost sharing requirements.

Fiscal Year 2006 funds are being used to continue the feasibility study phase with the development of modified plans. The funds requested for Fiscal Year 2007 will be used to continue the feasibility phase with computation of quantities and plan cost estimates. The estimated cost of the feasibility phase is \$3,000,000, 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	\$3,100,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	1,500,000
Feasibility Phase (Non-Federal)	1,500,000

The reconnaissance phase was completed 12 May 2004 with the execution of the Feasibility Cost Sharing Agreement with the city of Springfield, Missouri. The completion date for the feasibility phase of the study is to be determined.

ILLUSTRATION A-2.2
COST-SHARED FEASIBILITY STUDY

APPROPRIATION TITLE: General Investigations, Fiscal Year 2007

Southwestern Division

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2003 \$	Allocation FY 2004 \$	Allocation FY 2005 \$	Allocation FY 2006 \$	Tentative Allocation FY 2007 \$	Additional to Complete After FY 2007 \$
Walnut and White River Watersheds, Kansas Tulsa District	655,000	241,00	28,000	99,000	198,000	80,000	9,000

The Walnut River Basin covers about 2,000 square miles in southeastern Kansas. The Walnut River combines with the Arkansas River at Arkansas City, which flows across the Kansas-Oklahoma State Line within about 10 miles of Arkansas City. The city of Wichita is located immediately west of the basin. The US Fish and Wildlife Service (USFWS) estimate that Kansas has lost almost 50 percent of its wetlands since the 1980's, with the vast majority of the losses since 1950. The loss of these wetlands means urban and rural runoff previously "filtered naturally" before entering a watercourse now enters the stream directly. The result of past and continuing losses is both a reduction in area and ecological system viability due to fragmentation. Some of the measurable losses include wildlife density, reductions in animal and plant species, and significant reductions in water quality. At the request of the local sponsors, the feasibility effort is focused on a 230 square mile watershed impounded by El Dorado Lake. The sponsors are the Kansas Water Office, Kansas Water Authority, and the city of El Dorado. Study efforts include addressing opportunities to reduce sedimentation in El Dorado Lake and meet the watershed total daily maximum load (TMDL) issues of sediment and eutrophication for the purpose of preserving existing water supply storage; and to restore riparian and aquatic habitat and ecosystem function in the lake and upstream watershed. About a dozen state and Federal Environmental Agencies are participating as team members in the feasibility study. The feasibility study is identifying ecosystem resources, evaluating the system qualities, determining past losses and current needs, and evaluating potential restoration and preservation measures. Justified collections of measures found to be warranted and acceptable to the sponsor and the Federal government will be recommended for implementation. In part this plan will allow monitoring of implemented restoration measures, which will provide opportunities to revise and improve the application of standard best management practices for this basin application. After an initial review of the Walnut River Basin, the study focus was shifted to an area of greatest concern, the El Dorado Lake watershed which has eutrophication and sedimentation priority concerns. The Feasibility Cost Sharing Agreement was executed in November 2001.

Fiscal Year 2006 funds are being used to continue the feasibility phase formulation efforts including geo-referencing scans and vectorizing images for GIS use, sedimentation projections, and identification of problem areas in the watershed.

Funds requested for Fiscal Year 2007 will be used to complete feasibility phase formulation and environmental documentation. The preliminary estimated cost of the feasibility phase is \$1,110,000, which is shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Walnut and White River Watersheds, Kansas (continued)
Tulsa District

Total Estimated Study Cost	\$1,210,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	555,000
Feasibility Phase (Non-Federal)	555,000

The reconnaissance phase was completed in November 2001. The completion date for the feasibility phase of the study is to be determined.

ENVIRONMENT
INVESTIGATIONS
MISSISSIPPI RIVER AND TRIBUTARIES

APPROPRIATION TITLE: Flood Control, Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO, and TN - General Investigations, Fiscal Year 2007

Study	Total Estimated Federal Cost \$	Allocation To FY 2003 \$	Allocation for FY 2004 \$	Allocation for FY 2005 \$	Allocation for FY 2006 \$	Allocation Requested for FY 2007 \$	Additional to Complete After FY 2007 \$
LOUISIANA							
Atchafalaya Basin Floodway System Land Study, Louisiana New Orleans District	300,000	0	0	0	0	100,000	200,000

The study area includes the Atchafalaya Basin Floodway System positioned between the west Atchafalaya Basin Levee and the east Atchafalaya Basin Levee from Simmesport, Louisiana at the north to below Morgan City, Louisiana to the south. The purpose of the study is to investigate further needs and opportunities in the acquisition of fee and easement lands for floodplain management and aquatic ecosystem restoration purposes beyond the amount of land authorized for acquisition in the Supplemental Appropriations Act of 1985, Public Law 99-88 and WRDA of 1986, Public Law 99-662 which authorized the Atchafalaya Basin Floodway System Project, Louisiana. Because land acquisition is an important component of the overall flood damage reduction plan for the watershed, this study has a high priority. The study also will explore whether the acquisition of fee title is, or is not, preferable to the acquisition of easements.

Funds requested for Fiscal Year 2007 will be used for developing a project management plan and significantly advancing the reconnaissance study. The reconnaissance study is scheduled for completion in 18 months.

CONSTRUCTION

ENVIRONMENT
CONSTRUCTION
MISSISSIPPI VALLEY DIVISION

APPROPRIATION TITLE: Construction, General – 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. All work is programmed.

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; and the Water Resources Development Act of 1999, P.L. 106-53, Section 509.

REMAINING BENEFIT-REMAINING COST: The remaining benefit-remaining cost ratio for the entire project is not applicable because monetary benefits are not quantified.

TOTAL BENEFIT-COST RATIO: The total benefit-cost ratio for the entire project is not applicable because monetary benefits are not quantified. 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 quantified.

BASIS OF BENEFIT-COST RATIO: The basis for the benefit-cost ratio for the entire project is not applicable because monetary benefits are not quantified.

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST
Estimated Federal Cost		\$ 766,195,000
Estimated Non-Federal Cost		8,204,000
Cash Contribution	\$ 8,204,000	
Other Costs	0	
Total Estimated Project Cost		\$ 774,399,000
Allocations to 30 September 2003		\$ 247,039,000
Allocation for FY 2004		14,782,000
Allocation for FY2005		15,547,000
Conference Allowance for FY 2006		20,000,000
Allocation for FY 2006		19,800,000 1/
Allocations to 30 September 2006		297,168,000 39
Allocation Requested for FY 2007		\$ 26,800,000 42
Programmed Balance to Complete After FY 2007		\$442,227,000
Unprogrammed Balance to Complete After FY 2007		0

1/ Reflects \$200,000 rescission in accordance with the Department of Defense, Emergency Supplemental Appropriations to Address Hurricanes in the Gulf of Mexico, and Pandemic Influenza Act, 2006.

STATUS: (1 January 2006)

PERCENT COMPLETE PHYSICAL COMPLETION SCHEDULE ^{1/}

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	75	Dec 09
Calhoun Point, IL	ST. LOUIS DISTRICT	65	Oct 07
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	TBD
Godar, IL	ST. LOUIS DISTRICT	1	TBD
Jefferson Barracks Side Channel	ST. LOUIS DISTRICT	0	Deferred
Least Tern, MO	ST. LOUIS DISTRICT	22	Deferred
Norton Woods, MO	ST. LOUIS DISTRICT	0	Deferred
Pharrs Island, Phase I, MO	ST. LOUIS DISTRICT	100	(Jun 92)
Pools 25 and 26, MO	ST. LOUIS DISTRICT	26	Nov 08
Reds Landing, IL	ST. LOUIS DISTRICT	0	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	Deferred
Stone Dike Alteration, IL/MO	ST. LOUIS DISTRICT	10	Deferred
Swan Lake, IL	ST. LOUIS DISTRICT	99	Dec 08
Ted Shanks, MO	ST. LOUIS DISTRICT	1	Jun 11
Wilkinson Island, IL	ST. LOUIS DISTRICT	1	TBD
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	2	TBD
Bertom Lake, WI	ROCK ISLAND DISTRICT	100	(Jun 92)
Big Timber, IA	ROCK ISLAND DISTRICT	100	(Jun 95)
Brown's Lake, IA	ROCK ISLAND DISTRICT	100	(Sep 94)

Mississippi Valley Division

Rock Island District
6 February 2006

Upper Mississippi River Restoration,
Illinois, Iowa, Minnesota,
Missouri, and Wisconsin

STATUS: (1 January 2006) (Continued)

		PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE ^{1/}
Chautauqua Refuge, IL	ROCK ISLAND DISTRICT	100	(Dec 03)
Cottonwood Island, MO	ROCK ISLAND DISTRICT	100	(Dec 99)
Fox Island, MO	ROCK ISLAND DISTRICT	15	Sep 08
Gardner Div., IL	ROCK ISLAND DISTRICT	99	TBD
Huron Island, IA	ROCK ISLAND DISTRICT	5	TBD
Lake Odessa, IA	ROCK ISLAND DISTRICT	20	Sep 09
Pool 11 Islands, WI/IA	ROCK ISLAND DISTRICT	95	TBD
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	10	Sep 11
Potters Marsh, IL	ROCK ISLAND DISTRICT	100	(Jun 96)
Princeton, IA	ROCK ISLAND DISTRICT	100	(Dec 01)
Rice Lake, IL	ROCK ISLAND DISTRICT	16	Oct 09
Smith's Creek, IA	ROCK ISLAND DISTRICT	9	Deferred
Spring Lake, IL	ROCK ISLAND DISTRICT	100	(Sep 01)
Ambrough Slough, WI	ST. PAUL DISTRICT	100	(Sep 04)
Blackbird Slough, MN	ST. PAUL DISTRICT	0	Deferred
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 07
Cold Springs, WI	ST. PAUL DISTRICT	100	(Aug 94)
Conway Lake, IA	ST. PAUL DISTRICT	10	TBD
East Channel, WI, MN	ST. PAUL DISTRICT	100	(Jun 97)
Finger Lakes, MN	ST. PAUL DISTRICT	100	(Jul 94)
Guttenberg Fish Ponds, IA	ST. PAUL DISTRICT	100	(Oct 90)
Harpers Slough, WI	ST. PAUL DISTRICT	20	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	5	TBD
Lansing Big Lake, IA	ST. PAUL DISTRICT	100	(Nov 94)
Long Lake, WI	ST. PAUL DISTRICT	100	(May 00)

Mississippi Valley Division

Rock Island District
6 February 2006

Upper Mississippi River Restoration,
Illinois, Iowa, Minnesota,
Missouri, and Wisconsin

STATUS: (1 January 2006) (Continued)		PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE ¹
Long Meadow Lake, MN	ST. PAUL DISTRICT	95	TBD
McGregor, IA	ST. PAUL DISTRICT	1	TBD
Miss. River Bank Stabilization, MN/WI	ST. PAUL DISTRICT	100	(Sep 99)
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 9 Isl Protection, WI	ST. PAUL DISTRICT	100	(Jun 95)
Pool 8 Isl, Phase III, WI	ST. PAUL DISTRICT	30	Sep 10
Pool Slough, IA/MN	ST. PAUL DISTRICT	80	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	60	Jan 07
Trempealeau NWR, WI	ST. PAUL DISTRICT	100	(Sep 99)
Whitewater River, MN	ST. PAUL DISTRICT	2	Deferred
Zumbro River, WI Recreation	ST. PAUL DISTRICT	1	TBD
Habitat Needs Assessment		0	Unscheduled
		100	(Sep 00)

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. 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.

¹ Parentheses indicate actual date.

FISCAL YEAR 2006: Current year funds are being used as follows:

PROJECT	DISTRICT	AMOUNT	STATUS
Calhoun Point Stg II, IL	ST. LOUIS DISTRICT	\$ 3,300,000	Construction
Godar, IL	ST. LOUIS DISTRICT	60,000	Definite Project Report
Pool 25 and 26, MO	ST. LOUIS DISTRICT	80,000	Design
Salt Lake/Ft Chartres SC, IL	ST. LOUIS DISTRICT	110,000	Design
Swan Lake, IL	ST. LOUIS DISTRICT	100,000	Construction
Ted Shanks, MO	ST. LOUIS DISTRICT	100,000	Design
Wilkinson Island, IL	ST. LOUIS DISTRICT	100,000	Design
Beaver Island, IA	ROCK ISLAND DISTRICT	125,000	Definite Project Report
Huron Island, IA	ROCK ISLAND DISTRICT	125,000	Definite Project Report
Lake Odessa Stg 1, IA (Option)	ROCK ISLAND DISTRICT	4,400,000	Construction
Pool 11 Stg 2, WI	ROCK ISLAND DISTRICT	842,000	Construction
Pool 12 Overwintering, IL	ROCK ISLAND DISTRICT	53,000	Definite Project Report
Rice Lake, IL	ROCK ISLAND DISTRICT	50,000	Definite Project Report
Capoli Slough, WI	ST. PAUL DISTRICT	150,000	Design
Conway Lake, IA	ST. PAUL DISTRICT	150,000	Design
Harpers Slough, WI	ST. PAUL DISTRICT	150,000	Design
Lake Winneshiek, WI	ST. PAUL DISTRICT	150,000	Design
Long Meadow Lake, MN	ST. PAUL DISTRICT	460,000	Construction
Pool 8 Phase III, Stg 1, WI	ST. PAUL DISTRICT	650,000	Construction
Pool 8 Phase III, Stg 2A, WI	ST. PAUL DISTRICT	330,000	Construction
Pool Slough, IA	ST. PAUL DISTRICT	260,000	Construction
Spring Lake Islands, WI	ST. PAUL DISTRICT	1,630,000	Construction
Habitat Evaluation/Monitoring		500,000	
Public Involvement		50,000	
Long Term Resource Monitoring		5,400,000	
Independent Technical Review Committee		75,000	
Program Management		400,000	
TOTAL		\$ 19,800,000	

FISCAL YEAR 2007: The requested amount will be used to continue projects under way in FY 2006 and to continue monitoring and other restoration-related activities, as follows:

PROJECT	DISTRICT	AMOUNT	STATUS
Batchtown Mgmt Area III, IL	ST. LOUIS DISTRICT	\$ 2,997,000	Construction
Pool 25 and 26, MO	ST. LOUIS DISTRICT	500,000	Construction
Swan Lake, IL	ST. LOUIS DISTRICT	500,000	Construction
Wilkinson Island, IL	ST. LOUIS DISTRICT	84,000	Design
Beaver Island, IA	ROCK ISLAND DISTRICT	300,000	Design
Fox Island, MO	ROCK ISLAND DISTRICT	260,000	Construction
Huron Island, IA	ROCK ISLAND DISTRICT	300,000	Design
Lake Odessa Stg 1, IA (Options)	ROCK ISLAND DISTRICT	2,000,000	Construction
Lake Odessa Stg 2, IA	ROCK ISLAND DISTRICT	1,372,000	Construction
Rice Lake, IL	ROCK ISLAND DISTRICT	1,800,000	Construction
Capoli Slough, WI	ST. PAUL DISTRICT	207,000	Construction
Conway Lake, IA	ST. PAUL DISTRICT	100,000	Design
Harpers Slough, WI	ST. PAUL DISTRICT	566,000	Design
Lake Winneshiek, WI	ST. PAUL DISTRICT	100,000	Design
McGregor, IA	ST. PAUL DISTRICT	150,000	Design
Pool 8 Phase III, Stg 2B, WI	ST. PAUL DISTRICT	3,992,000	Construction
Pool Slough, IA	ST. PAUL DISTRICT	25,000	Construction
Spring Lake Islands, WI	ST. PAUL DISTRICT	25,000	Construction
Zumbro River, WI	ST. PAUL DISTRICT	50,000	Design
Habitat Evaluation/Monitoring		600,000	
Public Involvement		25,000	
Long Term Resource Monitoring		7,287,000	
Independent Technical Review Committee		75,000	
Aquatic Ecosystem Planning		3,000,000	
Program Management		485,000	
TOTAL		\$ 26,800,000	

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.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, 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

¹ No recreation projects scheduled.

The non-Federal sponsors have agreed to make all required payments concurrently with project construction.

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 \$766,195,000 is the same as the latest estimate presented to Congress (FY 2006).

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 authorizes an independent technical review committee. A Technical Review Committee will be established in Fiscal Year 2006. A further substantial long-term investment in ecosystem restoration was considered as part of the Upper Mississippi River-Illinois Waterway System Navigation Feasibility Study and recommended in the report of the Chief of Engineers dated December 15, 2004. To ensure the best use of available funds, the Corps will, as a next step, develop a 10-year aquatic ecosystem restoration plan based on the 15-year plan developed as part of the Upper Mississippi River-Illinois Waterway System Navigation Feasibility Study and focus on the areas of the UMRS watershed that provide the best opportunities for ecosystem restoration. The plan will identify the highest priority ecological needs, propose a program of highly cost effective projects to address them, and highlight the key long term scientific and engineering challenges facing the effort to protect and restore the ecosystem.

ENVIRONMENT
CONSTRUCTION
NORTHWESTERN DIVISION

APPROPRIATION TITLE: Construction, General – Ecosystem Restoration

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 Water Resources Development Act of 2000 (P. L. 106-541, dtd. 11 Dec 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

		STATUS (1 Jan 2006)	PERCENT COMPLETE	COMPLETION SCHEDULE
Estimated Appropriation Requirement (COE)	\$20,000,000	Entire Project	10%	To be determined
Estimated Non-Federal Cost	10,000,000			
Cash Contributions	1/			
Other Costs	1/			
Total Estimated Project Cost	\$30,000,000			

PHYSICAL DATA:

Types of projects will include, but not be limited to: a) creation and restoration of shallow water habitat; b) restoration of wetlands; c) improvements to fish passage; and d) restoration of floodplain functions and other actions to restore the estuary ecosystem.

1/ To be determined.

SUMMARY OF FINANCIAL DATA (continued)

Allocations to 30 September 2003	\$	482,000	Accum
Allocation for FY 2004		1,280,000	Percent of Est
Allocation for FY 2005		1,452,000	Fed Cost
Conference Allowance for FY 2006		2,000,000	
Allocation for FY 2006		1,980,000	
Allocations through FY 2006		5,194,000	26%
Allocation Requested for FY 2007		2,200,000	37%
Programmed Balance to Complete after FY 2007		12,606,000	
Unprogrammed Balance to Complete after FY 2007		0	

JUSTIFICATION: 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 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 actions 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: Implementation Guidance has been provided by HQUSACE. Current plans to implement this section include preparing PCAs for individual restoration sites as they are identified. A MOA has been executed with the USFWS for the Crims Island Site. A MOU is scheduled to be executed in February 2006 for the Columbia River Riparian site.

FISCAL YEAR 2006: The allocation amount of \$1,980,000 will be applied in the Columbia River as follows:

Study (Identify Sites and Priorities)	\$ 300,000
Engineering and Design	400,000
Construction	1,180,000
Construction Management	<u>100,000</u>
Total	\$ 1,980,000

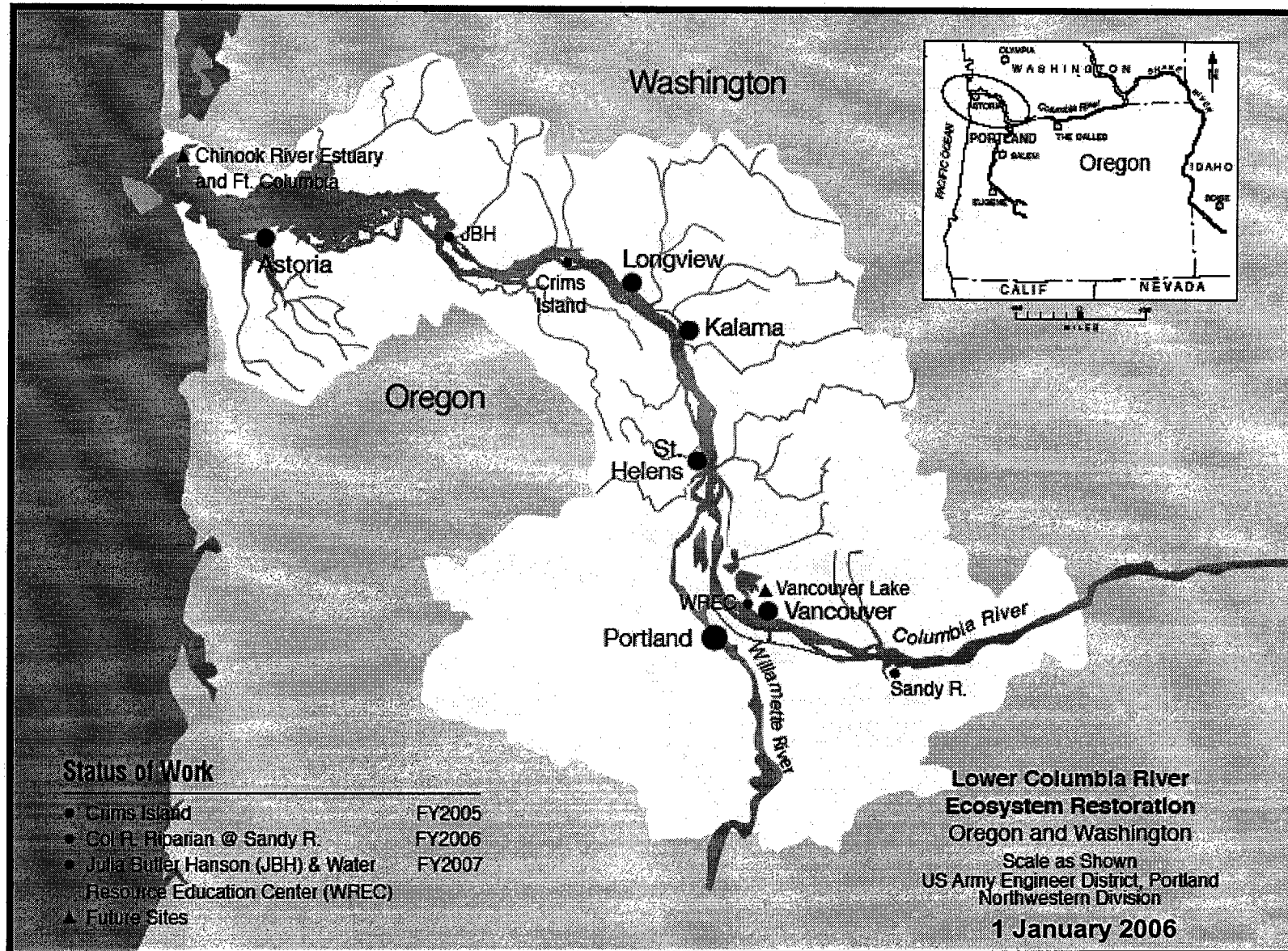
FISCAL YEAR 2007: The requested amount of \$2,200,000 will be applied in the Columbia River as follows:

Study (Identify Sites and Priorities)	\$ 600,000
Engineering and Design	400,000
Construction	1,100,000
Construction Management	<u>100,000</u>
Total	\$ 2,200,000

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal cost estimate of \$20,000,000 is unchanged from last presented to Congress (FY 2004).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An Environmental Impact Statement has not been prepared. Implementation Guidance has been provided by HQUSACE. Current plans to implement this section include preparing NEPA documentation on individual restoration sites as they are identified.

OTHER INFORMATION: Types of projects will include, but not be limited to: a) creation and restoration of shallow water habitat; b) restoration of wetlands; c) improvements to fish passage; and d) 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.



APPROPRIATION TITLE: Construction, General –Environmental Restoration

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 consists of a number 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.

INITIAL BENEFIT-COST RATIO: Not Applicable.

BASIS OF BENEFIT COST RATIO: Not Applicable.

ENVIRONMENT, Fiscal Year, 2007
SUMMARIZED FINANCIAL DATA

NORTHWESTERN DIVISION

		ACCUM PCT. OF EST FED COST	STATUS: (1 Jan 06)	PERCENT COMPLETE	COMPLETION SCHEDULE
Estimated Appropriation Requirements	\$261,000,000		Entire Project	91	TBD
Future Non-Federal Reimbursement	253,307,000		Wildlife Compensation	100	Sep 2002
Estimated Federal Cost (Ultimate)	7,693,000		Fish Facility	90	TBD
Estimated Non-Federal Cost	253,530,000		Lands	100	Sep 1994
Cash Contributions	\$ 223,000				
Reimbursements	253,307,000				
Power	\$253,307,000				
Total Estimated Project Cost	261,223,000				
Allocations To 30 Sep 2003	233,482,000				
Allocation for FY 2004	1,539,000				
Allocation for FY 2005	1,337,000				
Conference Allowance for FY 2006	675,000				
Allocation for FY 2006	668,000	1/			
Allocations through FY 2006	237,026,000	91			
Allocation Requested for FY 2007	850,000	91			
Programmed Balance to Complete after FY 2007	23,124,000				
Unprogrammed Balance to Complete after FY 2007	0				

1/ Reflects \$7,000 rescinded in accordance with the Consolidated Appropriations Act, 2006.

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 forland, 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 Lower Snake River Fish and Wildlife 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.

FISCAL YEAR 2006: The amount of \$668,000 will be applied as follows:

Continue Construction of Woody Wetland Riparian Habitat	\$668,000
Total	\$668,000

FISCAL YEAR 2007: The amount of \$850,000 will be applied as follows:

Continue Construction of Woody Wetland Reiparian Habitat	\$850,000
Total	\$850,000

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.

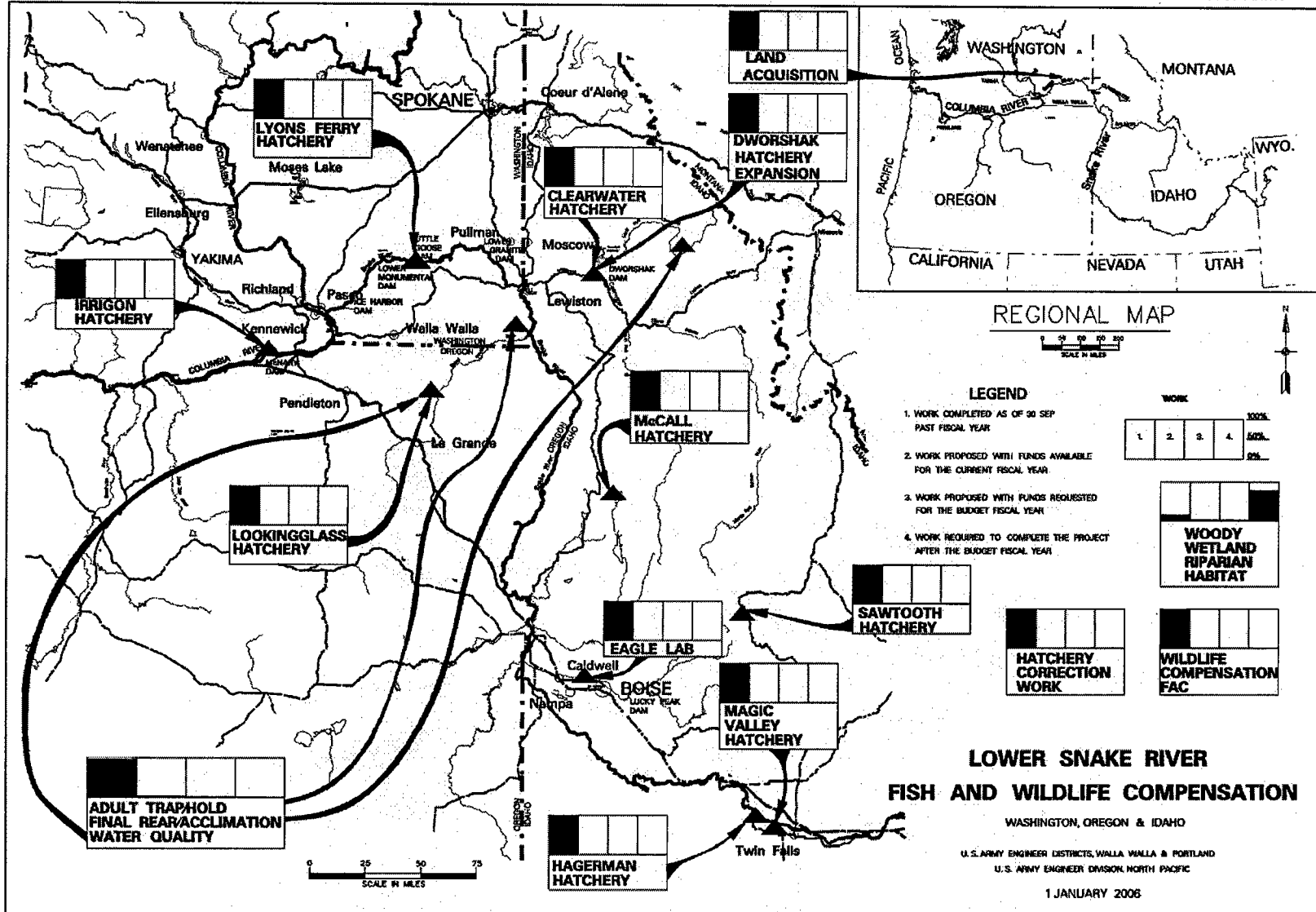
COMPARISON OF FEDERAL COST ESTIMATE: The current Federal cost estimate of \$261,000,000 is the same estimate last presented to Congress (FY 2006).

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. The purpose of the entire project is fish and wildlife compensation for the four mainstem dams on the Snake River.

CORPS OF ENGINEERS

U. S. ARMY



ENVIRONMENT
CONSTRUCTION
SOUTH ATLANTIC DIVISION

APPROPRIATION TITLE: Construction, General – Environmental Restoration

PROJECT: South Florida Everglades Ecosystem Restoration, Florida (Continuing)

LOCATION: The South Florida Everglades 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. This project 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 Conservations Areas, Everglades National Park, Southwest Florida, Florida Bay and the Florida Keys.

DESCRIPTION: The South Florida Everglades Ecosystem Restoration Program includes the Central and Southern Florida Project (C&SF), the Kissimmee River Restoration Project, and the Everglades and South Florida Restoration Projects, which were previously budgeted separately. In addition, this request incorporates a share of the federal costs of the Modified Water Deliveries Project, which was previously budgeted entirely within the National Park Service's Construction account. The consolidated budget request herein includes the following separable elements: West Palm Beach Canal, South Dade County, Comprehensive Everglades Restoration Plan, and Manatee Pass Thru Gates, (previously separable elements under the C&SF Project); East Coast Canal Structures, Western C-11 Basin, Seminole Big Cypress, Ten Mile Creek, Tamiami Trail (Western Segment), Florida Keys Carrying Capacity, Lake Okeechobee Water Retention, Southern CREW, and Lake Trafford (previously separable elements under the Everglades and South Florida Ecosystem Restoration Project); Kissimmee River Project; and the Modified Water Deliveries to Everglades National Park Project. The objective of the South Florida Everglades 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 regions.

The C&SF Project includes 1,000 miles of canals, 720 miles of levees and several hundred water control structures, while providing water supply, flood protection, water management and other benefits to south Florida.

The Everglades and South Florida Ecosystem 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 Kissimmee River basin is approximately 3,000 square miles in size and has two component parts; the upper basin, referred to as the Headwaters Revitalization, and the lower basin, referred to as the Kissimmee River Restoration. The upper basin portion of the project consists of water regulation schedule modifications, canal and structure improvements, and land acquisition. This will result in environmental benefits in the upper chain of lakes and in the lower basin. More natural fluctuations of water levels will enhance the peripheral marshes of the lakes. Reestablishing a more natural timing of flows to the lower basin will result in restoration of the Kissimmee River ecosystem. Structural improvements will include enlargements of existing canals and existing water control structures. The Kissimmee River project is addressing restoration of natural flooding of the floodplain to reestablish historic wetland conditions. Construction will include backfilling approximately 22 miles of the C-38 canal, excavating approximately 9 miles of new river channel, and removing 2 water control structures and locks in the backfilled sections. The project will also include 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.

Division: South Atlantic

District: Jacksonville

South Florida Everglades Ecosystem Restoration

06 February 2006

DESCRIPTION CONT':

The Modified Water Deliveries to Everglades National Park (MWD) involves construction of modifications to the C&SF Project water management system and related operational changes to provide improved water deliveries to Everglades National Park (ENP). The project consists of structural features with the intended purpose of restoring conveyance between Water Conservation Areas (WCA) north of ENP and the Shark River Slough within the Park. It will also provide flood mitigation to the 8.5 Square Mile Area (SMA), a residential area adjacent to the Park expansion boundary in East Everglades. For management purposes, the project is described in four categories: 8.5 SMA, Conveyance and Seepage Control, Tamiami Trail (Eastern Segment), and Project Implementation Support (ENP requirements, Experimental Program, Cape Sable Seaside Sparrow Emergency, Combined Structural and Operational Plan, Environmental Monitoring, and Osceola Camp).

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, and 2000. 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 2006)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost (CoE)		3,204,563,000		Misc. Completed Works	100	Oct 1992
Programmed Construction	2,586,180,000			Everglades Restoration	23	Indefinite
Unprogrammed Construction	618,383,000			West Palm Beach	97	TBD
Estimated Federal Cost (OFA)		305,655,000		South Dade County	45	TBD
Programmed Construction	305,655,000			Manatee Pass Gates	55	TBD
				E Coast Canal	100	Sep 2004
				Western C-11	100	Sep 2005
Estimated Non-Federal Cost		2,466,616,000		Seminole Big Cypress	17	TBD
Programmed Construction	2,109,504,000			Ten Mile Creek	100	Dec 2005
Cash Contributions	228,041,000			Tamiami Trail (Western)		NA
Other Costs	1,881,463,000			Florida Keys Carrying	100	Dec 2004
Unprogrammed Construction	357,112,000			Lake Okeechobee	98	Apr 2006
Cash Contributions	173,447,000			Southern CREW		NA
Other Costs	183,665,000			Lake Trafford		NA
Estimated Unallocated Cost		15,000,000		Kissimmee	40	TBD
Programmed Construction	15,000,000			Mod Water Del	40	TBD
Total Estimated Programmed Construction Cost		5,016,339,000				
Total Estimated Unprogrammed Construction Cost		975,495,000				
Total Estimated Project Cost		5,991,834,000				
Allocations to 30 September 2003		755,160,000		Entire Project		
Allocations for FY 2004		97,463,000				
Allocations for FY 2005		96,678,000			23	Indefinite
Conference Allowance for FY 2006		137,000,000				
Allocation for FY 2006		131,308,000	1/			
Allocations through FY 2006		1,080,609,000	42%			
Allocation Requested for FY 2007		164,000,000	48%			
Programmed Balance to Complete after FY 2007		1,349,071,000				
Unprogrammed Balance to Complete after FY 2007		618,383,000				

1/ Reflects rescission of \$1,370,000 and use of \$4,322,000 of FY 2006 funding to the Upper St Johns River Project.

Division: South Atlantic

District: Jacksonville

South Florida Everglades Ecosystem Restoration

06 February 2006

PHYSICAL DATA

Pumping Plants (Number)	38	Locks (Number)	25
Floodway Control & Diversion Structures (Number)	235	Canals (Miles)	999
Relocations-Highways (Bridges)	2	Levees (Miles)	1,008
Relocations-Railroads (Bridges)	58	Bridge	7
Canals - New River Channel	9		
Water Control Structures Removal	2		

JUSTIFICATION:

The Central and Southern Florida Project: The Central and Southern Florida 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 crops yields.

JUSTIFICATION CONT':

Average annual benefits 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

The Modified Water Deliveries to Everglades National Park and South Dade County (C-111) Projects: Public Law 90-483 and Public Law 101-229 (Everglades National Park Protection and Expansion Act) has authorized modifications to the project for environmental restoration in the C-111 basin and NW Shark River Slough. The South Dade County effort will restore natural hydrologic conditions in Taylor Slough within Everglades National Park for the purpose of restoring the historic diversity and abundance of the native flora and fauna. Modified Water Deliveries will restore natural hydrological flows to Shark River Slough at the northeastern corner of the Park.

Everglades and South Florida Ecosystem Restoration Project: WRDA 1996 authorized implementation of the Everglades and South Florida Ecosystem Restoration Project in order to provide immediate, independent, and substantial ecosystem restoration, protection and preservation benefits. The projects were justified on the basis of those benefits. Florida Keys Carrying Capacity Study, East Coast Canal Structure and Western C-11 projects have been completed.

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 continuing navigation and effective flood control, 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 which 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 2006: Fiscal Year 2006 funds will be used for 2 Kissimmee construction contracts, Reach 4 Backfill and Radio Tower; continue construction on S-65d Ground Control Structure; complete construction on S-83/S-84; and continue plans and specifications on future construction.

Funding for the Everglades & South Florida program will be used to complete construction on Ten Mile Creek and both the Taylor Creek and Nubbin Slough construction under the Lake Okeechobee Water Retention project. Funds also will be used for the Seminole Big Cypress construction contract.

Funding for the Central and Southern Florida project include: Comprehensive Everglades Restoration Plan (CERP): Continue Project Management Plans (PMP); Project Implementation Reports (PIR); plans and specifications on Indian River Lagoon South and Picayune Strand; continue installation, testing and design on the Pilot projects; continue system wide monitoring. West Palm Beach Canal: PSTA contract and design for L-40. South Dade County: design and the design-build contract for S-331 Command Building. Manatee Pass Thru Gates: Complete construction on protection barriers S-25, S-33 and S-79. Award acoustic devices at S-78 (Ortona Lock) and complete Spring 2006.

Funding for the Modified Water Deliveries to Everglades National Park will be used for three options to the base contract for 8.5 Square Mile Area, finalize plans and specifications for the Tamiami Trail (Eastern Segment), and continue design on Conveyance and Seepage features.

FISCAL YEAR 2007: The requested amount will be applied as follows:

Central and Southern Florida

Construction of L-40 and PSTA monitoring for West Palm Beach Canal	3,081,000
Construction of locks, channels, and canals for Manatee Pass-Through Gates	523,000
Feasibility phase of the Central and Southern Florida Project (CERP)	1,657,000
Design-build of S-331 Command Building for South Dade County	860,000
Engineering and Design, to includes installation and Testing of Pilot Projects as Preconstruction, Engineering and Design for the Aquifer Storage and Recovery features of CERP	8,000,000
Engineering and Design for South Dade County	1,500,000
Engineering and Design for Manatee Pass-Through Gates	75,000
Engineering and Design for Comprehensive Everglades Restoration Plan (CERP), includes Adaptive Assessment and Monitoring	54,343,000
Engineering and design for West Palm Beach Canal	103,000
Construction Management	305,000
 Subtotal	 \$ 70,447,000

FISCAL YEAR 2007 CON'T

Kissimmee	
Second construction contract on Reach 4 backfill	\$ 6,602,000
Construction of channels, canals, and floodway control structures	34,446,000
Planning, Engineering, and Design/Monitoring	5,938,000
Construction Management	3,278,000
Subtotal	\$50,264,000
Everglades and South Florida Ecosystem Restoration	
Construction of channels and canals	\$ 7,154,000
Planning, Engineering and Design	273,000
Construction Management	862,000
Subtotal	\$8,289,000
Modified Water Deliveries to Everglades National Park	
Initiate construction on Tamiami Trail (Eastern Segment)	24,716,000
Engineering and Design on Conveyance and Seepage	2,000,000
Project Implementation Support	4,600,000
Engineering and Design on 8.5 SMA	280,000
Engineering and Design on Tamiami Trail	1,450,000
Construction Management	1,954,000
Subtotal	\$35,000,000
Total	\$164,000,000

Division: South Atlantic

District: Jacksonville

South Florida Everglades Ecosystem Restoration

06 February 2006

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 and 2000 as applicable, 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		
West Palm Beach Canal		
Provide lands, easements, rights of way, and dredged material disposal areas.	11,129,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	1,400,000	
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.	17,771,000	289,800
Total Non-Federal Costs	30,300,000	289,800
South Dade County		
Provide lands, easements, rights of way, and dredged material disposal areas.	122,120,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	330,000	
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.	21,350,000	845,000
Total Non-Federal Costs	143,800,000	845,000

NON-FEDERAL COST CON'T:

Manatee Pass-Through Gates	
Pay applicable percentage based upon authorized cost share for each particular project.	2,200,000
Total Non-Federal Costs	2,200,000

Requirements of local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Comprehensive Everglades Restoration Plan		
Provide lands, easements, rights of way, and dredged material disposal areas.	626,837,000	
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 flood control facilities.	782,063,000	
Total Non-Federal Costs	1,408,900,000	

Completed C&SF Works	
Provide lands, easements, rights of way, and modify or relocate buildings, utilities, roads, bridges and other facilities.	212,940,000
Cash Contribution/WIK	232,275,000
Total Non-Federal Costs Total	445,215,000

NON-FEDERAL COST CON'T

	Payments During Construction, and Reimbursements	Annual Operation, Maintenance, Repair Rehabilitation, and Replacement Costs
Kissimmee		
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.	\$ 197,897,000	
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.	7,025,000	
Pay 50 percent of the costs allocated to environmental restoration, and pay all costs of operation, maintenance, repair, rehabilitation, and replacement.	82,778,000	
Total Non-Federal Costs	287,700,000	

	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

Division: South Atlantic

District: Jacksonville

South Florida Everglades Ecosystem Restoration

06 February 2006

NON-FEDERAL COST CON'T

	Payments During Construction, and Reimbursements	Annual Operation, Maintenance, Repair Rehabilitation, and Replacement Costs
Western C-11 Basin		
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.	8,992,000	310,000
Total Non-Federal Costs	8,992,000	310,000

	Payments During Construction, and Reimbursements	Annual Operation, Maintenance, Repair Rehabilitation, and Replacement Costs
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.	20,440,000	600,000
Total Non-Federal Costs	27,940,000	600,000

Division: South Atlantic

District: Jacksonville

South Florida Everglades Ecosystem Restoration

06 February 2006

NON-FEDERAL COST CON'T

	Payments During Construction, and Reimbursements	Annual Operation, Maintenance, Repair Rehabilitation, and Replacement Costs
Ten Mile Creek		
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.	5,074,000	
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.	15,136,000	660,000
Total Non-Federal Costs	20,210,000	660,000

	Payments During Construction, and Reimbursements	Annual Operation, Maintenance, Repair Rehabilitation, and Replacement Costs
Tamiami Trial (Western Segment)		
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 84 percent of the costs allocated to environmental restoration, and pay all costs of operation, maintenance, repair, rehabilitation, and replacement.	13,884,000	250,000
Total Non-Federal Costs	13,884,000	250,000

Division: South Atlantic

District: Jacksonville

South Florida Everglades Ecosystem Restoration

06 February 2006

NON-FEDERAL COST CON'T

	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	

	Payments During Construction, and Reimbursements	Annual Operation, Maintenance, Repair Rehabilitation, and Replacement Costs
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

Division: South Atlantic

District: Jacksonville

South Florida Everglades Ecosystem Restoration

06 February 2006

NON-FEDERAL COST CON'T

	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

	Payments During Construction, and Reimbursements	Annual Operation, Maintenance, Repair Rehabilitation, and Replacement Costs
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 95 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

Division: South Atlantic

District: Jacksonville

South Florida Everglades Ecosystem Restoration

06 February 2006

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.	\$ 123,781,000	
Pay share of project costs, to include 50 percent of all costs from FY 2005 onward.	135,874,000	
Total OFA Costs	259,655,000	

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 for the South Dade County separable element was executed with the South Florida Water Management District in January 1995. The Design Agreement for the South Florida Water Management District segment of the Comprehensive Everglades Restoration Plan (CERP) was signed on 12 May 2000. Additional Design Agreements for CERP features are scheduled to be 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 of 11.4% (reflecting credit for lands, easements, rights of way, relocations, and disposal areas) of construction costs.

PCA's 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 PCA 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).

PCA's 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.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal (Corps) cost estimate of \$3,212,043,000 is an increase of \$242,400,000 from the latest estimate (\$2,969,663,000) submitted to Congress (FY 2006). The changes include the following items:

Item	Amount
Price Escalation on Construction Features	\$1,974,000
Design Changes	3,928,300
Schedule Changes	597,700
Additional Functions Added under General Authority	235,880,000
Total	242,380,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT:

The latest Programmatic Environmental Impact Statement for Central and Southern Florida project was the Comprehensive Review Study in April 1999.

The final Environmental Impact Statement for the Kissimmee project was filed with CEQ on April 5, 1992. A supplement to the Environmental Impact Statement was integrated into the Upper Basin project modification report.

Appropriate NEPA documents were prepared and finalized prior to execution of the PCA for East Coast Canal Structures, Tamiami Trail Culverts (Western Segment) , Western C-11, Seminole Big Cypress, Southern Crew, Lake Okeechobee Water Retention, 10-Mile Creek, and Lake Trafford. A PCA was executed Dec 1998 for the Florida Keys Carrying Capacity Study.

OTHER INFORMATION: Funds to initiate preconstruction planning and construction on the original Central and Southern Florida project were appropriated in FY 1950.

The Everglades National Park Protection and Expansion Act, signed 13 December 1989, authorized construction of structural works required for improved 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. In FY2006, Congress provided funding for implementation of this project to both the National Park Service and the Corps of Engineers.

Modifications to the C&SF, South Dade County separable element to improve the natural resources in Taylor Slough in Everglades National Park have been funded through the Corps Central and Southern Florida project appropriation.

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 is underway, and construction was initiated in Fiscal Year 1997.

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, study coordination, and appropriate agency participation. The Water Resources Development Act of 1996 (Section 528) required that the 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 was submitted to Congress on 01 July 1999. The Energy and Water Appropriations Act of FY 2000, Public Law 106-50 authorized funds for the Government to initiate design of elements of the Comprehensive Plan for the Everglades and South Florida Ecosystem Restoration Project.

The Water Resources Development Act of 1996 also legislatively established the Task Force and expanded its membership to include State and local agency representatives. The Task Force is providing assistance to the Comprehensive Restoration Plan Program.

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 system. A final feasibility report, which included components of the Comprehensive Plan, 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.

OTHER INFORMATION CON'T:

The Picayune Strand Project Implementation Report was completed in December 2004.

The Water Resources Development Act 2000 authorized the Comprehensive Everglades Restoration Plan as the framework for modifications and operational changes to the Central & Southern Florida Project. In addition, specific authorization was provided 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 and part of the Comprehensive Everglades Restoration Plan were authorized in the Water Resources Development Act of 1999 for \$29 million.

Funds to initiate preconstruction planning for the Kissimmee River project were allocated in Fiscal Year 1992. Funds to initiate construction were allocated in Fiscal Year 1997.

The Everglades and South Florida Ecosystem Restoration project authorization limits total federal funding to \$75 million, however local sponsors have elected, on some projects, to fund more than 50% of project costs to complete those projects.

SUMMARIZED FINANCIAL DATA

C&SF Miscellaneous Completed Work

Estimate Federal Cost		935,944,000
Estimated Non-Federal Cost		445,215,000
Cash Contributions	232,275,000	
Other Costs	212,940,000	
Total Estimated Project Cost		1,381,159,000

Division: South Atlantic

District: Jacksonville

South Florida Everglades Ecosystem Restoration

06 February 2006

SUMMARIZED FINANCIAL DATA (Continued)

Modified Water Deliveries to Everglades National Park

Estimated Federal Cost (COE)		123,763,000
Programmed Construction	123,763,000	
Unprogrammed Construction	0	
Estimated Federal Cost (OFA)		259,655,000
Programmed Construction	259,655,000	
Unprogrammed Construction	0	
Estimated Unallocated Cost		15,000,000
Programmed Construction	15,000,000	
Unprogrammed Construction	0	

Total Estimated Programmed Construction Cost		398,418,000
Total Estimated Unprogrammed Construction Cost		0
Total Estimated Project Cost		398,418,000

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable

TOTAL BENEFIT-COST RATIO: Not applicable

SUMMARIZED FINANCIAL DATA (Continued)

South Dade County

Estimated Federal Cost		143,800,000
Programmed Construction	143,800,000	
Unprogrammed Construction	0	
Estimated Non-Federal Cost		143,800,000
Programmed Construction	143,800,000	
Cash Contributions	21,350,000	
Other Costs	122,450,000	
Estimated Non-Federal Cost		
Unprogrammed Construction		0
Cash Contributions	0	
Other Costs	0	
Total Estimated Programmed Construction Cost		287,600,000
Total Estimated Unprogrammed Construction Cost		0
Total Estimated Project Cost		287,600,000

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)		212,300,000
Programmed Construction	212,300,000	
Unprogrammed Construction	0	
Estimated Federal Cost (OFA)		46,000,000
Programmed Construction	46,000,000	
Unprogrammed Construction	0	
Estimated Non-Federal Cost		30,300,000
Programmed Construction	30,300,000	
Cash Contributions	17,771,000	
Other Costs	12,529,000	
Estimated Non-Federal Cost		0
Unprogrammed Construction		0
Cash Contributions	0	
Other Costs	0	
Total Estimated Programmed Construction Cost		288,600,000
Total Estimated Unprogrammed Construction Cost		0
Total Estimated Project Cost		288,600,000

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable

TOTAL BENEFIT-COST RATIO: Not applicable

SUMMARIZED FINANCIAL DATA (Continued)

Manatee Pass-Through Gates

Estimated Federal Cost			11,600,000
Programmed Construction		11,600,000	
Unprogrammed Construction		0	
Estimated Non-Federal Cost			2,200,000
Programmed Construction		2,200,000	
Cash Contributions	2,200,000		
Other Costs	0		
Estimated Non-Federal Cost			
Unprogrammed Construction		0	
Cash Contributions	0		
Other Costs	0		
Total Estimated Programmed Construction Cost			13,800,000
Total Estimated Unprogrammed Construction Cost			0
Total Estimated Project Cost			13,800,000

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable

TOTAL BENEFIT-COST RATIO: Not applicable

SUMMARIZED FINANCIAL DATA (Continued)

Comprehensive Everglades Restoration Plan

Estimated Federal Cost		1,415,500,000
Programmed Construction	1,415,500,000	
Unprogrammed Construction	0	
Estimated Non-Federal Cost		1,408,900,000
Programmed Construction	1,408,900,000	
Cash Contributions	13,988,000	
Other Costs	1,394,912,000	
Estimated Non-Federal Cost		
Unprogrammed Construction		0
Cash Contributions	0	
Other Costs	0	
Total Estimated Programmed Construction Cost		2,824,400,000
Total Estimated Unprogrammed Construction Cost		0
Total Estimated Project Cost		2,824,400,000

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable

TOTAL BENEFIT-COST RATIO: Not applicable

SUMMARIZED FINANCIAL DATA (Continued)

Lake Okeechobee

Estimate Federal Cost		10,705,000
Estimated Non-Federal Cost		11,197,000
Cash Contributions	5,970,000	
Other Costs	5,227,000	
Total Estimated Project Cost		21,902,000

Southern CREW

Estimate Federal Cost		281,000
Estimated Non-Federal Cost		33,040,000
Cash Contributions	3,462,000	
Other Costs	29,578,000	
Total Estimated Project Cost		33,321,000

East Coast Canal Structures

Estimate 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

Division: South Atlantic

District: Jacksonville

South Florida Everglades Ecosystem Restoration

06 February 2006

SUMMARIZED FINANCIAL DATA (Continued):

Western C-11 Basin

Estimate Federal Cost		9,074,000
Estimated Non-Federal Cost		8,992,000
Cash Contributions	8,389,000	
Other Costs	603,000	
Total Estimated Project Cost		18,066,000

Seminole Big Cypress

Estimate Federal Cost		24,309,000
Estimated Non-Federal Cost		27,940,000
Cash Contributions	11,941,000	
Other Costs	15,999,000	
Total Estimated Project Cost		52,249,000

Ten-Mile Creek

Estimate Federal Cost		20,466,000
Estimated Non-Federal Cost		20,210,000
Cash Contributions	13,934,000	
Other Costs	6,276,000	
Total Estimated Project Cost		40,676,000

Division: South Atlantic

District: Jacksonville

South Florida Everglades Ecosystem Restoration

06 February 2006

SUMMARIZED FINANCIAL DATA (Continued):

Tamiami Trail (Western Segment)

Estimate Federal Cost		2,622,000
Estimated Non-Federal Cost		13,884,000
Cash Contributions	0	
Other Costs	13,884,000	
Total Estimated Project Cost		16,506,000

Lake Trafford

Estimate Federal Cost		1,602,000
Estimated Non-Federal Cost		28,441,000
Cash Contributions	0	
Other Costs	28,441,000	
Total Estimated Project Cost		30,043,000

Keys Carrying Capacity

Estimate 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

Division: South Atlantic

District: Jacksonville

South Florida Everglades Ecosystem Restoration

06 February 2006

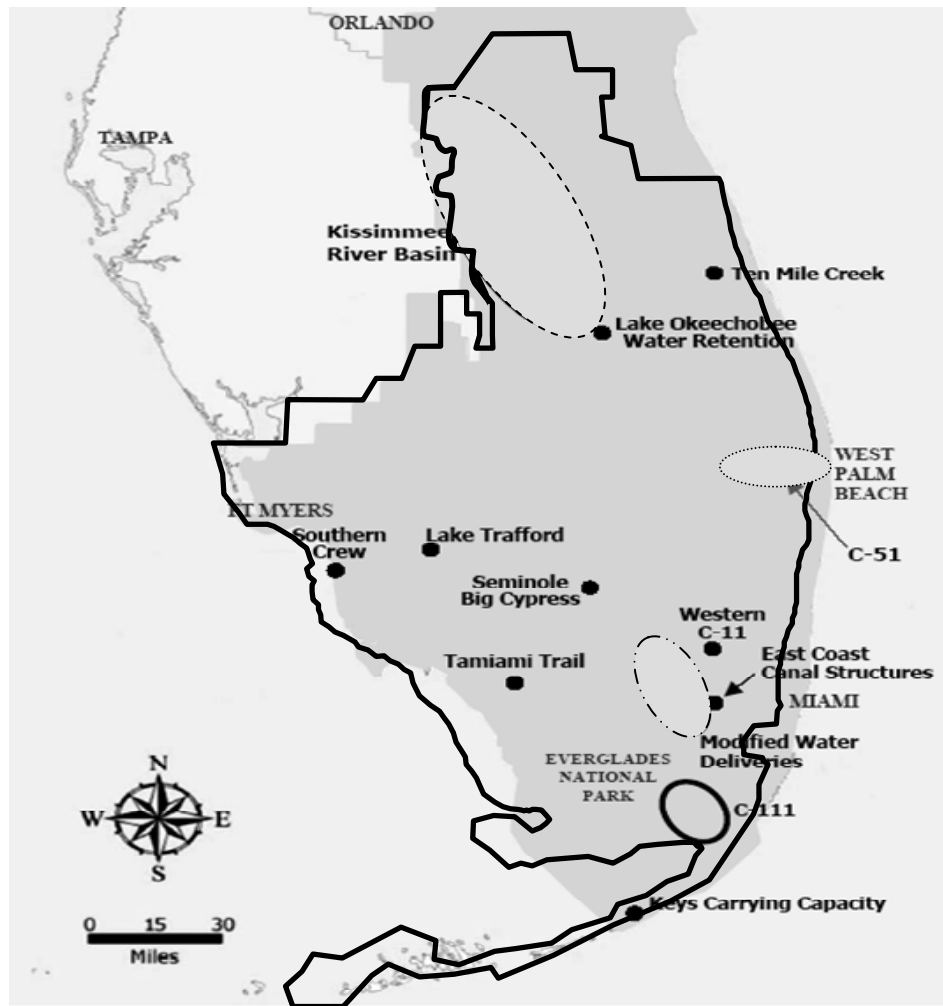
SUMMARIZED FINANCIAL DATA (Continued)

Kissimmee River




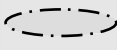

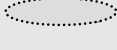

Estimated Federal Cost		287,700,000
Programmed Construction	287,700,000	
Unprogrammed Construction	0	
Estimated Non-Federal Cost		287,700,000
Programmed Construction	287,700,000	
Cash Contributions	67,136,000	
Other Costs	220,564,000	
Estimated Non-Federal Cost		0
Unprogrammed Construction		0
Cash Contributions	0	
Other Costs	0	
Total Estimated Programmed Construction Cost		575,400,000
Total Estimated Unprogrammed Construction Cost		0
Total Estimated Project Cost		575,400,000

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable

TOTAL BENEFIT-COST RATIO: Not applicable



Legend

-  C&SF Boundaries
-  CERP Boundaries
-  Critical Projects
-  Modified Water Deliveries to ENP
-  Kissimmee River Basin
-  C-51
-  C-111

**South Florida
Everglades Ecosystem
Restoration**

ENVIRONMENT
CONSTRUCTION
SOUTH PACIFIC DIVISION

APPROPRIATION TITLE: Construction, General – 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 includes a 988-acre parcel consisting of a former military runway and adjacent California State Lands Commission areas. 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. The project allows for the beneficial reuse of 10.6 million cubic yards of dredged material, including approximately 2.6 million cubic yards from the Oakland Harbor, CA (50-ft) deepening project to restore nearly 1,000 acres of wetland habitat. The project promotes the long term management strategy for placement of dredged material in the San Francisco Bay region.

AUTHORIZATION: Water Resources Development Act of 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: Project justification is based on nonmonetary benefits for aquatic ecosystem restoration.

SUMMARIZED FINANCIAL DATA		STATUS (1 Jan 2006)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	\$ 47,900,000	Entire Project	20	To be determined
Estimated Non-Federal Cost	\$ 16,000,000			
Cash Contribution	\$ 13,100,000			
Other Costs	2,900,000			
Total Estimated Project Cost	\$ 63,900,000			
		PHYSICAL DATA		
		Placement of 10.6 million cubic yards of dredged material; Breach tidal levee; Construction of 9,400 ft of perimeter levee; and Wetland Restoration of 988 acres		

Division: South Pacific
Wetlands

District: San Francisco

Hamilton Airfield

6 February 2006

Restoration, California

SUMMARIZED FINANCIAL DATA (Continued)

		ACCUM PCT OF EST FED EST
Allocations to 30 September 2003	7,678,000	
Allocations for FY 2004	2,118,000	
Allocations for FY 2005	5,208,000	
Conference Allowance for FY 2006	13,000,000	
Allocation for FY 2006	12,870,000 ^{1/}	^{1/} Reflects \$130,000 rescission.
Allocations through FY 2006	27,874,000	58
Allocation Requested for FY 2007	11,700,000	83
Programmed Balance to Complete after FY 2007	\$ 8,326,000	
Unprogrammed Balance to Complete after FY 2007	0	

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 use of dredged material from San Francisco Bay dredging projects. The project is also consistent with the local reuse plan for the airfield that was closed in 1974.

FISCAL YEAR 2006: Current year funds will be used to:

Construct N2 and South Levee	\$5,500,000
Construct Tidal Grading	2,800,000
Initiate and Complete Intertidal Berms	1,200,000
Planning, Engineering and Design	2,205,000
Construction Management	1,165,000
Total	\$12,870,000

FISCAL YEAR 2007: The requested amount of \$11,700,000 will be applied as follows:

Construct N2, South Levee, and Tidal Grading	\$10,000,000
Planning, Engineering and Design	1,000,000
Construction Management	700,000
Total	\$11,700,000

Division: South Pacific
Wetlands

District: San Francisco

Hamilton Airfield

6 February 2006

Restoration, California

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, Repairs, Rehabilitation, and Replacement Costs
Requirements of Local Cooperation		
Provide lands, easements, rights of way, and dredged material disposal areas.	\$ 300,000	N/A
Modify or relocate utilities, roads, bridges (except railroads bridges), and other facilities, where necessary for the construction of the project.	2,600,000	N/A
Pay 20.5 percent of the construction costs allocated to fish and wildlife restoration/beneficial use 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 Water Resources Development Act of 1999.	13,100,000	\$ 228,000
Total Non-Federal Costs	\$ 16,000,000	\$ 228,000

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

STATUS OF LOCAL COOPERATION: The California Coastal Conservancy, the local sponsor, supports the project. The Project Design Agreement was executed in September 1999. The current non-Federal cost estimate of \$16,000,000, which includes a cash contribution of \$13,100,000, is an increase of \$2,000,000 from the estimate reflected in the Project Cooperation Agreement, which was signed in April 2002. 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. The Project Cost Agreement amendment to accept advanced funds from the local sponsor was approved by the Assistant Secretary of the Army (Civil Works) on 21 January 2005.

COMPARISON OF FEDERAL COST ESTIMATES: The Current Federal cost estimate of \$47,900,000 is the same amount as last presented to Congress (FY 2006).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Final Environmental Impact Statement was filed with EPA in February 1999.

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.

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 were completed in April 2003. The GRR recommends the inclusion of the Bel Marin Keys and also provides a new estimate for the costs of the authorized Hamilton Wetlands Restoration Project. Total project first cost (October 2003 prices) reflected in the GRR, including the Bel Marin Keys increment, is estimated at \$192,900,000. The Chief's Report was signed 19 July 2004. Inclusion of the Bel Marin increment and the new overall project cost would require congressional authorization. The Hamilton 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 2005 to maintain the schedule.

Army Base Realignment And Closure (BRAC) transfer of the Hamilton Airfield parcel to the State of California occurred in September 2003.

ENVIRONMENT

CONSTRUCTION

MISSISSIPPI RIVER AND TRIBUTARIES

APPROPRIATION TITLE: Flood Control, Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO, and TN - Construction

PROJECT: Mississippi Delta Region, Louisiana (Salinity Control Structures) (Continuing)

LOCATION: The project is located in the lower Mississippi River delta region in Plaquemines and St. Charles Parishes, Louisiana. The Caernarvon structure is located in Plaquemines Parish on the east bank of the Mississippi River in the vicinity of Caernarvon, Louisiana. The Davis Pond structure is located in St. Charles Parish on the west bank just downstream of Luling, Louisiana.

DESCRIPTION: The plan of improvement originally consisted of four salinity control structures (Caernarvon, Davis Pond, Homeplace, and Bohemia) with appurtenant levees and channels, to divert freshwater from the Mississippi River into coastal bays and marshes for fish and wildlife restoration. The Caernarvon and Davis Pond salinity control structures are programmed, including post-construction environmental monitoring which will continue for four years after completion of construction of each structure. The Homeplace and Bohemia structures were deauthorized on 1 May 1997.

AUTHORIZATION: Flood Control Act of 1965, and Water Resources Development Acts of 1974, 1986 and 1996.

REMAINING BENEFIT - REMAINING COST RATIO: 21.2 to 1 at 7 percent (Davis Pond).

TOTAL BENEFIT-COST RATIO: 2.8 to 1 at 3-1/4 percent for Caernarvon (Fiscal Year 1969), and 2.4 to 1 at 8-7/8 percent for Davis Pond.

INITIAL BENEFIT - COST RATIO: 3.4 to 1 at 3-1/4 percent for Caernarvon (Fiscal Year 1969), and 3.0 to 1 at 8-1/8 percent for Davis Pond (Fiscal Year 1983).

BASIS OF BENEFIT - COST RATIO: Benefits are from the latest available evaluations: Caernarvon - approved in November 1985, at 1985 price levels; and Davis Pond - approved in September 1992 at 1990 price levels.

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST	STATUS (1 Jan 2006)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		\$109,850,000		Caernarvon	100	February 1997
Estimated Non-Federal Cost		36,550,000		Davis Pond	90	TBD
Cash Contribution	\$27,762,000			Entire Project	95	TBD
Other Costs	8,788,000					
Total Estimated Project Cost		\$146,400,000				
Allocations to 30 September 2003		\$ 97,398,142	<u>1/</u>			
Allocation for FY 2004		2,980,400				
Allocation for FY 2005		2,241,000				
Conference Allowance for FY 2006		3,330,000				
Allocation for FY 2006		3,297,000	<u>2/</u>			
Allocations to 30 September 2006		105,916,542		96		
Allocation Requested for FY 2007		3,212,000		99		
Programmed Balance to Complete After 2007		718,000				
Unprogrammed Balance to Complete After FY 2007						

1/ Includes \$58,000 expended on Bohemia prior to 1970.

2/ Reflects \$33,000 rescission in accordance with the Department of Defense, Emergency Supplemental Appropriations to Address Hurricanes in the Gulf of Mexico and Pandemic Influenza Act, 2006.

PHYSICAL DATA

	Caernarvon	Davis Pond
Lands and Damages	2,092 acres	10,213 acres
Relocations		
Roads/Bridges	1,600 linear feet	2,920 linear feet
Railroads	2,500 linear feet	3,600 linear feet
Utilities	4,600 linear feet	7,980 linear feet

Mississippi River Commission

New Orleans District

Mississippi Delta Region, LA

6 February 2006

Fish & Wildlife Facilities
Structures

5 box culverts
15 feet by 15 feet
8,000 cubic feet
per second

4 box culverts
14 feet by 14 feet
10,650 cubic feet
per second

Pumping Stations
Channels
Levees

Caernarvon
1.7 miles
3.7 miles

Davis Pond
1 pumping station, 570 cfs capacity
2.2 miles
16.9 miles

JUSTIFICATION: The project diverts freshwater from the Mississippi River to coastal bays and marshes for fish and wildlife restoration. Benefits include restoration of former ecological conditions by controlling salinity and supplementing nutrients. The bays are important to oyster production and as breeding areas for shrimp and food fishes, while the marsh areas produce natural food for fur-bearing animals and migratory waterfowl. Numerous bald eagles provide nesting habitat in the area. A total of 981,500 acres of marshes and bays will be benefited; coastal wetlands lost (326,000 ac) in Barataria Basin since 1932. The diversions take place under regulated conditions developed from monitoring the impact on the environment and the fish and wildlife. Average annual benefits are as follows:

Annual Benefits	Amount
Fish and Wildlife	\$ 8,706,000
Caernarvon	14,997,000
Davis Pond	
Recreation	
Caernarvon	449,000
Davis Pond	298,000
Total	\$24,450,000

FISCAL YEAR 2006: Current year funds are being used as follows:

Davis Pond

West Guide Levee	1,250,000
Monitoring	500,000
Planning, Engineering and Design	1,097,000
Construction Management	450,000
Total	\$ 3,297,000

FISCAL YEAR 2007: The requested amount will be applied as follows:

Davis Pond

Monitoring	500,000
Planning, Engineering and Design	1,200,000
Construction Management	100,000
Oyster Lease Closeout	912,000
Floodwall capping	500,000
Total	\$ 3,212,000

NON-FEDERAL COST: Based on the cost sharing concept adopted for the Caernarvon Structure, the non-Federal sponsor will voluntarily contribute 25 percent of the first cost of the project as well as the required 25 percent of the cost of operating, maintaining, repairing, rehabilitating, and replacing the project after completion.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation and Replacement Costs
Contribute 25 percent of the costs allocated to fish and wildlife restoration and pay 25 percent of the costs of operation, maintenance, repair, rehabilitation, and replacement of fish and wildlife facilities.		
Davis Pond	\$30,700,000	\$188,626
Caernarvon	5,850,000	71,277
Total Non-Federal Costs	\$36,550,000	\$259,903

The non-Federal sponsor for the Caernarvon and Davis Pond Structures has also agreed to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: The Project Cooperation Agreement for the Caernarvon Structure was signed by the State of Louisiana on 2 June 1987 and by the Assistant Secretary of the Army for Civil Works on 10 June 1987. The current non-Federal cost estimate of \$5,850,000, which includes a cash contribution of \$5,850,000, is a decrease of \$275,000 from the non-Federal cost estimate of \$6,125,000 noted in the Project Cooperation Agreement, which included a cash contribution of \$6,125,000. 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. The State of Louisiana has provided cash contributions of \$5,850,000 for the Caernarvon Structure. The State has also performed biological monitoring, with an estimated value of \$1,044,000. The Project Cooperation Agreement for the Davis Pond Structure was signed 17 April 1993 by the State of Louisiana and the Acting Assistant Secretary of the Army. The Water Resources Development Act of 1996 authorized the Corps to credit the State of Louisiana up to \$7,500,000 in oyster relocation costs. We are currently preparing an amendment to the Davis Pond PCA to incorporate these requirements. We anticipate execution of the amendment in September 2006. The State of Louisiana is funding both the construction and the operations and maintenance of the project through the Wetlands Conservation and Restoration Trust Fund. Our recent analysis of the non-Federal sponsor's financial capability affirms that the sponsor has a reasonable and implementable plan for meeting its financial commitment. The State of Louisiana has provided cash contributions of \$17,732,000 through 30 September 2005 for the Davis Pond Structure.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$109,850,000 is an increase of \$1,100,000 from the latest estimate (\$108,750,000) presented to Congress (Fiscal Year 2006). This change includes the following item:

Item	Amount
Price Escalation on Construction Features	\$ 1,100,000
Total	\$ 1,100,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement for the Louisiana Coastal Area Study was filed with the Environmental Protection Agency on 5 April 1985. This statement is adequate for the Caernarvon and Davis Pond structures. An environmental assessment was completed November 19, 2004 and addressed changes, in the Davis Pond gobion wier structure, required to improve the efficiency of the ponding area.

OTHER INFORMATION: Local interests, during the period 1954-1970, spent an estimated \$420,000 for construction and maintenance of freshwater diversion structures and channel improvements on the east bank of the Mississippi River in the vicinity of Bohemia and Bayou Lamoque.

Funds to initiate preconstruction engineering and design were appropriated in Fiscal Year 1969 and funds to initiate construction were appropriated in Fiscal Year 1987.

SUMMARIZED FINANCIAL DATA

Davis Pond:

Estimated Federal Cost		\$92,300,000
Estimated Non-Federal Cost		30,700,000
Cash Contributions	\$21,912,000	
Other Costs	8,788,000	
Total Estimated Cost		\$123,000,000

Caernarvon:

Estimated Federal Cost		\$17,550,000
Estimated Non-Federal Cost		5,850,000
Cash Contributions	\$5,850,000	
Other Costs	0	
Total Estimated Cost		\$23,400,000

REMAINING BENEFIT - REMAINING COST RATIO:

Davis Pond: 19.3 to 1 at 8-7/8 percent.

Caernarvon: Not applicable because construction is complete.

TOTAL BENEFIT - COST RATIO:

Davis Pond: 2.4 to 1 at 8-7/8 percent.

Caernarvon: Not applicable because construction is complete.

FUSRAP



PROGRAM

[View Similar Programs](#)

RATING

[What This Rating Means](#)

IMPROVEMENT PLAN

[About Improvement Plans](#)

LEARN MORE

PROGRAM ASSESSMENT

Formerly Utilized Sites Remedial Action Program

The purpose of this program is to clean up contamination resulting from the Nation's early atomic weapons program -- the Manhattan Project, for example -- at 22 sites in nine States. The Army Corps of Engineers determines what needs to be cleaned up and how, in consultation with the affected communities and regulators.

PERFORMING

Moderately Effective

- **The program has a clear purpose.** However, stakeholders at individual project sites in some cases have different views of what the goals of the program are.
- **The Corps has significantly reduced cleanup costs.** It has done this by increasing competition among contractors and by selecting disposal methods based on the risk posed by the actual materials being disposed of rather than higher theoretical risks that more concentrated materials might pose.

We are taking the following actions to improve the performance of the program:

- Working with stakeholders to better document and clarify program goals and commitments.
- Identifying ways to increase the program's efficiency while protecting the health and safety of the public and the environment, increasing competition where warranted.

- [Details and Current Status of this program assessment.](#)

- How all Federal programs are assessed.
- Learn more about Formerly Utilized Sites Remedial Action Program.

ENVIRONMENT

FORMERLY USED SITES REMEDIAL ACTION PROGRAM

(FUSRAP)

APPROPRIATION TITLE: Formerly Utilized Sites Remedial Action Program, Fiscal Year 2007
(\$000)

State Project Name	Allocated through FY 2006	FY 2007 Request	Remaining Requirement*
Connecticut			
CE, Windsor, CT	9,427	250	20,633
Iowa			
Iowa Army Ammunition Plant, Middletown, IA	1,325	700	TBD
Maryland			
W. R. Grace, Baltimore, MD	12,186	900	32,100
Massachusetts			
Shpack Landfill, Norton, MA	17,199	3,000	17,000
Missouri			
Downtown, St. Louis, MO	151,177	16,100	57,900
Latty Avenue, St. Louis, MO	71,503	13,000	89,312
St. Louis Airport Vicinity Properties, St. Louis, MO	43,639	3,000	81,561
St. Louis Airport, St. Louis, MO	294,956	11,700	1,000
New Jersey			
Dupont Chambers Works, Deepwater, NJ	16,090	1,500	7,550
Maywood, NJ	307,153	30,000	140,250
Middlesex, NJ	84,608	15,000	8,000
New York			
Ashland 1, Tonawanda, NY	94,797	500	0
Colonie, NY	183,104	1,830	7,570
Guterl, Lockport, NY	865	2,320	TBD
Linde Air Products, Tonawanda, NY	180,250	16,950	25,000
Niagara Falls Storage Site, NY	44,943	2,500	304,050
Seaway Industrial Park, Tonawanda, NY	8,665	400	27,700
Sylvania Corning, Hicksville, NY	1,470	1,500	TBD
Ohio			
Former Harshaw Chemical Company, Cleveland, OH	10,145	1,950	32,030
Luckey, OH	14,966	500	133,855
Painesville, OH	16,200	5,400	1,200
Pennsylvania			
Shallow Land Disposal Area, Parks Township, PA	8,920	1,000	TBD
Potential Sites	2,574	0	TBD
	1,576,162	130,000	986,711

*The remaining requirement, except as indicated on individual justification sheets, is based on cost estimates developed during the spring of 1998 to validate initial Corps estimates in the Report to Congress. As in the case of the estimates in the Report to Congress, these estimates assume acceptance of criteria for remediation which, while fully protective of human health and the environment also strike an appropriate balance among cost, regulatory and community acceptance, and land use considerations. They also assume funds are provided to support the optimal remediation schedules. The actual remaining requirement may range from \$840,000,000 to \$1,222,000,000.

CONNECTICUT

Site

Combustion Engineering Windsor, CT New England District	29,700,000 – 42,790,000*	9,177,000	250,000	250,000	20,023,000-33,113,000
---	--------------------------	-----------	---------	---------	-----------------------

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" and completed a Remedial Action Report.

In FY 2005, the Corps completed a Feasibility Study.

In FY 2006, the Corps completes the Proposed Plan and Record of Decision, and continues potentially responsible party discussions.

FY 2007 funds will be used for project management and Quality Assurance activities associated with Remedial Design/Remedial Action being accomplished by the responsible party.

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. Responsible party with Corps oversight may do remedial action.

**The completion schedule will depend on the cleanup standards established for this site and overall funding constraints.

APPROPRIATION TITLE: Formerly Utilized Sites Remedial Action Program, Fiscal Year 2007

Mississippi Valley Division

IOWA

Site	Total Estimated Federal Cost \$	Allocation Prior to FY 2004 \$	Allocation FY2004 \$	Allocation FY2005 \$	Allocation FY 2006 \$	Requested Allocation FY 2007 \$	Additional to Complete After FY 2007 \$
Iowa Army Ammunition Plant Middletown, IA St. Louis District	TBD*	175,000	250,000	500,000	400,000	700,000	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. From 1947 to 1975, the Atomic Energy Commission (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. The Preliminary Assessment included a review of AEC historical documents, site visits, examination of the results of an indoor radiological survey, and performance of a limited radiological walkover survey at two firing site areas. Evidence of a release was found and additional investigation to determine the nature and extent of AEC associated contamination was recommended. It is believed that approximately 1,600 acres within the IAAAP may have been potentially impacted by Atomic Energy Commission operations. Limited survey data and existing sampling data (from other Army activities) indicate radiological (primarily depleted uranium), chemical, and explosives contamination exists. The nature and extent of this contamination will be investigated and defined during the Remedial Investigation (RI), which is the next step in the planning process. The primary regulators/stakeholders include the Environmental Protection Agency Region VII, Iowa Department of Public Health, Iowa Army Ammunition Plant (Army) and the IAAAP Restoration Advisory Board. The site was placed on the National Priority List in 1990.

In FY 2005, the Corps continued to negotiate a Federal Facilities Agreement with the primary regulators/stakeholders, performed additional walkover surveys to gather data to better scope the Remedial Investigation and developed the Sampling and Analyses Plan for the Remedial Investigation/Feasibility Study of the site.

In FY 2006, the Corps is finalizing the Federal Facilities Agreement and the Sampling and Analyses Plan for the Remedial Investigation/Feasibility Study and beginning fieldwork.

FY 2007 funds will be used to continue the Remedial Investigation/Feasibility Study of the Site.

The schedule for completion of site remediation is to be determined.**

*A preliminary cost estimate for site remediation will be determined at completion of the Remedial Investigation phase.

** The completion schedule will depend on the cleanup standards established for this site and on overall funding constraints.

APPROPRIATION TITLE: Formerly Utilized Sites Remedial Action Program, Fiscal Year 2007

North Atlantic Division

MARYLAND

Site	Total Estimated Federal Cost \$	Allocation Prior to FY 2004 \$	Allocation FY 2004 \$	Allocation FY 2005 \$	Allocation FY 2006 \$	Requested Allocation FY 2007 \$	Additional to Complete After FY 2007 \$
W.R. Grace Site Baltimore, MD Baltimore District	41,970,000 – 55,960,000*	9,490,000	500,000	1,700,000	496,000	900,000	20,430,000- 34,420,000*

The W.R. Grace site is situated within a 260-acre property owned by Grace, located on an industrialized peninsula in south Baltimore. Currently, Grace manufactures and produces specialty chemicals at this facility. Contamination at the site consists of radioactively contaminated slabs and other surfaces impacted by the thorium extraction process in Building 23, which is still used by Grace, and the Radioactive Waste Disposal Area (RWDA) to the east of the plant proper. The Department of Energy (DOE) had conducted radiological surveys at the site; however, no actual characterization or remediation had been performed. The Corps has finalized the remedial investigations/feasibility studies (RI/FS) and Record of Decision (ROD) for Building 23.

In FY 2005, the Corps finalized the ROD for Building 23, began negotiating an agreement with the site owner to perform the cleanup work, and drafted the RI/FS for the RWDA.

In FY 2006, the Corps completes the RI/FS and ROD for the RWDA.

FY2007 funds will be used to implement the ROD to clean up the RWDA.

The schedule for completion of 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 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 Prior to FY 2004 \$	Allocation FY 2004 \$	Allocation FY 2005 \$	Allocation FY 2006 \$	Requested Allocation FY 2007 \$	Additional to Complete After FY 2007 \$
Shpack Landfill Norton/Attleboro, MA New England District	37,199,000	5,310,000	160,000	4,790,000	6,939,000	3,000,000	17,000,000

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. Through Fiscal Year 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.

In FY 2006, the Corps will continue the remedial action addressing the radiological contamination in accordance with the EPA Record of Decision. Quantities of contaminated soil have increased significantly over those in the Record of Decision.

In FY 2007 funds will be used to continue the remedial action.

The remedial action is now scheduled for completion in FY 2008, dependant upon available funding.

APPROPRIATION TITLE: Formerly Utilized Sites Remedial Action Program, Fiscal Year 2007

Mississippi Valley Division

MISSOURI

Site	Total Estimated Federal Cost \$	Allocation Prior to FY 2004 \$	Allocation FY 2004 \$	Allocation FY 2005 \$	Allocation FY 2006 \$	Requested Allocation FY 2007 \$	Additional to Complete After FY 2007 \$
St. Louis Downtown Site St. Louis, MO St. Louis District	225,177,000	117,188,000	9,889,000	11,300,000	12,800,000	16,100,000	57,900,000

The St. Louis Downtown Site and vicinity properties are located in St. Louis, Missouri. The site is comprised of 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, progeny, 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 Accessible Soils was signed to allow the removal of approximately 87,000 cubic yards of contaminated soils. The total estimated Federal cost has increased due to the discovery and remediation of unexpected Civil War era ordnance, significant increases in the volume of contaminated soils encountered, and underestimation of the costs of coordinating work on an active industrial facility, among other factors. The total estimated Federal cost shown above does not reflect possible costs of addressing contamination in inaccessible soils.

In FY 2005, in accordance with the Record of Decision, the Corps completed remediation of two vicinity properties (Midtown Garage and Thomas and Proetz Lumber Company) and completed design for three vicinity properties. A total of 9,000 cubic yards of contaminated soils were removed.

In FY 2006, the Corps is initiating the development of the Feasibility Study/Proposed Plan for inaccessible soils, completing remedial designs for one vicinity property, and remediating approximately 10,000 cubic yards from Plant 7 North, Plant 6 West and one vicinity property.

FY 2007 funds will be used to remediate approximately 14,000 cubic yards from Plant 6 West and a vicinity property and to continue work on the Feasibility Study/Proposed Plan/Record of Decision for inaccessible soils.

The completion schedule will depend on the overall funding constraints.

APPROPRIATION TITLE: Formerly Utilized Sites Remedial Action Program, Fiscal Year 2007

Mississippi Valley Division

Site	Total Estimated Federal Cost \$	Allocation Prior to FY 2004 \$	Allocation FY 2004 \$	Allocation FY 2005 \$	Allocation FY 2006 \$	Requested Allocation FY 2007 \$	Additional to Complete After FY 2007 \$
Latty Avenue Properties/Hazelwood Interim Storage Site, Berkeley, MO St. Louis District	173,815,000	62,062,000	1,893,000	2,300,000	5,248,000	13,000,000	89,312,000

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.

In FY 2005, the Record of Decision was finalized; this document establishes the final remedy for cleanup of the North St. Louis County sites (which includes the Latty Avenue Properties). The Corps also removed 800 cubic yards of contaminated soil in utility support of the local landowners.

In FY 2006, the Corps is completing design work and removing approximately 4,600 cubic yard of contaminated soil.

FY 2007 funds will be used to excavate and ship approximately 10,000 cubic yards.

The completion schedule will depend on overall funding constraints.

APPROPRIATION TITLE: Formerly Utilized Sites Remedial Action Program, Fiscal Year 2007

Mississippi Valley Division

Site	Total Estimated Federal Cost \$	Allocation Prior to FY 2004 \$	Allocation FY 2004 \$	Allocation FY 2005 \$	Allocation FY 2006 \$	Requested Allocation FY 2007 \$	Additional to Complete After FY 2007 \$
St. Louis Airport Site, Vicinity Properties, St. Louis, MO St. Louis District	128,200,000	38,137,000	1,602,000	1,900,000	2,000,000	3,000,000	81,561,000

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 through vehicular distribution along the roadways. (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. A Potentially Responsible Party investigation is underway.

In FY 2005, the Record of Decision was finalized; this document establishes the final remedy for the cleanup of the North St. Louis County sites (which includes the St. Louis Airport Site Vicinity Properties). Miscellaneous utility support to vicinity property landowners including removal of approximately 1,000 cubic yards was also conducted to ensure the safety of personnel. Complete remediation of the Vicinity Properties will require the removal of an additional 111,000 cubic yards of contaminated material.

In FY 2006, the Corps is performing design work and remediating approximately 1,000 cubic yards.

FY 2007 funds will be used to perform design work and remediate approximately 1,000 cubic yards.

**The completion schedule will depend on overall funding constraints.

APPROPRIATION TITLE: Formerly Utilized Sites Remedial Action Program, Fiscal Year 2007

Mississippi Valley Division

Site	Total Estimated Federal Cost \$	Allocation Prior to FY 2004 \$	Allocation FY 2004 \$	Allocation FY 2005 \$	Allocation FY 2006 \$	Requested Allocation FY 2007 \$	Additional to Complete After FY 2007 \$
St. Louis Airport Site, St. Louis, MO St. Louis District	307,656,000	193,290,000	36,466,000	38,300,000	26,900,000	11,700,000	1,000,000

The St. Louis Airport Site (SLAPS) consists of 21.7 acres north of Lambert International Airport in North St. Louis County, Missouri. The site contamination 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 FY 2005, the Corps performed design work, removed and shipped approximately 100,000 cubic yards under an Engineering Evaluation/Cost Analysis (EE/CA). In addition, the Record of Decision was finalized; this document establishes the final remedy for cleanup of the North St. Louis County sites (which includes the St. Louis Airport Site).

In FY 2006, the Corps is removing and shipping approximately 80,000 cubic yards of contaminated soil.

FY 2007 funds will be used to remove and ship approximately 25,000 cubic yards of contaminated soil and to backfill and restore the site.

This will complete construction activities at the site.

APPROPRIATION TITLE: Formerly Utilized Sites Remedial Action Program, Fiscal Year 2007

North Atlantic Division

NEW JERSEY

Site	Total Estimated Federal Cost \$	Allocation Prior to FY 2004 \$	Allocation FY 2004 \$	Allocation FY 2005 \$	Allocation FY 2006 \$	Requested Allocation FY 2007 \$	Additional to Complete After FY 2007 \$
DuPont Chambers Works Deepwater, NJ Philadelphia District	22,210,000 – 29,630,000*	8,953,000	2,250,000	3,400,000	1,487,000	1,500,000	4,620,000 – 12,040,000*

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.

In FY 2005, the Corps completed the final Intrusive Site Soil Contamination Investigation and analysis (on Operable Unit #3). The Corps began incorporating this data into the Site-Wide remedial investigation and risk assessment. The groundwater investigation was continued.

In FY 2006, the Corps completes the final RI report and risk assessment, initiates the Site-wide Feasibility Study and continues the groundwater contamination investigations.

Requested funds for FY 2007 will be used to finalize the Site-wide Feasibility Study, and finalize the groundwater investigations and analysis.

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.

APPROPRIATION TITLE: Formerly Utilized Sites Remedial Action Program, Fiscal Year 2007

North Atlantic Division

Site	Total Estimated Federal Cost \$	Allocation Prior to FY 2004 \$	Allocation FY 2004 \$	Allocation FY 2005 \$	Allocation FY 2006 \$	Requested Allocation FY 2007 \$	Additional to Complete After FY 2007 \$
Maywood Site Maywood, N.J. New York District	450,000,000- 500,000,000*	217,064,710	26,664,881	33,893,409	29,530,000	30,000,000	109,067,000- 160,067,000*

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, while we negotiate a Corps/EPA FFA. 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.

In FY 2005 funds were used to continue remedial action for the remainder of the soils. In addition, the Corps finalized the groundwater remedial investigation and continued to develop the groundwater feasibility study and proposed plan.

In FY 2006, the Corps continues remedial action for the remainder of the soils, completes the feasibility study and proposed plan and initiates the groundwater ROD.

In FY 2007 funds will be used to continue the remedial action under the soils ROD and to complete the groundwater ROD.

The schedule for completion of site remediation is to be determined.**

* 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.

APPROPRIATION TITLE: Formerly Utilized Sites Remedial Action Program, Fiscal Year 2007

North Atlantic Division

Site	Total Estimated Federal Cost \$	Allocation Prior to FY 2004 \$	Allocation FY 2004 \$	Allocation FY 2005 \$	Allocation FY 2006 \$	Requested Allocation FY 2007 \$	Additional to Complete After FY 2007 \$
Middlesex Sampling Plant Middlesex, NJ New York District	84,660,000- 112,890,000*	76,068,000	1,530,000	2,110,000	4,900,000	15,000,000	0- 13,182,000*

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 (RI/FS/PP) for soils on the remainder of the site. Coordination with Federal and state agencies, and local communities is continuing.

In FY 2005, the Corps completed a Record of Decision (ROD) for soils, the Groundwater Remedial Investigation and initiated the Groundwater Feasibility Study and Proposed Plan.

In FY 2006, the Corps continues the soils remediation and completes the Groundwater Feasibility Study and Proposed Plan and initiates a Groundwater ROD. Additionally, the Corps continues to work with USEPA Region 2 to develop a Federal Facilities Agreement.

FY 2007 funds will be used to complete the soils remediation and complete the Groundwater ROD.

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 Prior to FY 2004 \$	Allocation FY 2004 \$	Allocation FY 2005 \$	Allocation FY 2006 \$	Requested Allocation FY 2007 \$	Additional to Complete After FY 2007 \$
Ashland 1 Tonawanda, NY Buffalo District	95,297,000	84,535,915	4,645,000	2,616,085	3,000,000	500,000	0

The Ashland 1 Site is a privately owned 10.8-acre site in the Town of Tonawanda that is contaminated with radiological waste, including thorium, uranium and radium. The waste that was disposed of at the site originated at the Linde plant, where uranium ore was processed. The Record of Decision (ROD) for this site, which includes Ashland 2 and Area D of the Seaway site, was signed in April 1998 and calls for excavation and off-site disposal of radiologically-contaminated wastes. Through FY 2004 the Corps excavated, transported and disposed of 173,000 tons out of state. Backfill of the site was completed in December 2003. Additional contamination was found in Rattlesnake Creek that appears to have originated from the Ashland 1 and 2 sites. An Explanation of Significant Differences (ESD) was prepared and coordinated with regulators prior to remediation of the Rattlesnake Creek area. The total estimated Federal cost of this project has been reduced as all remediation activities are scheduled for completion in FY 2007. The Ashland project is being coordinated with the New York State Department of Environmental Conservation, New York State Department of Health, and U.S. Environmental Protection Agency.

FY 2005 funds were used to develop work plans for Rattlesnake Creek and begin remediation work. All excavation was completed (25,000 tons removed). Backfilling and restoration of the site was initiated.

In FY 2006, the Corps completes the site restoration work and the Construction Report for Rattlesnake Creek.

FY 2007 funds will be used to close out the Ashland Record of Decision and turn over the site to the Department of Energy.

The current schedule for site closeout is FY 2007.

APPROPRIATION TITLE: Formerly Utilized Sites Remedial Action Program, Fiscal Year 2007

North Atlantic Division

Site	Total Estimated Federal Cost \$	Allocation Prior to FY 2004 \$	Allocation FY 2004 \$	Allocation FY 2005 \$	Allocation FY 2006 \$	Requested Allocation FY 2007 \$	Additional to Complete After FY 2007 \$
Colonie Site Colonie, NY New York District	185,000,000 – 200,000,000*	148,465,000	11,764,000	12,350,000	10,525,000	1,830,000	575,000- 14,896,000*

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 continued the removal action under the revised Action Memorandum and prepared a risk assessment and an EE/CA for the adjacent CSX vicinity property.

In FY 2005, funds were used to continue the removal action under the revised Action Memorandum, and finalize the CSX EE/CA.

In FY 2006, the Corps completes the removal actions on the main site and the last adjacent VP (CSX parcel) and develops the draft groundwater Record of Decision (ROD) and decision document for the main site.

FY 2007 funds will be used to complete the Groundwater ROD and decision document for the main site.

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.

APPROPRIATION TITLE: Formerly Utilized Sites Remedial Action Program, Fiscal Year 2007

Great Lakes and Ohio River Division

Site	Total Estimated Federal Cost \$	Allocation Prior to FY 2004 \$	Allocation FY 2004 \$	Allocation FY 2005 \$	Allocation FY 2006 \$	Requested Allocation FY 2007 \$	Additional to Complete After FY 2007 \$
Guterl Specialty Steel Lockport, NY Buffalo District	TBD*	20,000	295,000	250,000	300,000	2,320,000	TBD*

The former Guterl Specialty Steel site, a.k.a. Simonds 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 in operation. 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 process encompass about 9 acres, are abandoned, and are no longer under the control of the U.S. Bankruptcy Court. The site also includes a 9-acre landfill. The Guterl project is being coordinated with the New York State Department of Environmental Conservation, New York State Department of Health, and U.S. Environmental Protection Agency.

FY 2005 funds were used to initiate a Remedial Investigation.

In FY 2006, the Corps continues the Remedial Investigation and to evaluate the necessity of a removal action.

FY 2007 funds will be used to continue the Remedial Investigation and initiate the Feasibility Study.

* A preliminary cost estimate for site remediation will be determined at completion of the Remedial Investigation phase.

APPROPRIATION TITLE: Formerly Utilized Sites Remedial Action Program, Fiscal Year 2007

Great Lakes and Ohio River Division

Site	Total Estimated Federal Cost \$	Allocation Prior to FY 2004 \$	Allocation FY 2004 \$	Allocation FY 2005 \$	Allocation FY 2006 \$	Requested Allocation FY 2007 \$	Additional to Complete After FY 2007 \$
Linde Air Products Tonawanda, NY Buffalo District	223,300,000	105,493,857	29,155,000	25,321,143	20,280,000	16,950,000	25,000,000

The Linde site is located in the Town of Tonawanda, a suburb north of Buffalo, NY. The project consists of two distinct areas: the original Linde site that is now owned and occupied by Praxair, Inc.; and a designated vicinity property, the Tonawanda Landfill and Mudflats area that is located about 1.5 miles north of Praxair. The Linde site is a former industrial complex in an urban area that now serves as the worldwide research and development facility for Praxair. Currently, employment is approximately 1,400 people. A public elementary school and numerous residential properties adjoin the property. Radioactive contamination generated by former Manhattan Engineering District activities, in the soils, buildings, and groundwater at the Linde site are being evaluated and remediated, as required under CERCLA. The principal radionuclides of concern are radium, thorium, uranium, and decay products. The Tonawanda Landfill and Mudflats Area consists of two contiguous Town of Tonawanda municipal tracts: the Landfill being approximately 55 acres; and the Mudflats Area, approximately 115 acres. Radioactive contamination at this vicinity property is being evaluated to determine if remediation will be necessary, as required by CERCLA. There are no buildings on this Vicinity Property. The Linde project is being coordinated with the New York State Department of Environmental Conservation, New York State Department of Health, and U.S. Environmental Protection Agency. Project costs have significantly increased (\$30,000,000) due to the discovery of additional contaminated materials (60,000 tons) in previously inaccessible and uncharacterized areas.

FY 2005 funds were used to complete the removal of Building 14, complete the Remedial Investigation (RI)/ Feasibility Study (FS) on the groundwater operable unit, complete the RI for the Tonawanda Landfill and Mudflats Vicinity Property, and continue soils remediation.

In FY 2006, the Corps continues the soils remedial action, completes the Record of Decision (ROD) on the groundwater operable unit, and completes the "No Action" Proposed Plan for the Tonawanda Landfill and Mudflats Vicinity Property.

FY 2007 funds will be used to continue the soils remedial action, and complete the "No Action" ROD for the Tonawanda Landfill and Mudflats Vicinity Property.**

**The completion schedule will depend on the cleanup standards established for this site and on overall funding constraints .

APPROPRIATION TITLE: Formerly Utilized Sites Remedial Action Program, Fiscal Year 2007

Great Lakes and Ohio River Division

Site	Total Estimated Federal Cost \$	Allocation Prior to FY 2004 \$	Allocation FY 2004 \$	Allocation FY 2005 \$	Allocation FY 2006 \$	Requested Allocation FY 2007 \$	Additional to Complete After FY 2007 \$
Niagara Falls Storage Site Lewiston, NY Buffalo District	319,220,000 - 425,620,000*	34,531,915	4,645,000	2,616,085	3,150,000	2,500,000	272,327,000- 378,727,000*

The Niagara Falls Storage Site (NFSS) is a 191-acre Federally-owned site with: a below ground interim repository for radioactive residues and waste; several buildings, one of which contains isolated areas of fixed, low activity radioactive contamination; and several vicinity properties (VPs). It is located in Lewiston Township, 19 miles northwest of Buffalo, NY. Material stored in the repository includes 234,770 cy of low activity radioactive waste and 14,390 cy of high activity radioactive residues. The repository is covered with an interim cap designed to retard radon emissions and rainwater infiltration. Yearly fixed costs cover cap maintenance and site monitoring and security. The NFSS project is being coordinated with the New York State Department of Environmental Conservation, New York State Department of Health, and U.S. Environmental Protection Agency.

FY 2005 accomplishments include continued progress on the Remedial Investigation (RI) report and Feasibility Study (FS), and continuation of yearly site maintenance, monitoring and surveillance activities. The Corps also continued its community outreach.

In FY 2006, the Corps finalizes the RI report, and continues the FS. Maintenance, monitoring and surveillance activities continue to assure integrity of the waste containment structure and community outreach continues.

FY 2007 funds will be used to conclude the FS study and report; initiate work on the Proposed Plan (PP); continue maintenance, monitoring, and surveillance activities; and community outreach.

The schedule for completion of the 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 current cost estimate assumes that some action will be taken to address the entire site. The Feasibility Study will also evaluate a number of options, including the feasibility of leaving the containment structure intact for transfer to DOE for Long-term Stewardship under the MOU between the Corps and DOE. Selection of this alternative would likely result in a lower overall cost for the FUSRAP completion.

** The completion schedule will depend on the cleanup standards established for this site and overall funding constraints.

Site	Total Estimated Federal Cost \$	Allocation Prior to FY 2004 \$	Allocation FY 2004 \$	Allocation FY 2005 \$	Allocation FY 2006 \$	Requested Allocation FY 2007 \$	Additional to Complete After FY 2007 \$
Seaway Industrial Park Tonawanda, NY Buffalo District	33,484,000 - 63,984,000*	7,665,000	330,000	285,000	385,000	400,000	24,004,000 - 54,504,000*

The Seaway Landfill, a closed sanitary landfill, is a privately owned 93-acre site in the Town of Tonawanda, 3 miles north of Buffalo, NY that is contaminated, principally on 16 acres, with radiological waste, including thorium, uranium and radium. The waste that was disposed of at the site originated at the Linde Air Products plant, where uranium ore was processed. There are four areas associated with the Seaway Site - Areas A, B, C and D. Clean up of accessible (outside of the landfill) Area D soils was included in the Record of Decision for the remediation of Ashland 1 and Ashland 2. During remediation of the Ashland 1 and 2 sites contamination was identified that extends beyond the fence line into the north and south sides of the Seaway site that will be considered with as part of the Seaway site. The Seaway site is being coordinated with the New York State Department of Environmental Conservation, New York State Department of Health, and U.S. Environmental Protection Agency.

FY 2005 funds were used to complete the draft Feasibility Study Addendum (FSA); coordinate the draft FSA with project stakeholders; respond to comments; and finalize the FSA. This FSA also addresses additional soil volumes left from the Ashland 1 remedial action in the vicinity of Seaway Area D (south side) and adjacent to the Ashland 2 (north side) remediation.

In FY 2006, the Corps initiates and completes the Proposed Plan, conducts public review, and initiates work on the Record of Decision (ROD).

FY 2007 funds will be used to complete the Record of Decision.

The schedule for completion of the 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 first estimate represents the cost for the containment alternative, and the second represents the cost for partial excavation.

**The completion schedule will depend on the cleanup standards established for the site and overall funding constraints.

APPROPRIATION TITLE: Formerly Utilized Sites Remedial Action Program, Fiscal Year 2007

North Atlantic Division

Site	Total Estimated Federal Cost \$	Allocation Prior to FY 2004 \$	Allocation FY 2004 \$	Allocation FY 2005 \$	Allocation FY 2006 \$	Requested Allocation FY 2007 \$	Additional to Complete After FY 2007 \$
Sylvania Corning Plant Hicksville, NY New York District	TBD*	0	0	220,000	1,250,000	1,500,000	TBD*

The 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.

In FY 2005, funds were used to prepare a Preliminary Assessment and to coordinate with stakeholders.

In FY 2006, the Corps initiates a Remedial Investigation and Baseline Risk Assessment.

FY 2007 funds will be used to complete the Remedial Investigation and Baseline Risk Assessment.

*A preliminary cost estimate for site remediation will be determined at completion of the Remedial Investigation phase.

APPROPRIATION TITLE: Formerly Utilized Sites Remedial Action Program, Fiscal Year 2007

Great Lakes and Ohio River Division

OHIO

Site	Total Estimated Federal Cost \$	Allocation Prior to FY 2004 \$	Allocation FY 2004 \$	Allocation FY 2005 \$	Allocation FY 2006 \$	Requested Allocation FY 2007 \$	Additional to Complete After FY 2007 \$
Former Harshaw Chemical Company Cleveland, OH Buffalo District	38,970,000 – 51,950,000*	4,550,000	2,395,000	1,300,000	1,900,000	1,950,000	26,775,000 – 39,755,000

The former Harshaw Chemical Company is a privately owned, 40-acre site located approximately 5 miles southwest of downtown Cleveland, Ohio. The area is predominately an industrial setting bordering the on Cuyahoga River. From 1944 through 1959, the Manhattan Engineering District (MED) and the Atomic Energy Commission (AEC) contracted Harshaw for the purpose of supporting 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 Harshaw, under the guidance of the AEC. The Harshaw project is being coordinated with the Ohio Environmental Protection Agency and Ohio Department of Health.

FY 2005 funds were used to complete the second phase of the Remedial Investigation (RI).

In FY 2006, the Corps completes the RI report and initiates the Feasibility Study (FS).

FY 2007 funds will be used to continue the FS and initiate work on the Proposed Plan (PP).

The schedule for completion of the 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.

APPROPRIATION TITLE: Formerly Utilized Sites Remedial Action Program, Fiscal Year 2007

Great Lakes and Ohio River Division

Site	Total Estimated Federal Cost \$	Allocation Prior to FY 2004 \$	Allocation FY 2004 \$	Allocation FY 2005 \$	Allocation FY 2006 \$	Requested Allocation FY 2007 \$	Additional to Complete After FY 2007 \$
Luckey Site Luckey, OH Buffalo District	136,110,000 - 181,490,000*	13,876,000	335,000	255,000	500,000	500,000	120,644,000 – 166,024,000*

The Luckey Site is a privately owned 40-acre site located approximately 22 miles southeast of Toledo, Ohio. 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. In 1949, the Atomic Energy Commission constructed a beryllium production facility at the site. The waste solutions and sludge from the beryllium production operations were stored in lagoons on the plant 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. The scrap steel is believed to be the source of the radiological contamination. In 1958, beryllium production operations ceased. The Luckey project is being coordinated with the Ohio Environmental Protection Agency, Ohio Department of Health, and the U.S. Environmental Protection Agency.

FY 2005 funds were used to continue preparation of the Record of Decision (ROD) and conduct annual groundwater sampling.

In FY 2006, the Corps completes the Record of Decision, conducts annual groundwater sampling, and begins remedial design.

FY 2007 funds will be used to continue remedial design and conduct annual groundwater sampling.

The schedule for completion of the 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.

APPROPRIATION TITLE: Formerly Utilized Sites Remedial Action Program, Fiscal Year 2007

Great Lakes and Ohio River Division

Site	Total Estimated Federal Cost \$	Allocation Prior to FY 2004 \$	Allocation FY 2004 \$	Allocation FY 2005 \$	Allocation FY 2006 \$	Requested Allocation FY 2007 \$	Additional to Complete After FY 2007 \$
Painesville Site Painesville, OH Buffalo District	22,800,000	8,385,000	615,000	1,250,000	5,950,000	5,400,000	1,200,000

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, 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. 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. 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 Painesville project is being coordinated with the Ohio Environmental Protection Agency and Ohio Department of Health.

FY 2005 funds were used to complete the Feasibility Study Addendum, complete the Proposed Plan and initiate the Record of Decision.

In FY 2006, the Corps completes the Record of Decision and remedial design, and initiates site cleanup.

FY 2007 funds will be used to complete site cleanup and restoration, prepare closure reports, and begin transition of the site to the Department of Energy.

The completion schedule will depend on the overall funding constraints.

PENNSYLVANIA

Site	Total Estimated Federal Cost \$	Allocation Prior to FY 2004 \$	Allocation FY 2004 \$	Allocation FY 2005 \$	Allocation FY 2006 \$	Requested Allocation FY 2007 \$	Additional to Complete After FY 2007 \$
Shallow Land Disposal Area (SLDA) Parks Township, PA Pittsburgh District	TBD*	3,110,000	3,180,000	1,220,000	1,410,000	1,000,000	TBD*

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. The SLDA project is being coordinated with the Pennsylvania Department of Environmental Protection, Pennsylvania Department of Health, and U.S. Environmental Protection Agency.

FY 2005 funds were used to complete the Remedial Investigation (RI) field work and initiate the Feasibility Study (FS).

In FY2006, the Corps completes the RI Report and FS, and initiates the Proposed Plan (PP).

FY 2007 funds will be used to complete the PP and the Record of Decision (ROD) and continue remedial design.

The schedule for completion of site remediation is to be determined.**

*A preliminary cost estimate for site remediation will be determined at completion of the Remedial Investigation phase.

** The completion schedule will depend on the cleanup standards established for this site and on the overall funding constraints.

APPROPRIATION TITLE: Formerly Utilized Sites Remedial Action Program, Fiscal Year 2007

NATIONAL

Site	Total Estimated Federal Cost \$	Allocation Prior to FY 2004 \$	Allocation FY 2004 \$	Allocation FY 2005 \$	Allocation FY 2006 \$	Requested Allocation FY 2007 \$	Additional to Complete After FY 2007 \$
Potential Sites	TBD*	0	1,000,000	774,000	800,000	0	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.

These funds are 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 for further study and remediation.

*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.

OPERATION AND MAINTENANCE

FY 2007 OPERATION AND MAINTENANCE

	Environment		
Region 01 New England	1,970,000	184,000	2,154,000
Region 02 Mid-Atlantic	1,631,000	517,000	2,148,000
Region 03 South Atlantic-Gulf	10,880,000	2,114,000	12,994,000
Region 04 Great Lakes	260,000	0	260,000
Region 05 Ohio	5,660,000	524,000	6,184,000
Region 06 Tennessee	0	0	0
Region 07 Upper Mississippi	8,163,000	2,593,000	10,756,000
Region 08 Lower Mississippi	598,000	75,000	673,000
Region 09 Souris-Red-Rainy	277,000	0	277,000
Region 10 Missouri	9,949,000	5,547,000	15,496,000
Region 11 Arkansas-White-Red	8,329,000	1,227,000	9,556,000
Region 12 Texas-Gulf	4,325,000	32,000	4,357,000
Region 13 Rio Grande	593,000	5,000	598,000
Region 15 Lower Colorado	168,000	0	168,000
Region 17 Pacific Northwest	10,210,000	3,463,000	13,673,000
Region 18 California	3,483,000	754,000	4,237,000
Region 19 Alaska	0	0	0
Total Environment	66,496,000	17,035,000	83,531,000

ENVIRONMENT

CONSTRUCTION

CONTINUING AUTHORITIES PROGRAM

APPROPRIATION TITLE: Construction, General, FY 2007

10. Improvement of the Environment

a. Project Modifications for Improvement of the Environment (Section 1135, PL 99-662, as amended)

Allocation FY 2006	\$29,700,000	Tentative Allocation FY 2007	\$15,000,000
--------------------	--------------	------------------------------	--------------

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 \$25,000,000 may be appropriated annually. The non-Federal share of the cost of any modifications will be 25 percent. Modifications with estimated Federal costs over \$5,000,000 require specific Congressional authorization.

BUDGET REQUEST: The \$15,000,000 requested for Fiscal Year 2007 is to continue the Section 1135 program of project modifications in the interest of improving the quality of the environment. Proposed allocations to specific projects are as follows. These projects were specifically identified in the Conference Report for FY 2006, and are continuing the same phase into FY 2007.

**CONTINUING AUTHORITIES
PROGRAM**

Name	Phase	Amount (\$000)
Allin's Cove, RI	CON	41
Bayou Desiard, LA	PS	19
Big Cypress Bayou, TX	CON	1,675
Black Mallard Crk, MI	PDA	115
Boyd's Marsh, RI	CON	1,214
Ecosystem Revit Route 66, NM	PS	15
Hart-Miller, MD	CON	162
Joe Creek, OK	FEA	109
Kanaha Pond, HI	FEA	843
Kingman Island, DC	CON	1,800
Lake St Joseph, LA	FEA	70
Las Cruces Dam, NM	FEA	477
Lower Truckee Rvr, NV	PS	155
Mapes Crk, WA	FEA	52
Millwood Lake, Grassy Lake, AR	FEA	70
Oyster Revitalization, DE and NY	CON	4,061
Pecos Rvr, NM	FEA	55
Pelekane Bay, HI	FEA	742
Prison Farm, ND	FEA	278
Rathburn Lake, IA	CON	100
Sand Creek, KS	CON	1,280
Spunky Bottoms, IL	PS	147
Village of Oyster, VA	FEA	97
Union Slough, WA	CON	1,423
TOTAL		15,000

b. Aquatic Ecosystem Restoration (Section 206, P.L. 104-303)

Allocation FY 2005	\$29,700,000	Tentative Allocation FY 2007	\$15,100,000
--------------------	--------------	------------------------------	--------------

GENERAL: Section 206 of the Water Resources Development Act of 1996 authorizes up to \$25,000,000 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 shall 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.

BUDGET REQUEST: The \$15,100,000 requested for Fiscal Year 2007 is to continue the Section 206 program of aquatic habitat restoration. Proposed allocations to specific projects are as follows. These projects were specifically identified in the Conference Report for FY 2006, and are continuing the same phase into FY 2007.

CONTINUING AUTHORITIES PROGRAM

Name	Phase	Amount (\$000)
Arkansas, CO	CON	325
Blackwater Refuge, MD	FEA	150
Big Fish Weir Creek, FL	FEA	237
Bottomless Park, NM	CON	783
Bird Island, MA	PS	70
Brush Neck Cove, RI	FEA	189
Canonburg Lake PA	PDA	50
Carpenter Crk, WA	PS	107
Carson City, NV	FEA	400
Cedar Lake, IN	FEA	155
Clear Lake, IA	FEA	139
Concord Stream Bank, NC	FEA	160
Confluence State Park, MO	FEA	186
Echo Bay, NY	FEA	200
Emiquon, IL	FEA	627
English Creek, CA	PS	38
Eugene Delta Pond, OR	CON	432
Goose Creek, CO	FEA	175
Greenbury Point, MD	PDA	100
Jackson Creek, GA	FEA	100
Jemez River, NM	PS	135
Lake Anna, VA	PDA	188
Little River Watershed, GA	FEA	300
Lockport Prairie, IL	FEA	182
Lower Boulder Crk, CO	FEA	124
Lynches Rvr, Lake City, SC	PDA	59
Malden River, MA	PS	220
Mokuhinia, HI	FEA	675
Mountain Park, GA	PDA	108
Narrows River, RI	FEA	90
Ninigret, RI	CON	403
North Hempstead, NY	FEA	300

North Park Lake, PA 1/	PS/CON	1,000
Orland Park, IL	PS	200
Potash Brook, NY	FEA	500
Rose Bay, FL	CON	1,160
Salmon River, ID	PS	506
Salt River, CA	FEA	400
Sheridan Park, PA	FEA	400
Stephenville Wetland, TX	PS	85
Stevenson Creek, FL	CON	360
St Helena-Napa River, CA	FEA	350
Storm Lake, IA	FEA	220
Sweetwater Reservoir, CA	FEA	48
Ten mile RVR, RI	PS	50
Tidal Middle, MD	FEA	361
Treats Pond, MA	PDA	78
Tsala Apopka Restoration, GA	FEA	500
University Lakes, East Bston Rouge, LA	FEA	186
Upper Tioga Rvr, PA	FEA	100
Western Cary Streams, NC	PS	235
Wolfe Lake, IN	CON	954
TOTAL		15,100

1/ North Park Lake includes new phase for construction.

ENVIRONMENT
REMAINING ITEMS
CONSTRUCTION

c. Estuary Restoration Program (Title I of P.L. 106-457).

Allocation FY 2006

\$990,000

Tentative Allocation FY 2007

\$5,000,000

GENERAL: The Estuary Restoration Act of 2000, Title I of P.L. 106-457 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 (including monitoring), maintaining, replacing, repairing, and rehabilitating the projects. Eight projects are in various stages of implementation. Examples include a dam removal on the Eastern Shore of Maryland, filling of mosquito ditches to restore wetlands in Florida, and reconnecting a back water slough thus restoring tidal floodplain wetland habitat in Oregon.

BUDGET REQUEST: The \$5,000,000 requested for Fiscal Year 2007 is to continue the program of estuary habitat restoration, including initiation of new projects.

APPROPRIATION TITLE: Construction, FY 2007

12. Aquatic Plant Control (APC) Program

Allocation FY 2006	\$4,000,000	Tentative Allocation FY 2007	\$3,000,000
--------------------	-------------	------------------------------	-------------

GENERAL: The Aquatic Plant control research is the nation's only Federally authorized research program for technology that is necessary to manage non-indigenous aquatic plant species. The objective of the research is to develop cost effective, environmentally compatible aquatic plant control technology, including biological, chemical, and integrated control methods. Research involving management strategies and applications and ecological factors are also being conducted. The control technology, management strategies and ecological understanding resulting from APC research forms the national base in the APC area, and is applied not only to control aquatic plant infestations in public waters nationwide, but is also essential to cost effective, environmentally compatible, aquatic plant control for the operation and maintenance of Corps projects. Nearly 3.0 million acres nationwide are now infested with problem aquatic plants. The Corps manages over 5.6 million surface acres of water at its reservoir projects alone, with significant additional acreage as part of navigation projects. Eurasian watermilfoil, hydrilla, alligatorweed, and other exotic species continue to expand from local infestations, many of which are interfering with navigation, flood control, hydropower production water quality and aquatic habitat. New colonies of objectionable aquatic plants continue to be found, such as hydrilla in the southeast and Eurasian watermilfoil in the Midwest. Direct applications of technologies developed by research under the Aquatic Plant Control Program have resulted in the reduction of waterhyacinth in the Gulf Coast States and California of over 3 million acres. In addition, technology developed by the APC research program has resulted in a nationwide reduction of alligatorweed. The Aquatic Plant Control Program is authorized by Section 104 of the River and Harbor Act of 1958, (P.L. 85-500), as amended by Section 104 of the River and Harbor Act of 1962, (P.L. 87-874), Section 302 of the River and Harbor Act of 1965 (P.L. 89-298), and Sections 103, 105, and 941 of the Water Resources Development Act of 1986 (P.L. 99-662), Section 225 of the Water Resource Development Act of 1996 and Section 205 of the Water Resource Development Act of 1999 (P.L. 106-53). The APC program has an annual expenditure ceiling of \$15,000,000.

BUDGET REQUEST: The \$3,000,000 requested for Fiscal Year 2007 will be used for continued research efforts for aquatic plant control technologies to support the operation and maintenance of Corps projects. Efforts will focus on control methods for submersed aquatic plants (i.e. Eurasian watermilfoil, hydrilla, and giant salvinia), with emphasis on biological control agents, chemicals, integrated control methods, management strategies and ecological factors that impact non-indigenous aquatic plant species. Research efforts are fully coordinated with other Federal, state, and local agencies to prevent duplication of effort and to ensure that research under this program is consistent with, and complementary to, the research efforts of others. The cost of research dealing with problems/outputs of regional or nationwide importance is 100 percent Federal.

ENVIRONMENT
REMAINING ITEMS
OPERATION AND MAINTENANCE

Cultural Resources (NAGPRA/Curation)

SUMMARIZED FINANCIAL DATA:

Estimated Total (FY 1994 - 2010) Program cost	\$44,000,000
Allocation Requested for FY 2006	1,239,000
Allocation Requested for FY 2007	2,000,000
Increase of FY 2007 from FY 2006	761,000

AUTHORIZATION: The Native American Graves Protection and Repatriation Act (NAGPRA) enacted on 16 November 1990 contains data gathering, reporting, consultation, 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 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.

PROPOSED ACTIVITIES FOR FY 2007: 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.

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.

Independent Assessment for Stewardship Program

SUMMARIZED FINANCIAL DATA:

Appropriation for FY 2006	\$0
Allocation Requested for FY 2007	\$500,000
Change of FY 2007 from FY 2006	\$500,000

AUTHORIZATION: This program is conducted under the general authority of PL 78-534, the Flood Control Act of 1944 (58 Stat. 887).

JUSTIFICATION: One way to measure the effectiveness of program performance is to perform non-biased, independent evaluations that are on a regular, or as needed basis, to fill gaps in performance information. The last such comprehensive evaluation for the Environmental Stewardship program was completed in 1984 by a blue ribbon panel. This independent panel found that the demands for available natural resources were increasing substantially; soil erosion is a major challenge; there should be clear authority to intensively manage natural resources for public purposes; and the Corps should develop and maintain natural resource management plans that are based on current inventories. The FY05 PART assessment concluded that a new assessment could be useful. A new independent assessment will seek evaluation and recommendations to improve program performance and increase program efficiency. It will assess the environmental stewardship program with due regard for budget constraints and the fact that the Corps has strong demands on its limited resources for completing its three main mission areas: commercial navigation, flood and storm damage reduction and aquatic system restoration. The Environment-Stewardship program evaluation will examine the Environmental Stewardship program management strategies, program management practices, adequacy of current regulations, performance measurement and improvement recommendations, including mechanisms to increase receipts that may be implemented consistent with the resource protection and conservation mission of the stewardship program. Budgetary resources are expected to be very tight for the foreseeable future; consequently the report will attempt to set priorities indicating what work needs to be done first and what can be done later. The program assessment would be completed in one year and provide a report the Corps can use for setting priorities for managing this program.

PROPOSED ACTIVITIES FOR FY 2007: An independent entity would be contracted with to perform the evaluation and provide recommendations to the Corps for improving program effectiveness and efficiency.

ACCOMPLISHMENTS IN FY 2006: Prepared PART assessing this program.

Stewardship Support Program

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost for Continuing Program	\$750,000
Appropriation for FY 2006	\$500,000 1/
Allocation Requested for FY 2007	500,000
Increase of FY 2007 from FY 2006	0

1/ Centrally funded activity in Fiscal Year 2006.

AUTHORIZATION: This program is conducted under the authority of ER 1130-2-540, Chapter 7.

JUSTIFICATION: The Stewardship Support Program 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 will be 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 our work.

PROPOSED ACTIVITIES FOR FY 2007:

1. **Focused Management Actions and Studies:** A national assessment of environmental threats that impact environmental stewardship is needed. This assessment would identify the level threat experienced by projects from, for example, invasive species, shoreline erosion, or adjacent land uses. This assessment would assist in prioritizing work efforts and funding for stewardship. In addition, a study to determine benchmarks for various costs related to stewardship activities is needed in order to adequately compare work efforts in budgeting and performance output efforts.
2. **Policy Guidance and Management Support:** Policy guidance development is needed to support inventory and master plan implementation. Inventories and Master Plans are the focus of two of the Environment-Stewardship strategic goals. Specific guidance is needed to assure common understanding of their requirements and to assure a level of standard output is achieved. Stakeholder outreach tools are recommended to achieve a greater level of stakeholder and customer input in program implementation. A survey, specific to the Environment-Stewardship program, is planned to identify areas of needed management and customer satisfaction improvement. Continued development of the budget evaluation tool, E-S BEST, is essential to improve the Environment-Stewardship budget development process. Refinement of this tool is critical to assist in prioritizing proposed budget packages and developing various budget scenarios to improve the efficiency and effectiveness of the Stewardship program. Strategic planning is also required in order to accomplish the CW strategic goals. The Environment-Stewardship program requires the update of its program strategic plan in order remain in accord with the CW strategic objectives and to assist in accomplishing the CW program goals.
3. **Information exchange.** NRM Gateway development in support of Environment-Stewardship initiatives in necessary and should continue. This information exchange tool is designed improve communication within the NRM community and preserve the organization's institutional knowledge. Stewardship components of the NRM Gateway will be developed in priority order based on input from the Stewardship Advisory Team (SAT). Technology transfer of best management practices is also required. Best management practices related to inventory implementation; the management of riparian resources, and significant resources such as native prairie lands will be developed and shared. Support for SAT will be provided to facilitate team meetings and other SAT initiatives.

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 2006. 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, the program management plan for the Environment-Stewardship Community of Practice, and the annual Environment- Stewardship program development guidance.

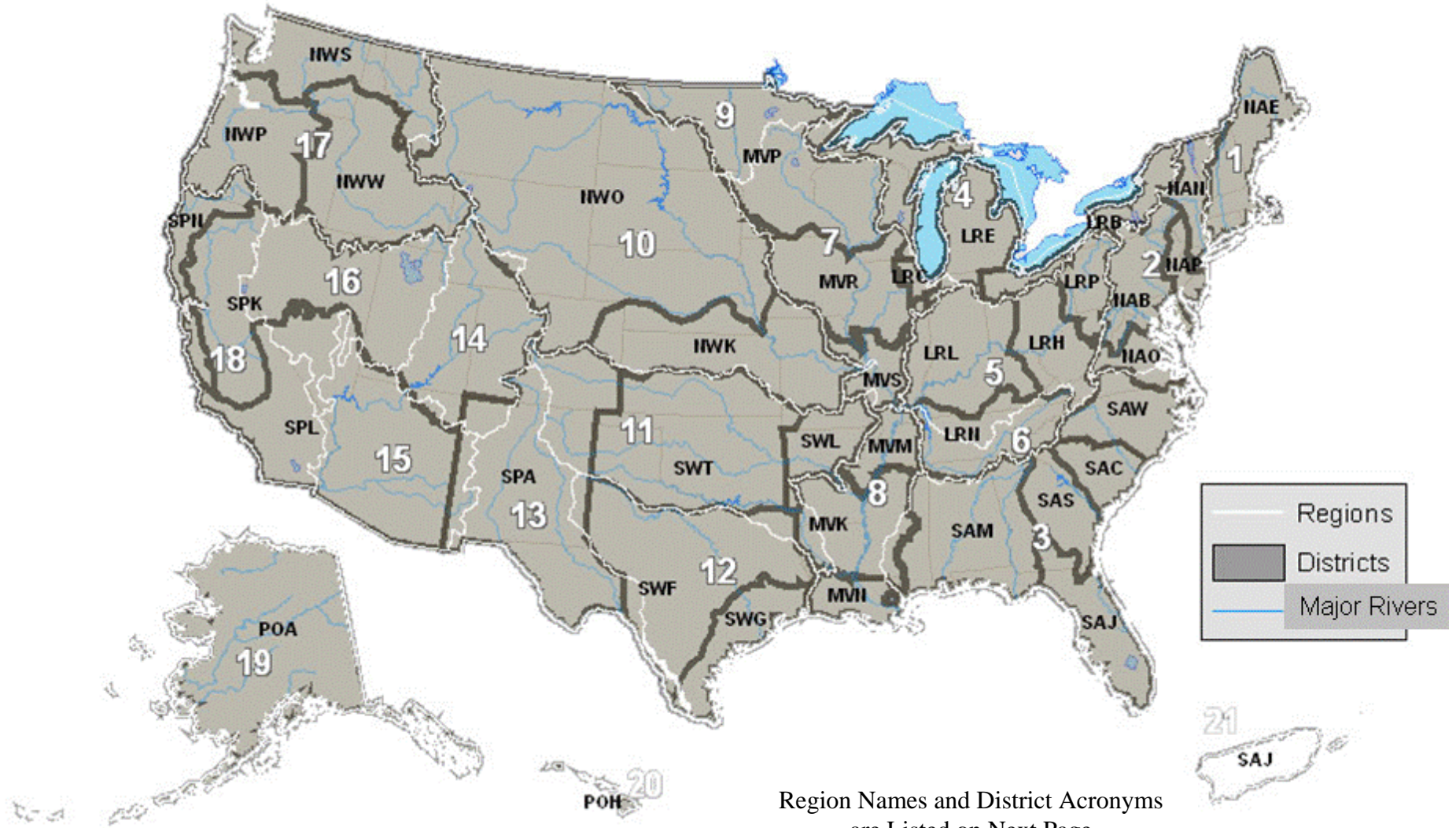
OPERATION
AND
MAINTENANCE

Operation and Maintenance Table of Contents

Operation and Maintenance	
Water Resources Regions Map.....	1
Justification of Estimate (Glossary of District Acronyms	2
Region 01- New England.....	3
Region 02- Mid Atlantic	5
Region 03- South Atlantic Gulf	9
Region 04- Great Lakes	13
Region 05- Ohio.....	16
Region 06- Tennessee	20
Region 07- Upper Mississippi	22
Region 08- Lower Mississippi	25
Region 09- Souris Red Rainy	27
Region 10- Missouri	28
Region 11- Arkansas-White-Red.....	30
Region 12- Texas Gulf.....	33
Region 13- Rio Grande	35
Region 14- Upper Colorado.....	36
Region 15- Lower Colorado	37
Region 16- Great Basin.....	38
Region 17- Pacific Northwest.....	39
Region 18- California	41
Region 19- Alaska.....	43
Region 20- Hawaii	44
Region 21- Caribbean	45
O&M Summary By Region Chart	46
Flood Control, Mississippi River and Tributaries (MR&T)	47

APPROPRIATION TITLE: Flood Control, Mississippi River and Tributaries (MR&T) (Maintenance) FY 2007

WATER RESOURCES REGIONS



Region Names and District Acronyms are Listed on Next Page

JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, FY 2007

This appropriation funds operation, maintenance, and related activities at the water resources projects that the Corps Engineers operates and maintains. Work to be accomplished consists of dredging, repair, and operation of structures and other facilities, as authorized in the various River and Harbor, Flood Control, and Water Resources Development Acts. The work is accomplished in the following water resource regions as delineated by watershed boundaries:

Region 01 New England
Region 02 Mid-Atlantic
Region 03 South Atlantic-Gulf
Region 04 Great Lakes
Region 05 Ohio
Region 06 Tennessee
Region 07 Upper Mississippi

Region 08 Lower Mississippi
Region 09 Souris-Red-Rainy
Region 10 Missouri
Region 11 Arkansas-White-Red
Region 12 Texas-Gulf
Region 13 Rio Grande
Region 14 Upper Colorado

Region 15 Lower Colorado
Region 16 Great Basin
Region 17 Pacific Northwest
Region 18 California
Region 19 Alaska
Region 20 Hawaii
Region 21 Caribbean

GLOSSARY OF DISTRICT ACRONYMS

LRB Buffalo District
LRC Chicago District
LRD Great Lakes & Ohio River Division
LRE Detroit District
LRH Huntington District
LRL Louisville District
LRN Nashville District
LRP Pittsburgh District
MVD Mississippi Valley Division
MVK Vicksburg District
MVM Memphis District
MVN New Orleans District
MVP St. Paul District
MVR Rock Island District
MVS St. Louis District
NAB Baltimore District

NAD North Atlantic Division
NAE New England District
NAN New York District
NAO Norfolk District
NAP Philadelphia District
NWD Northwestern Division
NWK Kansas City District
NWO Omaha District
NWP Portland District
NWS Seattle District
NWW Walla Walla District
POA Alaska District
POD Pacific Ocean Division
POH Honolulu District
SAC Charleston District
SAD South Atlantic Division

SAJ Jacksonville District
SAM Mobile District
SAS Savannah District
SAW Wilmington District
SPD South Pacific Division
SPL Los Angeles District
SPK Sacramento District
SPN San Francisco District
SPA Albuquerque District
SWD Southwestern Division
SWF Fort Worth District
SWG Galveston District
SWL Little Rock District
SWT Tulsa District

JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, FY 2007

Region 01 New England -- The drainage within the United States that ultimately discharges into: (a) the Bay of Fundy; (b) the Atlantic Ocean within and between the states of Maine and Connecticut; (c) Long Island Sound north of the New York-Connecticut state line; and (d) the Riviere St. Francois, a tributary of the St. Lawrence River. Includes all of Maine, New Hampshire and Rhode Island and parts of Connecticut, Massachusetts, New York, and Vermont.

Projects funded in the FY 2007 budget for operation, maintenance, and rehabilitation are as follows:

Connecticut

Black Rock Lake, CT
Colebrook River Lake, CT
Hancock Brook Lake, CT
Hop Brook Lake, CT
Inspection Of Completed Works, CT
Long Island Sound, CT & NY
Mansfield Hollow Lake, CT
Northfield Brook Lake, CT
Project Condition Surveys, CT
Stamford Hurricane Barrier, CT
Thomaston Dam, CT
West Thompson Lake, CT

Massachusetts

Barre Falls Dam, MA
Birch Hill Dam, MA
Buffumville Lake, MA
Cape Cod Canal, MA
Charles River Natural Valley Storage Area,
MA

Conant Brook Lake, MA
East Brimfield Lake, MA
Hodges Village Dam, MA
Inspection Of Completed Works, MA
Knightville Dam, MA
Littleville Lake, MA
New Bedford Fairhaven And Acushnet
Hurricane Barrier, MA
Project Condition Surveys, MA
Salem Harbor, MA
Tully Lake, MA
West Hill Dam, MA
Westville Lake, MA

Maine

Bucks Harbor, Machiasport, ME
Disposal Area Monitoring, ME
Inspection Of Completed Works, ME
Portland Harbor, ME
Project Condition Surveys, ME
Surveillance Of Northern Boundary Waters,
ME

New Hampshire

Blackwater Dam, NH
Edward Macdowell Lake, NH
Franklin Falls Dam, NH
Hopkinton - Everett Lakes, NH
Inspection Of Completed Works, NH
Otter Brook Lake, NH
Project Condition Surveys, NH
Surry Mountain Lake, NH

Rhode Island

Inspection Of Completed Works, RI
Point Judith Pond Hbr Of Refuge, RI
Project Condition Surveys, RI

Vermont

Ball Mountain Lake, VT
Inspection Of Completed Works, VT
North Hartland Lake, VT
North Springfield Lake, VT
Townshend Lake, VT
Union Village Dam, VT

1/ Projects funded in the FY 2007 budget for minimal operation and maintenance.

JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, FY 2007

Region 01 New England -- Continued

In addition, funding may be reallocated to the following projects that were included in the FY 2006 budget, where necessary to complete a useful increment of work for which FY 2006 funding proves to be insufficient.

Maine

Bass Harbor, ME
Carvers Harbor, ME

Massachusetts

Weymouth-Fore River, MA

The FY 2007 budget includes funding for operation, maintenance, and rehabilitation in Region 1 by business line as follows :

North Atlantic Division (NAD) (Dollars in Thousands)						
Business Program	FY 2004 Actual	FY 2005 Actual	FY 2006 Estimate	FY 2007 Projections		
				Operation	Maintenance and Rehabilitation	Total
Commercial Navigation	27,394	23,055	17,671	10,452	7,059	17,511
Flood and Coastal Storm Damage Reduction	27,846	23,436	17,963	13,939	3,861	17,800
Environment	3,370	2,836	2,174	1,970	184	2,154
Hydropower	0	0	0	0	0	0
Recreation	8,194	6,896	5,286	3,172	2,066	5,238
Water Supply	0	0	0	0	0	0
NAD Division Total in Region	66,803	56,223	43,094	29,533	13,170	42,703
Region 1 Total	66,803	56,223	43,094	29,533	13,170	42,703

JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, FY 2007

Region 02 Mid-Atlantic - The drainage within the United States that ultimately discharges into: (a) the Atlantic Ocean within and between the states of New York and Virginia; (b) Long Island Sound south of the New York-Connecticut State Line; and (c) the Riviere Richelieu, a tributary of the St. Lawrence River. Includes all of Delaware and New Jersey and the District of Columbia, and parts of Connecticut, Maryland, Massachusetts, New York, Pennsylvania, Vermont, Virginia, and West Virginia.

Projects funded in the FY 2007 budget for operation, maintenance and rehabilitation are as follows:

District Of Columbia	Scheduling Reservoir Operations, MD	Flushing Bay And Creek, NY
Inspection Of Completed Works, DC	Twitch Cove & Big Thorofare R., MD	Hudson River Channel, NY
Potomac And Anacostia Rivers, DC (Drift Removal)	Wicomico River, MD	Hudson River, NY (O&C) 1/
Potomac River Below Washington, DC	New Jersey	Hudson River, NY (Maint)
Project Condition Surveys, DC	Barnegat Inlet, NJ 1/	Inspection Of Completed Works, NY
Washington Harbor, DC 1/	Cape May Inlet To Lower Township, NJ	Jamaica Bay, NY 1/
Delaware	Cold Spring Inlet, NJ	Jones Inlet, NY 1/
Delaware Bay Coastline, Roosevelt Inlet To Lewes Beach, DE	Delaware River At Camden, NJ	Little Sodus Bay Harbor, NY
Delaware River, Philadelphia To The Sea, NJ, PA & De	Delaware River, Philadelphia, PA To Trenton, NJ	Long Island Intracoastal Waterway, NY 1/
Intracoastal Waterway, Rehoboth Bay To Delaware Bay, DE 1/	Inspection Of Completed Works, NJ	Narrows Of Lake Champlain, VT & NY 1/
Mispillion River, DE	Lower Cape May Meadows, Cape May Point, NJ	New York And New Jersey Channels, NY
Murderkill River, DE	Manasquan River, NJ	New York Harbor, NY
Project Condition Surveys, DE	New Jersey Intracoastal Waterway, NJ 1/	New York Harbor, NY & NJ (Drift Removal)
Wilmington Harbor, DE	Newark Bay, Hackensack And Passaic Rivers, NJ	New York Harbor, NY (Prevention Of Obstructive Deposits)
Maryland	Passaic River Flood Warning Systems, NJ	Project Condition Surveys, NY
Assateague Island, MD	Project Condition Surveys, NJ	Southern New York Flood Control Projects, NY
Baltimore Harbor And Chan. (50 Foot), MD	Raritan River, NJ	Whitney Point Lake, NY
Baltimore Harbor, MD (Drift Removal)	Salem River, NJ 1/	Pennsylvania
Inspection Of Completed Works, MD	New York	Alvin R Bush Dam, PA
Intracoastal Waterway, Delaware R To Chesapeake Bay, DE & MD	Almond Lake, NY	Aylesworth Creek Lake, PA
Ocean City Harbor And Inlet And Sinepuxent Bay, MD 1/	Arkport Dam, NY	Beltzville Lake, PA
Poplar Island, MD	East River, NY	Blue Marsh Lake, PA
Project Condition Surveys, MD	East Rockaway Inlet, NY	Cowanesque Lake, PA
	East Sidney Lake, NY	Curwensville Lake, PA
	Eastchester Creek, NY 1/	Foster Joseph Sayers Dam, PA
	Fire Island Inlet To Jones Inlet, NY	Francis E Walter Dam, PA

JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, FY 2007

Region 02 Mid-Atlantic - Continued

General Edgar Jadwin Dam And Reservoir,
PA
Inspection Of Completed Works, PA
Prompton Lake, PA
Raystown Lake, PA
Scheduling Reservoir Operations, PA
Schuylkill River, PA
Stillwater Lake, PA
Tioga - Hammond Lakes, PA

York Indian Rock Dam, PA
Virginia
Norfolk Harbor, VA (Prevention Of
Obstructive Deposits)
Gathright Dam And Lake Moomaw, VA
Hampton Rds, Norfolk & Newport News
Hbr, VA (Drift Removal)
Inspection Of Completed Works, VA

James River Channel, VA
Norfolk Harbor, VA
Project Condition Surveys, VA
Inspection Of Completed Works, Vt
West Virginia
Cumberland, MD And Ridgeley, WV
Jennings Randolph Lake, MD & Wv

1/ Projects funded in the FY 2007 budget for minimal operation and maintenance.

In addition, funding may be reallocated to the following projects that were included in the FY 2006 budget, where necessary to complete a useful increment of work for which FY 2006 funding proves to be insufficient.

Maryland

Nanticoke River Northwest Fork, MD

New Jersey

Raritan River To Arthur Kill Cut-Off, NJ
Shark River, NJ

New York

Browns Creek, NY
Buttermilk Channel, NY
Great South Bay, NY
Moriches Inlet, NY
Shinnecock Inlet, NY

JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, FY 2007

Region 02 Mid-Atlantic - Continued

The FY 2007 budget includes funding for operation, maintenance, and rehabilitation in Region 2 by business line as follows:

Great Lakes and Ohio River Division (LRD) (Dollars in Thousands)						
Business Program	FY 2004 Actual	FY 2005 Actual	FY 2006 Estimate	FY 2007 Projections		
				Operation	Maintenance and Rehabilitation	Total
Commercial Navigation	0	0	0	0	0	0
Flood and Coastal Storm Damage Reduction	7	175	0	12	0	12
Environment	0	0	0	0	0	0
Hydropower	0	0	0	0	0	0
Recreation	8	219	1	15	0	15
Water Supply	0	0	0	0	0	0
LRD Division Total in Region	15	394	1	27	0	27

JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, FY 2007

Region 02 Mid-Atlantic - Continued

North Atlantic Division (NAD) (Dollars in Thousands)						
Business Program	FY 2004 Actual	FY 2005 Actual	FY 2006 Estimate	FY 2007 Projections		
				Operation	Maintenance and Rehabilitation	Total
Commercial Navigation	116,796	113,833	113,459	10,102	110,609	120,711
Flood and Coastal Storm Damage Reduction	17,164	16,728	16,673	14,596	3,143	17,739
Environment	2,078	2,026	2,019	1,631	517	2,148
Hydropower	0	0	0	0	0	0
Recreation	5,834	5,686	5,668	3,803	2,227	6,030
Water Supply	44	42	42	45	0	45
NAD Division Total in Region	141,916	138,316	137,861	30,177	116,496	146,673
Region 2 Total	141,931	138,710	137,862	30,204	116,496	146,700

JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, FY 2007

Region 03 South Atlantic-Gulf The drainage that ultimately discharges into: (a) the Atlantic Ocean within and between the states of Virginia and Florida; (b) the Gulf of Mexico within and between the states of Florida and Louisiana; and (c) the associated waters. Includes all of Florida and South Carolina, and parts of Alabama, Georgia, Louisiana, Mississippi, North Carolina, Tennessee, and Virginia.

Projects funded in the FY 2007 budget for operation, maintenance and rehabilitation are as follows:

Alabama

Alabama - Coosa Comprehensive Water Study, AL
Alabama - Coosa River, AL 1/
Alabama - Coosa System, AL
Black Warrior And Tombigbee Rivers, AL
Gulf Intracoastal Waterway, AL
Inspection Of Completed Works, AL
Millers Ferry Lock And Dam, William 'Bill' Dannelly Lake, AL 1/
Mobile Harbor, AL
Project Condition Surveys, AL
Robert F Henry Lock And Dam, AL 1/
Scheduling Reservoir Operations, AL
West Point Dam And Lake, GA & AL

Florida

AIWW, Norfolk, VA To St Johns River, FL, GA, SC, NC & VA
Apalachicola, Chattahoochee And Flint Rivers, GA, AL & FL 1/
Brevard County, Canaveral Harbor, FL
Canaveral Harbor, FL
Central And Southern Florida, FL
Fernandina Harbor, FL
Fort Myers Beach, FL
Inspection Of Completed Works, FL
Intracoastal Waterway, Jacksonville To Miami, FL 1/
Jacksonville Harbor, FL
Lake Worth Sand Transfer Plant, FL

Miami River, FL
Nassau County, FL
Okeechobee Waterway, FL 1/
Palm Beach Harbor, FL
Pensacola Harbor, FL
Project Condition Surveys, FL
Removal Of Aquatic Growth, FL
Scheduling Reservoir Operations, FL
St John'S County, FL
Tampa Harbor, FL

Georgia

Allatoona Lake, GA 1/
Atlantic Intracoastal Waterway, GA
Brunswick Harbor, GA
Buford Dam And Lake Sidney Lanier, GA
Carters Dam And Lake, GA
Inspection Of Completed Works, GA
Jim Woodruff Lock And Dam, Lake Seminole, FL, AL & GA 1/
Project Condition Surveys, GA
Savannah Harbor, GA
Savannah River Below Augusta, GA 1/
Walter F George L&D, AL & GA 1/

Mississippi

Pearl River, MS & LA 1/
East Fork, Tombigbee River, MS
Gulfport Harbor, MS
Inspection Of Completed Works, MS
Okatibbee Lake, MS
Pascagoula Harbor, MS

Project Condition Surveys, MS
Tennessee - Tombigbee Waterway Wildlife Mitigation, AL & MS
Tennessee - Tombigbee Waterway, AL & MS

North Carolina

Atlantic Intracoastal Waterway, NC
B Everett Jordan Dam And Lake, NC
Cape Fear Riv. Above Wilmington, NC 1/
Falls Lake, NC
Inspection Of Completed Works, NC
John H Kerr Lake, VA & NC
Manteo (Shallowbag) Bay, NC
Morehead City Harbor, NC
New River Inlet, NC
Project Condition Surveys, NC
Rollinson Channel, NC
W Kerr Scott Dam And Reservoir, NC
Wilmington Harbor, NC

South Carolina

Atlantic Intracoastal Waterway, SC 1/
Charleston Harbor, SC
Cooper River, Charleston Harbor, SC
Folly Beach, SC
Georgetown Harbor, SC
Hartwell Lake, GA & SC
Inspection Of Completed Works, SC
J Strom Thurmond Lake, GA & SC
Project Condition Surveys, SC

JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, FY 2007

Region 03 South Atlantic-Gulf - Continued

South Carolina - Continued

Richard B Russell Dam And Lake, GA &
SC

Virginia

Atlantic Intracoastal Waterway - ACC, VA
Atlantic Intracoastal Waterway - DSC, VA

Chincoteague Harbor Of Refuge, VA
Chincoteague Inlet, VA
Philpott Lake, VA

Rudee Inlet, VA

1/ Projects funded in the FY 2007 budget for minimal operation and maintenance.

In addition, funding may be reallocated to the following projects that were included in the FY 2006 budget, where necessary to complete a useful increment of work for which FY 2006 funding proves to be insufficient.

Florida

Escambia And Conecuh Rivers, FL
Manatee Harbor, FL
Miami Harbor, FL
Panama City Harbor, FL

North Carolina

Masonboro Inlet And Connecting Channels,
NC
Silver Lake Harbor, NC

South Carolina

Folly River, SC
Waterway On The Coast Of Virginia,

JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, FY 2007

Region 03 South Atlantic-Gulf - Continued

The FY 2007 budget includes funding for operation, maintenance, and rehabilitation in Region 3 by business line as follows:

Mississippi River Division (MVD) (Dollars in Thousands)						
Business Program	FY 2004 Actual	FY 2005 Actual	FY 2006 Estimate	FY 2007 Projections		
				Operation	Maintenance and Rehabilitation	Total
Commercial Navigation	153	127	245	285	0	285
Flood and Coastal Storm Damage Reduction	4	3	6	7	0	7
Environment	0	0	0	0	0	0
Hydropower	0	0	0	0	0	0
Recreation	0	0	0	0	0	0
Water Supply	0	0	0	0	0	0
MVD Division Total in Region	157	130	251	292	0	292

JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, FY 2007

Region 03 South Atlantic-Gulf - Continued

North Atlantic Division (NAD) (Dollars in Thousands)						
Business Program	FY 2004 Actual	FY 2005 Actual	FY 2006 Estimate	FY 2007 Projections		
				Operation	Maintenance and Rehabilitation	Total
Commercial Navigation	5,151	3,150	4,028	1,798	2,018	3,816
Flood and Coastal Storm Damage Reduction	641	392	501	475	0	475
Environment	0	0	0	0	0	0
Hydropower	0	0	0	0	0	0
Recreation	0	0	0	0	0	0
Water Supply	0	0	0	0	0	0
NAD Division Total in Region	5,792	3,542	4,529	2,273	2,018	4,291
South Atlantic Division (SAD) (Dollars in Thousands)						
Business Program	FY 2004 Actual	FY 2005 Actual	FY 2006 Estimate	FY 2007 Projections		
				Operation	Maintenance and Rehabilitation	Total
Commercial Navigation	179,559	227,852	189,053	28,200	147,776	175,976
Flood and Coastal Storm Damage Reduction	23,461	29,771	24,702	15,049	7,944	22,993
Environment	13,259	16,824	13,960	10,880	2,114	12,994
Hydropower	53,335	67,680	56,155	19,876	32,395	52,271
Recreation	50,101	63,575	52,750	27,755	21,346	49,101
Water Supply	536	680	564	525	0	525
SAD Division Total in Region	320,251	406,382	337,183	102,285	211,575	313,860
Region Total	326,200	410,054	341,963	104,850	213,593	318,443

JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, FY 2007

Region 04 Great Lakes - The drainage within the United States that ultimately discharges into: (a) the Great Lakes system, including the lake surfaces, bays, and islands; and (b) the St. Lawrence River to the Riviere Richelieu drainage boundary. Includes parts of Illinois, Indiana, Michigan, Minnesota, New York, Ohio, Pennsylvania, and Wisconsin.

Projects funded in the FY 2007 budget for operation, maintenance and rehabilitation are as follows:

Illinois	Inspection Of Completed Works, MI	Inspection Of Completed Works, NY
Chicago Harbor, IL	Ludington Harbor, MI	Mt Morris Lake, NY
Chicago River, IL 1/	Manistee Harbor, MI	Oswego Harbor, NY
Inspection Of Completed Works, IL	Muskegon Harbor, MI	Project Condition Surveys, NY
Lake Michigan Diversion, IL	Ontonagon Harbor, MI	Rochester Harbor, NY
Project Condition Surveys, IL	Presque Isle Harbor, MI	Surveillance Of Northern Boundary Waters, NY
Surveillance Of Northern Boundary Wtrs, IL	Project Condition Surveys, MI	Ohio
Waukegan Harbor, IL	Rouge River, MI	Ashtabula Harbor, OH
Indiana	Saginaw River, MI	Cleveland Harbor, OH
Burns Waterway Harbor, IN	St Clair River, MI	Conneaut Harbor, OH
Calumet Harbor And River, IL & IN	St Joseph Harbor, MI	Fairport Harbor, OH
Indiana Harbor (Confi. Disposal Facility), IN	St Marys River, MI	Huron Harbor, OH
Indiana Harbor, IN	Surveillance Of Northern Boundary Waters, MI	Lorain Harbor, OH
Inspection Of Completed Works, IN		Sandusky Harbor, OH
Project Condition Surveys, IN		Toledo Harbor, OH
Surveillance Of Northern Boundary Wtrs, IN	Minnesota	Pennsylvania
	Inspection Of Completed Works, MN	Erie Harbor, PA
	Project Condition Surveys, MN	
	Surveillance Of Northern Boundary Waters, MN	Wisconsin
Michigan	Two Harbors, MN	Duluth - Superior Harbor, MN & WI
Alpena Harbor, MI		Fox River, WI
Channels In Lake St Clair, MI	New York	Green Bay Harbor, WI
Charlevoix Harbor, MI	Black Rock Chan. & Tonawanda Harbor, NY	Inspection Of Completed Works, WI
Detroit River, MI	Buffalo Harbor, NY	Manitowoc Harbor, WI
Grand Haven Harbor, MI	Dunkirk Harbor, NY 1/	Milwaukee Harbor, WI
Grays Reef Passage, MI		Project Condition Surveys, WI
Holland Harbor, MI		

1/ Projects funded in the FY 2007 budget for minimal operation and maintenance

JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, FY 2007

Region 04 Great Lakes - Continued

In addition, funding may be reallocated to the following projects that were included in the FY 2006 budget, where necessary to complete a useful increment of work for which FY 2006 funding proves to be insufficient.

Michigan	Lac La Belle, MI
Grand Marais Harbor, MI	Monroe Harbor, MI
Keweenaw Waterway, MI	

The FY 2007 budget includes funding for operation, maintenance, and rehabilitation in Region 4 by business line as follows:

Great Lakes and Ohio River Division (LRD) (Dollars in Thousands)						
Business Program	FY 2004 Actual	FY 2005 Actual	FY 2006 Estimate	FY 2007 Projections		
				Operation	Maintenance and Rehabilitation	Total
Commercial Navigation	92,600	72,748	63,862	15,739	70,010	85,749
Flood and Coastal Storm Damage Reduction	8,853	6,955	6,106	6,361	1,837	8,198
Environment	281	221	194	260	0	260
Hydropower	1,106	869	763	432	592	1,024
Recreation	1,417	1,113	977	689	623	1,312
Water Supply	0	0	0	0	0	0
LRD Division Total in Region	104,256	81,906	71,901	23,481	73,062	96,543

JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, FY 2007

Region 04 Great Lakes - Continued

Mississippi River Division (MVD) (Dollars in Thousands)						
Business Program	FY 2004 Actual	FY 2005 Actual	FY 2006 Estimate	FY 2007 Projections		
				Operation	Maintenance and Rehabilitation	Total
Commercial Navigation	0	0	0	0	0	0
Flood and Coastal Storm Damage Reduction	87	95	101	117	0	117
Environment	0	0	0	0	0	0
Hydropower	0	0	0	0	0	0
Recreation	0	0	0	0	0	0
Water Supply	0	0	0	0	0	0
MVD Division Total in Region	87	95	101	117	0	117
Region 4 Total	104,343	82,001	72,002	23,598	73,062	96,660

JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, FY 2007

Region 05 Ohio - The drainage of the Ohio River Basin, excluding the Tennessee River Basin. Includes parts of Illinois, Indiana, Kentucky, Maryland, New York, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia and West Virginia.

Projects funded in the FY 2007 budget for operation, maintenance and rehabilitation are as follows:

Indiana
Markland Locks And Dam, KY & IN (Major Rehab)
Brookville Lake, IN
Cagles Mill Lake, IN
Cecil M Harden Lake, IN
Inspection Of Completed Works, IN
J Edward Roush Lake, IN
Mississinewa Lake, IN
Monroe Lake, IN
Patoka Lake, IN
Salamonie Lake, IN
Surveillance Of Northern Boundary Waters, IN

Kentucky
Barren River Lake, KY
Big Sandy Harbor, KY
Buckhorn Lake, KY
Carr Creek Lake, KY
Cave Run Lake, KY
Dewey Lake, KY
Fishtrap Lake, KY
Grayson Lake, KY
Green And Barren Rivers, KY
Green River Lake, KY
Inspection Of Completed Works, KY
Kentucky River, KY
Laurel River Lake, KY

Martins Fork Lake, KY
Middlesboro Cumberland River Basin, KY
Nolin Lake, KY
Paintsville Lake, KY
Rough River Lake, KY
Taylorsville Lake, KY
Wolf Creek Dam, Lake Cumberland, KY
Yatesville Lake, KY

Ohio
Alum Creek Lake, OH
Berlin Lake, OH
Caesar Creek Lake, OH
Clarence J Brown Dam, OH
Deer Creek Lake, OH
Delaware Lake, OH
Dillon Lake, OH
Inspection Of Completed Works, OH
Michael J Kirwan Dam And Reservoir, OH
Mosquito Creek Lake, OH
Muskingum River Lakes, OH
North Branch Kokosing River Lake, OH
Ohio River Locks And Dams, KY, IL, IN & OH
Ohio River Locks And Dams, WV, KY & OH
Ohio River Open Channel Work, KY, IL, IN & OH
Ohio River Open Channel Work, WV, KY & OH

Paint Creek Lake, OH
Project Condition Surveys, OH
Surveillance Of Northern Boundary Waters, OH
Tom Jenkins Dam, OH
West Fork Of Mill Creek Lake, OH
William H Harsha Lake, OH

Pennsylvania
Allegheny River, PA
Conemaugh River Lake, PA
Crooked Creek Lake, PA
East Branch Clarion River Lake, PA
Inspection Of Completed Works, PA
Johnstown, PA
Kinzua Dam And Allegheny Reservoir, PA
Loyalhanna Lake, PA
Mahoning Creek Lake, PA
Monongahela River, PA
Project Condition Surveys, PA
Punxsutawney, PA
Shenango River Lake, PA
Surveillance Of Northern Boundary Waters, PA
Tionesta Lake, PA
Union City Lake, PA
Woodcock Creek Lake, PA
Youghiogheny River Lake, PA & MD

JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, FY 2007

Region 05 Ohio - Continued

Tennessee

Barkley Dam And Lake Barkley, KY & TN
Center Hill Lake, TN
Cheatham Lock And Dam, TN
Cordell Hull Dam And Reservoir, TN
Dale Hollow Lake, TN
J Percy Priest Dam And Reservoir, TN
Old Hickory Lock And Dam, TN

Virginia

John W Flannagan Dam And Reservoir, VA
North Fork Of Pound River Lake, VA

West Virginia

Beech Fork Lake, WV
Bluestone Lake, WV
Burnsville Lake, WV
East Lynn Lake, WV
Elkins, WV
Inspection Of Completed Works, WV

Kanawha River Locks And Dams, WV
Ohio River Locks And Dams, PA, OH & WV
Ohio River Open Channel Work, PA, OH & WV
R D Bailey Lake, WV
Stonewall Jackson Lake, WV
Summersville Lake, WV
Sutton Lake, WV
Tygart Lake, WV

1/ Projects funded in the FY 2007 budget for minimal operation and maintenance.

In addition, funding may be reallocated to the following projects that were included in the FY 2006 budget, where necessary to complete a useful increment of work for which FY 2006 funding proves to be insufficient.

Ohio

Massillon Local Protection Project, OH
Roseville Local Protection Project, OH

JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, FY 2007

Region 05 Ohio - Continued

The FY 2007 budget includes funding for operation, maintenance, and rehabilitation in Region 5 by business line as follows:

Great Lakes and Ohio River Division (LRD) (Dollars in Thousands)						
Business Program	FY 2004 Actual	FY 2005 Actual	FY 2006 Estimate	FY 2007 Projections		
				Operation	Maintenance and Rehabilitation	Total
Commercial Navigation	121,009	135,007	121,803	67,570	64,702	132,272
Flood and Coastal Storm Damage Reduction	52,433	58,498	52,777	52,551	4,762	57,313
Environment	5,657	6,312	5,695	5,660	524	6,184
Hydropower	19,399	21,644	19,527	9,663	11,542	21,205
Recreation	29,281	32,668	29,473	26,115	5,891	32,006
Water Supply	235	262	237	257	0	257
LRD Division Total in Region	228,014	254,391	229,511	161,816	87,421	249,237
Mississippi River Division (MVD) (Dollars in Thousands)						
Business Program	FY 2004 Actual	FY 2005 Actual	FY 2006 Estimate	FY 2007 Projections		
				Operation	Maintenance and Rehabilitation	Total
Commercial Navigation	0	0	0	0	0	0
Flood and Coastal Storm Damage Reduction	13	14	31	15	0	15
Environment	0	0	0	0	0	0
Hydropower	0	0	0	0	0	0
Recreation	0	0	0	0	0	0
Water Supply	0	0	0	0	0	0
MVD Division Total in Region	13	14	31	15	0	15

JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, FY 2007

Region 05 Ohio - Continued

North Atlantic Division (NAD) (Dollars in Thousands)						
Business Program	FY 2004 Actual	FY 2005 Actual	FY 2006 Estimate	FY 2007 Projections		
				Operation	Maintenance and Rehabilitation	Total
Commercial Navigation	0	0	0	0	0	0
Flood and Coastal Storm Damage Reduction	62	30	30	79	0	79
Environment	0	0	0	0	0	0
Hydropower	0	0	0	0	0	0
Recreation	0	0	0	0	0	0
Water Supply	0	0	0	0	0	0
NAD Division Total in Region	62	30	30	79	0	79
Region 5 Total	228,089	254,435	229,572	161,910	87,421	249,331

JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, FY 2007

Region 06 Tennessee - The drainage of the Tennessee River Basin. Includes parts of Alabama, Georgia, Kentucky, Mississippi, North Carolina, Tennessee, and Virginia.

Projects funded in the FY 2007 budget for operation, maintenance and rehabilitation are as follows:

Kentucky	Tennessee	Project Condition Surveys, TN
Project Condition Surveys, KY	Chickamauga Lock, TN Tennessee River, TN	Inspection Of Completed Works, TN

The FY 2007 budget includes funding for operation, maintenance, and rehabilitation in Region 6 by business line as follows:

Mississippi River Division (MVD) (Dollars in Thousands)						
Business Program	FY 2004 Actual	FY 2005 Actual	FY 2006 Estimate	FY 2007 Projections		
				Operation	Maintenance and Rehabilitation	Total
Commercial Navigation	4	3	5	4	0	4
Flood and Coastal Storm Damage Reduction	127	119	189	141	0	141
Environment	0	0	0	0	0	0
Hydropower	0	0	0	0	0	0
Recreation	0	0	0	0	0	0
Water Supply	0	0	0	0	0	0
MVD Division Total in Region	131	122	194	145	0	145

JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, FY 2007

Region 06 Tennessee - Continued

Great Lakes and Ohio River Division (LRD) (Dollars in Thousands)						
Business Program)	FY 2004 Actual	FY 2005 Actual	FY 2006 Estimate	FY 2007 Projections		
				Operation	Maintenance and Rehabilitation	Total
Commercial Navigation	15,781	16,341	21,406	5,670	14,886	20,556
Flood and Coastal Storm Damage Reduction	0	0	0	0	0	0
Environment	0	0	0	0	0	0
Hydropower	0	0	0	0	0	0
Recreation	0	0	0	0	0	0
Water Supply	0	0	0	0	0	0
LRD Division Total in Region	15,781	16,341	21,406	5,670	14,886	20,556
Region 6 Total	15,912	16,463	21,600	5,815	14,886	20,701

JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, FY 2007

Region 07 Upper Mississippi - The drainage of the Mississippi River Basin above the confluence with the Ohio River, excluding the Missouri River Basin. Includes parts of Illinois, Indiana, Iowa, Michigan, Minnesota, Missouri, South Dakota, and Wisconsin.

Projects funded in the FY 2007 budget for operation, maintenance and rehabilitation are as follows:

Iowa
Coralville Lake, IA
Inspection Of Completed Works, IA
Lock And Dam 11, Mississippi River, IA
(Major Rehab)
Lock And Dam 19, Mississippi River, IA
(Major Rehab)
Red Rock Dam And Lake Red Rock, IA
Saylorville Lake, IA

Illinois
Carlyle Lake, IL
Farm Creek Reservoirs, IL
Inspection Of Completed Works, IL
Kaskaskia River Navigation, IL
Lake Shelbyville, IL
Lock And Dam 24, Miss. River, IL & MO
(Major Rehab)

Lock And Dam 27, Mississippi River, IL
(Major Rehab)
Miss River Btwn Mo River And Minneapolis
(Mvr Portion), IL
Miss River Btwn Mo River And Minneapolis
(Mvs Portion), IL
Miss River Btwn The Ohio And Mo Rivers
(Reg Works), MO & IL
Rend Lake, IL

Indiana
Illinois Waterway (MVR Portion), IL & IN
Illinois Waterway (MVS Portion), IL & IN
Minnesota
Lac Qui Parle Lakes, Minnesota River, MN
Minnesota River, MN

Miss River Btwn Mo River And Minneapolis (MVP
Portion), MN
Red Lake Reservoir, MN
Reservoirs At Headwaters Of Miss.River, MN
Missouri
Clarence Cannon Dam And Mark Twain Lake, MO
Inspection Of Completed Works, MO
Project Condition Surveys, MO
Union Lake, MO

South Dakota
Bigstone Lake Whetstone River, MN & SD
Wisconsin
Eau Galle River Lake, WI
Inspection Of Completed Works, WI
Project Condition Surveys, WI
Surveillance Of Northern Boundary Waters, WI

1/ Projects funded in the FY 2007 budget for minimal operation and maintenance.

JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, FY 2007

Region 07 Upper Mississippi -Continued

The FY 2007 budget includes funding for operation, maintenance, and rehabilitation in Region 7 by business line as follows:

Great Lakes and Ohio River Division (LRD) (Dollars in Thousands)						
Business Program	FY 2004 Actual	FY 2005 Actual	FY 2006 Estimate	FY 2007 Projections		
				Operation	Maintenance and Rehabilitation	Total
Commercial Navigation	0	0	0	0	0	0
Flood and Coastal Storm Damage Reduction	620	661	754	538	0	538
Environment	0	0	0	0	0	0
Hydropower	0	0	0	0	0	0
Recreation	0	0	0	0	0	0
Water Supply	0	0	0	0	0	0
LRD Division Total in Region	620	661	754	538	0	538
Mississippi River Division (MVD) (Dollars in Thousands)						
Business Program	FY 2004 Actual	FY 2005 Actual	FY 2006 Estimate	FY 2007 Projections		
				Operation	Maintenance and Rehabilitation	Total
Commercial Navigation	140,359	160,307	159,634	68,952	126,932	195,884
Flood and Coastal Storm Damage Reduction	11,771	13,444	13,388	12,438	3,990	16,428
Environment	7,707	8,802	8,766	8,163	2,593	10,756
Hydropower	1,065	1,217	1,212	1,003	484	1,487
Recreation	16,238	18,546	18,468	16,163	6,499	22,662
Water Supply	147	168	167	155	50	205
MVD Division Total in Region	177,288	202,484	201,635	106,874	140,548	247,422

JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, FY 2007

Region 07 Upper Mississippi -Continued

Southwestern Division (SWD) (Dollars in Thousands)						
Business Program	FY 2004 Actual	FY 2005 Actual	FY 2006 Estimate	FY 2007 Projections		
				Operation	Maintenance and Rehabilitation	Total
Commercial Navigation	0	0	0	0	0	0
Flood and Coastal Storm Damage Reduction	7	8	7	7	0	7
Environment	0	0	0	0	0	0
Hydropower	0	0	0	0	0	0
Recreation	0	0	0	0	0	0
Water Supply	0	0	0	0	0	0
SWD Division Total in Region	7	8	7	7	0	7
Region 7 Total	177,915	203,153	202,396	107,419	140,548	247,967

JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, FY 2007

Region 08 Lower Mississippi - The drainage of: (a) the Mississippi River below its confluence with the Ohio River, excluding the Arkansas, Red, and White River Basins above the points of highest backwater effect of the Mississippi River in those basins; and (b) coastal streams that ultimately discharge into the Gulf of Mexico from the Pearl River Basin boundary to the Sabine River and Sabine Lake drainage boundary. Includes parts of Arkansas, Kentucky Louisiana, Mississippi, Missouri, and Tennessee.

Projects funded in the FY 2007 budget for operation, maintenance and rehabilitation are as follows:

Arkansas	Bayou Lafourche And Lafourche Jump Waterway, LA	Ouachita And Black Rivers, AR & LA Removal Of Aquatic Growth, LA
Blakely Mt Dam, LAke Ouachita, AR	Bayou Teche, LA	Missouri
Degray Lake, AR	Calcasieu River And Pass, LA	Caruthersville Harbor, MO 1/
Helena Harbor, Phillips County, AR 1/	Freshwater Bayou, LA	New Madrid Harbor, MO
Narrows Dam, LAke Greeson, AR	Gulf Intracoastal Waterway, LA	Mississippi
Osceola Harbor, AR 1/	Houma Navigation Canal, LA 1/	Mouth Of Yazoo River, MS
White River, AR 1/	Inspection Of Completed Works, LA	Rosedale Harbor, MS
Kentucky	Lake Providence Harbor, LA 1/	Tennessee
Elvis Stahr (Hickman) Harbor, KY 1/	Madison Parish Port, LA 1/	Wolf River Harbor, YN
Louisiana	Mermentau River, LA	
Atchafalaya River And Bayous Chene, Boeuf And Black, LA	Mississippi River, Baton Rouge To The Gulf Of Mexico, LA	

1/ Projects funded in the FY 2007 budget for minimal operation and maintenance.

In addition, funding may be reallocated to the following projects that were included in the FY 2006 budget, where necessary to complete a useful increment of work for which FY 2006 funding proves to be insufficient.

Louisiana
Bayou Pierre, LA
Mississippi River, Gulf Outlet, LA

JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, FY 2007

Region 08 Lower Mississippi - Continued

The FY 2007 budget includes funding for operation, maintenance, and rehabilitation in Region 8 by business line as follows:

Mississippi River Division (MVD) (Dollars in Thousands)						
Business Program	FY 2004 Actual	FY 2005 Actual	FY 2006 Estimate	FY 2007 Projections		
				Operation	Maintenance and Rehabilitation	Total
Commercial Navigation	143,930	316,872	295,577	30,121	85,966	116,087
Flood and Coastal Storm Damage Reduction	2,136	4,703	4,387	1,723	0	1,723
Environment	834	1,837	1,714	598	75	673
Hydropower	14,174	31,205	29,108	3,643	7,789	11,432
Recreation	13,264	29,201	27,239	8,263	2,435	10,698
Water Supply	0	0	0	0	0	0
MVD Division Total in Region	174,338	383,818	358,024	44,348	96,265	140,613
Region 8 Total	174,338	383,818	358,024	44,348	96,265	140,613

JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, FY 2007

Region 09 Souris-Red-Rainy - The drainage within the United states of the Lake of the Woods and the Rainy, Red, and Souris River Basins that ultimately discharges into Lake Winnipeg and Hudson Bay. Includes parts of Minnesota, North Dakota, and South Dakota. **Region 10 Missouri Region** -- The drainage within the United states of: (a) the Missouri River Basin, (b) the Saskatchewan River Basin, and (c) several small closed basins. Includes all of Nebraska and parts of Colorado, Iowa, Kansas, Minnesota, Missouri, Montana, North Dakota, South Dakota, and Wyoming.

Projects funded in the FY 2007 budget for operation, maintenance and rehabilitation are as follows:

Minnesota

Lake Traverse, SD & MN
 Orwell Lake, MN
 Project Condition Surveys, MN
 Surveillance Of Northern Boundary Waters, MN

North Dakota

Homme Lake, ND
 Inspection Of Completed Works, ND
 Lake Ashtabula And Baldhill Dam, ND
 Souris River, ND
 Surveillance Of Northern Boundary Waters, ND

The FY 2007 budget includes funding for operation, maintenance, and rehabilitation in Region 9 by business line as follows:

Mississippi River Division (MVD) (Dollars in Thousands)						
Business Program	FY 2004 Actual	FY 2005 Actual	FY 2006 Estimate	FY 2007 Projections		
				Operation	Maintenance and Rehabilitation	Total
Commercial Navigation	21	21	18	21	0	21
Flood and Coastal Storm Damage Reduction	2,192	2,245	1,907	2,166	63	2,229
Environment	272	279	237	277	0	277
Hydropower	0	0	0	0	0	0
Recreation	464	475	404	463	9	472
Water Supply	0	0	0	0	0	0
MVD Division Total in Region	2,949	3,020	2,566	2,927	72	2,999
Region 9 Total	2,949	3,020	2,566	2,927	72	2,999

JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, FY 2007

Region 10 Missouri - The drainage within the United states of: (a) the Missouri River Basin, (b) the Saskatchewan River Basin, and (c) several small closed basins. Includes all of Nebraska and parts of Colorado, Iowa, Kansas, Minnesota, Missouri, Montana, North Dakota, South Dakota, and Wyoming.

Projects funded in the FY 2007 budget for operation, maintenance and rehabilitation are as follows:

Colorado

Bear Creek Lake, CO
Chatfield Lake, CO
Cherry Creek Lake, CO
Inspection Of Completed Works, CO

Iowa

Inspection Of Completed Works, IA
Missouri River - Kenslers Bend, NE To
Sioux City, IA
Rathbun Lake, IA

Kansas

Clinton Lake, KS
Hillsdale Lake, KS
Kanopolis Lake, KS
Melvern Lake, KS
Milford Lake, KS
Perry Lake, KS
Pomona Lake, KS
Tuttle Creek Lake, KS
Wilson Lake, KS

Missouri

Harry S Truman Dam And Reservoir, MO
Inspection Of Completed Works, MO

Little Blue River Lakes, MO
Long Branch Lake, MO
Missouri River - Rulo To Mouth, IA, NE, KS
& MO
Pomme De Terre Lake, MO
Scheduling Reservoir Operations, MO
Smithville Lake, MO
Stockton Lake, MO

Montana

Ft Peck Dam And Lake, MT
Inspection Of Completed Works, MT
Scheduling Reservoir Operations, MT
Missouri R Between Fort Peck Dam And
Gavins Pt, SD, MT & ND
Missouri R Master Wtr Control Manual, NE,
IA, KS, MO, MT, ND

North Dakota

Bowman - Haley Lake, ND
Garrison Dam, Lake Sakakawea, ND
Inspection Of Completed Works, ND
Pipestem Lake, ND
Scheduling Reservoir Operations, ND

Nebraska

Harlan County Lake, NE
Inspection Of Completed Works, NE
Missouri River - Sioux City To Rulo, IA &
NE
Papillion Creek And Tributaries Lakes, NE
Papio Creek, NE
Salt Creek And Tributaries, NE

South Dakota

Big Bend Dam, Lake Sharpe, SD
Cold Brook Lake, SD
Cottonwood Springs Lake, SD
Fort Randall Dam, Lake Francis Case, SD
Gavins Point Dam, Lewis And Clark Lake,
NE & SD
Inspection Of Completed Works, SD
Missouri National Recreational River, NE &
SD
Oahe Dam, Lake Oahe, SD & ND
Scheduling Reservoir Operations, SD

Wyoming

Inspection Of Completed Works, WY
Scheduling Reservoir Operations, WY

1/ Projects funded in the FY 2007 budget for minimal operation and maintenance.

JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, FY 2007

Region 10 Missouri - Continued

In addition, funding may be reallocated to the following projects that were included in the FY 2006 budget, where necessary to complete a useful increment of work for which FY 2006 funding proves to be insufficient.

North Dakota

Bowman - Haley Lake, ND

The FY 2007 budget includes funding for operation, maintenance, and rehabilitation in Region 10 by business line as follows:

Northwestern Division (NWD) (Dollars in Thousands)						
Business Program	FY 2004 Actual	FY 2005 Actual	FY 2006 Estimate	FY 2007 Projections		
				Operation	Maintenance and Rehabilitation	Total
Commercial Navigation	49,990	48,559	43,114	5,707	71,569	77,276
Flood and Coastal Storm Damage Reduction	23,244	22,579	20,047	30,322	5,610	35,932
Environment	10,024	9,737	8,646	9,949	5,547	15,496
Hydropower	20,954	20,354	18,072	15,736	16,655	32,391
Recreation	12,314	11,961	10,620	14,553	4,482	19,035
Water Supply	45	44	39	70	0	70
NWD Division Total in Region	116,571	113,234	100,537	76,337	103,863	180,200
Region 10 Total	116,571	113,234	100,537	76,337	103,863	180,200

JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, FY 2007

Region 11 Arkansas-White-Red - The drainage of the Arkansas, White, and Red River Basins above the points of highest backwater effect of the Mississippi River. Includes all of Oklahoma and parts of Arkansas, Colorado, Kansas, Louisiana, Missouri, New Mexico, and Texas.

Projects funded in the FY 2007 budget for operation, maintenance and rehabilitation are as follows:

Arkansas	Pearson - Skubitz Big Hill Lake, KS	Keystone Lake, OK
Beaver Lake, AR	Scheduling Reservoir Operations, KS	Mcclellan-Kerr Arkansas River Navigation System, OK
Blue Mountain Lake, AR	Toronto Lake, KS	Oologah Lake, OK
Bull Shoals Lake, AR	Louisiana	Optima Lake, OK
Dardanelle Lock And Dam, AR	Bayou Bodcau Reservoir, LA	Pensacola Reservoir, LA
Dequeen Lake, AR	Caddo Lake, LA	OK
Dierks Lake, AR	J Bennett Johnston Waterway, LA	Pine Creek Lake, OK
Gillham Lake, AR	Wallace Lake, LA	Robert S Kerr Lock And Dam And Reservoirs, OK
Greers Ferry Lake, AR	Missouri	Sardis Lake, OK
Inspection Of Completed Works, AR	Clearwater Lake, MO	Scheduling Reservoir Operations, OK
Mcclellan-Kerr Arkansas River Navigation System, AR	Table Rock Lake, MO	Skiatook Lake, OK
Millwood Lake, AR	Oklahoma	Tenkiller Ferry Lake, OK
Nimrod Lake, AR	Conchas Lake, NM	Waurika Lake, OK
Norfork Lake, AR	Oklahoma	Webbers Falls Lock And Dam, OK
Ozark - Jeta Taylor Lock And Dam, AR	Arcadia Lake, OK	Wister Lake, OK
Project Condition Surveys, AR	Birch Lake, OK	Texas
Colorado	Broken Bow Lake, OK	Arkansas - Red River Basins Chloride Control – Area Viii, TX
John Martin Reservoir, CO	Canton Lake, OK	Denison Dam, LA
Trinidad Lake, CO	Copan Lake, OK	Texoma, TX
Kansas	Eufaula Lake, OK	Ferrells Bridge Dam, LA
Council Grove Lake, KS	Fort Gibson Lake, OK	O' The Pines, TX
El Dorado Lake, KS	Fort Supply Lake, OK	Inspection Of Completed Works, TX
Elk City Lake, KS	Great Salt Plains Lake, OK	Jim Chapman Lake, TX
Fall River Lake, KS	Heyburn Lake, OK	Lake Kemp, TX
Inspection Of Completed Works, KS	Hugo Lake, OK	Pat Mayse Lake, TX
John Redmond Dam And Reservoir, KS	Hulah Lake, OK	Scheduling Reservoir Operations, TX
Marion Lake, KS	Inspection Of Completed Works, OK	Wright Patman Dam And Lake, TX
	Kaw Lake, OK	

JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, FY 2007

Region 11 Arkansas-White-Red - Continued

The FY 2007 budget includes funding for operation, maintenance, and rehabilitation in Region 11 by business line as follows:

Mississippi River Division (MVD) (Dollars in Thousands)						
Business Program	FY 2004 Actual	FY 2005 Actual	FY 2006 Estimate	FY 2007 Projections		
				Operation	Maintenance and Rehabilitation	Total
Commercial Navigation	9,319	9,639	10,356	4,763	4,470	9,233
Flood and Coastal Storm Damage Reduction	674	697	749	668	0	668
Environment	261	270	291	240	19	259
Hydropower	0	0	0	0	0	0
Recreation	1,902	1,967	2,113	1,381	503	1,884
Water Supply	0	0	0	0	0	0
MVD Division Total in Region	12,156	12,573	13,509	7,052	4,992	12,044
South Pacific Division (SPD) (Dollars in Thousands)						
Business Program	FY 2004 Actual	FY 2005 Actual	FY 2006 Estimate	FY 2007 Projections		
				Operation	Maintenance and Rehabilitation	Total
Commercial Navigation	0	0	0	0	0	0
Flood and Coastal Storm Damage Reduction	4,932	4,921	6,806	2,310	1,273	3,583
Environment	567	566	783	412	0	412
Hydropower	0	0	0	0	0	0
Recreation	357	356	492	194	65	259
Water Supply	0	0	0	0	0	0
SPD Division Total in Region	5,856	5,842	8,081	2,916	1,338	4,254

JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, FY 2007

Region 11 Arkansas-White-Red - Continued

Southwestern Division (SWD) (Dollars in Thousands)						
Business Program	FY 2004 Actual	FY 2005 Actual	FY 2006 Estimate	FY 2007 Projections		
				Operation	Maintenance and Rehabilitation	Total
Commercial Navigation	31,888	33,204	33,193	20,483	14,074	34,557
Flood and Coastal Storm Damage Reduction	42,165	43,905	43,891	27,517	18,177	45,694
Environment	8,199	8,537	8,534	7,677	1,208	8,885
Hydropower	23,105	24,059	24,051	18,398	6,641	25,039
Recreation	42,370	44,118	44,104	37,507	8,409	45,916
Water Supply	503	524	523	545	0	545
SWD Division Total in Region	148,230	154,346	154,297	112,127	48,509	160,636
Region 11 Total	166,242	172,761	175,887	122,095	54,839	176,934

JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, FY 2007

Region 12 Texas-Gulf - The drainage that discharges into the Gulf of Mexico from and including Sabine Pass to the Rio Grande Basin boundary. Includes parts of Louisiana, New Mexico, and Texas

Projects funded in the FY 2007 budget for operation, maintenance and rehabilitation are as follows:

Texas

Estelline Springs Experimental Project, TX
Project Condition Surveys, La
Scheduling Reservoir Operations, TX
Texas Water Allocation Assessment, TX
Channel To Port Bolivar, TX
Inspection Of Completed Works, TX
Project Condition Surveys, TX
Joe Pool Lake, TX
Aquilla Lake, TX
Texas City Ship Channel, TX
Ray Roberts Lake, TX
Hords Creek Lake, TX
Bardwell Lake, TX
Belton Lake, TX

Benbrook Lake, TX
Brazos Island Harbor, TX
Buffalo Bayou And Tributaries, TX
Canyon Lake, TX
Corpus Christi Ship Channel, TX
Freeport Harbor, TX
Galveston Harbor And Channel, TX
GIWW, Channel To Victoria, TX
Granger Dam And Lake, TX
Grapevine Lake, TX
Gulf Intracoastal Waterway, TX
Houston Ship Channel, TX
Lavon Lake, TX
Lewisville Dam, TX

Matagorda Ship Channel, TX
Navarro Mills Lake, TX
North San Gabriel Dam And Lake
Georgetown, TX
O C Fisher Dam And Lake, TX
Proctor Lake, TX
Sabine - Neches Waterway, TX
Sam Rayburn Dam And Reservoir, TX
Somerville Lake, TX
Stillhouse Hollow Dam, TX
Town Bluff Dam, B A Steinhagen Lake, TX
Waco Lake, TX
Wallisville Lake, TX
Whitney Lake, TX

1/ Projects funded in the FY 2007 budget for minimal operation and maintenance.

In addition, funding may be reallocated to the following projects that were included in the FY 2006 budget, where necessary to complete a useful increment of work for which FY 2006 funding proves to be insufficient.

Texas

Bayport Ship Channel, TX

JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, FY 2007

Region 12 Texas-Gulf -Continued

The FY 2007 budget includes funding for operation, maintenance, and rehabilitation in Region 12 by business line as follows:

Mississippi River Division (MVD) (Dollars in Thousands)						
Business Program	FY 2004 Actual	FY 2005 Actual	FY 2006 Estimate	FY 2007 Projections		
				Operation	Maintenance and Rehabilitation	Total
Commercial Navigation	0	0	0	60	0	60
Flood and Coastal Storm Damage Reduction	0	0	0	0	0	0
Environment	0	0	0	0	0	0
Hydropower	0	0	0	0	0	0
Recreation	0	0	0	0	0	0
Water Supply	0	0	0	0	0	0
MVD Division Total in Region	0	0	0	60	0	60
Southwestern Division (SWD) (Dollars in Thousands)						
Business Program	FY 2004 Actual	FY 2005 Actual	FY 2006 Estimate	FY 2007 Projections		
				Operation	Maintenance and Rehabilitation	Total
Commercial Navigation	72,057	68,575	129,387	4,025	77,989	82,014
Flood and Coastal Storm Damage Reduction	29,852	28,409	53,603	19,052	14,925	33,977
Environment	3,828	3,643	6,874	4,325	32	4,357
Hydropower	2,557	2,433	4,591	1,745	1,165	2910
Recreation	20,609	19,613	37,006	16,169	7,288	23,457
Water Supply	568	541	1,021	647	0	647
SWD Division Total in Region	129,471	123,215	232,481	45,963	101,399	147,362
Region 12 Total	129,471	123,215	232,481	46,023	101,399	147,422

JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, FY 2007

Region 13 Rio Grande - The drainage within the United states of: (a) the Rio Grande Basin, and (b) the San Luis Valley, North Plains, Plains of San Agustin, Mimbres River, Estancia, Jornada Del Muerto, Tularosa Valley, Salt Basin, and Other Closed Basins. Includes parts of Colorado, New Mexico, and Texas

Projects funded in the FY 2007 budget for operation, maintenance and rehabilitation are as follows:

New Mexico	Texas
Abiquiu Dam, NM	Inspection Of Completed Works, TX
Cochiti Lake, NM	
Galisteo Dam, NM	
Inspection Of Completed Works, NM	
Jemez Canyon Dam, NM	
Santa Rosa Dam And Lake, NM	
Scheduling Reservoir Operations, NM	
Two Rivers Dam, NM	

The FY 2007 budget includes funding for operation, maintenance, and rehabilitation in Region 13 by business line as follows:

South Pacific Division (SPD) (Dollars in Thousands)						
Business Program	FY 2004 Actual	FY 2005 Actual	FY 2006 Estimate	FY 2007 Projections		
				Operation	Maintenance and Rehabilitation	Total
Commercial Navigation	0	0	0	0	0	0
Flood and Coastal Storm Damage Reduction	15,862	14,147	16,930	5,680	2,832	8,512
Environment	1,114	994	1,189	593	5	598
Hydropower	0	0	0	0	0	0
Recreation	2,048	1,827	2,186	595	504	1,099
Water Supply	0	0	0	0	0	0
SPD Division Total in Region	19,024	16,968	20,305	6,868	3,341	10,209
Region 13 Total	19,024	16,968	20,305	6,868	3,341	10,209

JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, FY 2007

Region 14 Upper Colorado - The drainage of: (a) the Colorado River Basin above the Lee Ferry compact point which is one mile below the mouth of the Paria River; and (b) the Great Divide closed basin. Includes parts of Arizona, Colorado, New Mexico, Utah, and Wyoming.

Project funded in the FY 2007 budget for operation, maintenance and rehabilitation is as follows:

Colorado

Inspection Of Completed Works, CO
Scheduling Reservoir Operations, CO

The FY 2007 budget includes funding for operation, maintenance, and rehabilitation in Region 14 by business line as follows:

South Pacific Division (SPD) (Dollars in Thousands)						
Business Program	FY 2004 Actual	FY 2005 Actual	FY 2006 Estimate	FY 2007 Projections		
				Operation	Maintenance and Rehabilitation	Total
Commercial Navigation	0	0	0	0	0	0
Flood and Coastal Storm Damage Reduction	247	336	605	664	58	722
Environment	0	0	0	0	0	0
Hydropower	0	0	0	0	0	0
Recreation	0	0	0	0	0	0
Water Supply	0	0	0	0	0	0
SPD Division Total in Region	247	336	605	664	58	722
Region 14 Total	247	336	605	664	58	722

JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, FY 2007

Region 15 Lower Colorado - The drainage within the United States of: (a) the Colorado River Basin below the Lee Ferry compact point which is one mile below the mouth of the Paria River; (b) streams that originate within the United States and ultimately discharge into the Gulf of California; and (c) the Animas Valley, Willcox Playa, and other smaller closed basins. Includes parts of Arizona, California, Nevada, New Mexico, and Utah.

Projects funded in the FY 2007 budget for operation, maintenance and rehabilitation are as follows:

Arizona	Painted Rock Dam, AZ	Nevada
Alamo Lake, AZ	Scheduling Reservoir Operations, AZ	Pine And Mathews Canyons Lakes, NV
Inspection Of Completed Works, AZ	Whitlow Ranch Dam, AZ	

The FY 2007 budget includes funding for operation, maintenance, and rehabilitation in Region 15 by business line as follows:

South Pacific Division (SPD) (Dollars in Thousands)						
Business Program	FY 2004 Actual	FY 2005 Actual	FY 2006 Estimate	FY 2007 Projections		
				Operation	Maintenance and Rehabilitation	Total
Commercial Navigation	0	0	0	0	0	0
Flood and Coastal Storm Damage Reduction	3,117	2,565	3,097	2,632	485	3,117
Environment	168	138	167	168	0	168
Hydropower	0	0	0	0	0	0
Recreation	42	35	42	42	0	42
Water Supply	0	0	0	0	0	0
SPD Division Total in Region	3,327	2,738	3,306	2,842	485	3,327
Region 15 Total	3,327	2,738	3,306	2,842	485	3,327

JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, FY 2007

Region 16 Great Basin - The drainage of the Great Basin that discharges into the states of Utah and Nevada. Includes Parts of California, Idaho, Nevada, Oregon, Utah, and Wyoming.

Projects funded in the FY 2007 budget for operation, maintenance and rehabilitation are as follows:

Nevada
Inspection Of Completed Works, NV

Utah
Inspection Of Completed Works, UT
Scheduling Reservoir Operations, UT

The FY 2007 budget includes funding for operation, maintenance, and rehabilitation in Region 16 by business line as follows:

South Pacific Division (SPD) (Dollars in Thousands)						
Business Program	FY 2004 Actual	FY 2005 Actual	FY 2006 Estimate	FY 2007 Projections		
				Operation	Maintenance and Rehabilitation	Total
Commercial Navigation	0	0	0	0	0	0
Flood and Coastal Storm Damage Reduction	519	547	650	703	58	761
Environment	0	0	0	0	0	0
Hydropower	0	0	0	0	0	0
Recreation	0	0	0	0	0	0
Water Supply	0	0	0	0	0	0
SPD Division Total in Region	519	547	650	703	58	761
Region 16 Total	519	547	650	703	58	761

JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, FY 2007

Region 17 Pacific Northwest - The drainage within the United States that ultimately discharges into: (a) the Straits of Georgia and of Juan De Fuca, and (b) the Pacific Ocean within the states of Oregon and Washington; and that part of the Great Basin whose discharge is into the state of Oregon. Includes all of Washington and parts of California, Idaho, Montana, Nevada, Oregon, Utah, and Wyoming.

Projects funded in the FY 2007 budget for operation, maintenance and rehabilitation are as follows:

Idaho	Hills Creek Lake, OR	Grays Harbor And Chehalis River, WA
Albeni Falls Dam, ID	Inspection Of Completed Works, OR	Howard Hanson Dam, WA
Dworshak Dam And Reservoir, ID	Lookout Point Lake, OR	Ice Harbor Lock And Dam, WA
Inspection Of Completed Works, ID	Lost Creek Lake, OR	Inspection Of Completed Works, WA
Lucky Peak Lake, ID	Port Orford, OR	John Day Lock And Dam, OR & WA
Scheduling Reservoir Operations, ID	Project Condition Surveys, OR	Lake Washington Ship Canal, WA
Montana	Rogue River At Gold Beach, OR	Little Goose Lock And Dam, WA
Libby Dam, Lake Kootenai, MT	Scheduling Reservoir Operations, OR	Lower Granite Lock And Dam, WA
Oregon	Siuslaw River, OR	Lower Monumental Lock And Dam, WA
Applegate Lake, OR	Skipanon Channel, OR	Mcnary Lock And Dam, OR & WA
Blue River Lake, OR	Surveillance Of Northern Boundary Wtrs, OR	Mill Creek Lake, WA
Chetco River, OR	The Dalles Lock And Dam, WA & OR	Mt St Helens Sediment Control, WA
Columbia & Lwr Willamette R Blw	Tillamook Bay And Bar, OR 1/	Mud Mountain Dam, WA
Vancouver, WA & Portland, OR	Umpqua River, OR	Neah Bay, WA 1/
Columbia R. At Baker Bay, WA & OR 1/	Willamette River At Willamette Falls, OR 1/	Olympia Harbor, WA
Columbia River Between Vancouver, WA	Willamette River Bank Protection, OR	Project Condition Surveys, WA
And The Dalles, OR	Willow Creek Lake, OR	Puget Sound And Tributary Waters, WA
Coos Bay, OR	Yaquina Bay And Harbor, OR	Quillayute River, WA
Coquille River, OR 1/	Yaquina River, OR 1/	Scheduling Reservoir Operations, WA
Cottage Grove Lake, OR	Washington	Seattle Harbor, WA
Cougar Lake, OR	Bonneville Lock And Dam, OR & WA	Stillaguamish River, WA
Depoe Bay, OR 1/	Chief Joseph Dam, WA	Surveillance Of Northern Boundary Waters, WA
Detroit Lake, OR	Columbia River At The Mouth, OR & WA	Swinomish Channel, WA 1/
Dorena Lake, OR	Columbia River Btwn Chinook And Sand	Tacoma, Puyallup River, WA
Fall Creek Lake, OR	Island, WA 1/	Willapa River And Harbor, WA 1/
Fern Ridge Lake, OR	Ediz Hook, WA	Wyoming
Green Peter - Foster Lakes, OR	Everett Harbor And Snohomish River, WA	Jackson Hole Levees, WY

1/ Projects funded in the FY 2007 budget for minimal operation and maintenance.

JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, FY 2007

Region 17 Pacific Northwest - Continued

In addition, funding may be reallocated to the following project that was included in the FY 2006 budget, where necessary to complete a useful increment of work for which FY 2006 funding proves to be insufficient.

Washington

Lake Crockett (Keystone Harbor), WA

The FY 2007 budget includes funding for operation, maintenance, and rehabilitation in Region 17 by business line as follows:

Northwestern Division (NWD) (Dollars in Thousands)						
Business Program	FY 2004 Actual	FY 2005 Actual	FY 2006 Estimate	FY 2007 Projections		
				Operation	Maintenance and Rehabilitation	Total
Commercial Navigation	77,279	90,445	85,009	20,805	78,555	99,360
Flood and Coastal Storm Damage Reduction	27,821	32,561	30,603	31,011	4,759	35,770
Environment	10,634	12,446	11,698	10,210	3,463	13,673
Hydropower	68,033	79,625	74,839	0	87,473	87,473
Recreation	12,181	14,256	13,399	11,795	3,866	15,661
Water Supply	121	142	133	156	0	156
NWD Division Total in Region	196,069	229,475	215,681	73,977	178,116	252,093
Region 17 Total	196,069	229,475	215,681	73,977	178,116	252,093

JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, FY 2007

Region 18 California - (a) the drainage within the United States that ultimately discharges into the Pacific Ocean within the state of California; and (b) those parts of the Great Basin (or other closed basins) that discharge into the state of California. Includes parts of California, Nevada, and Oregon.

Projects funded in the FY 2007 budget for operation, maintenance and rehabilitation are as follows:

All in California

Black Butte Lake, CA	Mojave River Dam, CA	San Francisco Bay, Delta Model Structure, CA
Buchanan Dam, Hv Eastman Lake, CA	Morro Bay Harbor, CA	San Francisco Harbor And Bay, CA (Drift Removal)
Channel Islands Harbor, CA	New Hogan Lake, CA	San Francisco Harbor, CA
Coyote Valley Dam, Lake Mendocino, CA	New Melones Lake, Downstream Channel, CA	San Joaquin River, CA
Dry Creek (Warm Springs) Lake And Channel, CA	Oakland Harbor, CA	San Pablo Bay And Mare Island Strait, CA
Farmington Dam, CA	Oceanside Harbor, CA	Santa Ana River Basin, CA
Hidden Dam, Hensley Lake, CA	Pine Flat Lake, CA	Santa Barbara Harbor, CA
Humboldt Harbor And Bay, CA	Project Condition Surveys, CA	Scheduling Reservoir Operations, CA
Inspection Of Completed Works, CA	Richmond Harbor, CA	Success Lake, CA
Isabella Lake, CA	Sacramento River (30 Foot Project), CA	Suisun Bay Channel, CA
Los Angeles County Drainage Area, CA	Sacramento River And Tributaries (Debris Control), CA	Surfside - Sunset - Newport Beach, CA
Marina Del Rey, CA	Sacramento R. Shallow Draft Chan., CA 1/	Terminus Dam, Lake Kaweah, CA
Martis Creek Lake, Nv & Ca		Ventura Harbor, CA
Merced County Streams, CA		Yuba River, CA 1/

1/ Projects funded in the FY 2007 budget for minimal operation and maintenance.

In addition, funding may be reallocated to the following projects that were included in the FY 2006 budget, where necessary to complete a useful increment of work for which FY 2006 funding proves to be insufficient.

California

Noyo River & Harbor, CA
Redwood City Harbor, CA

JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, FY 2007

Region 18 California - Continued

The FY 2007 budget includes funding for operation, maintenance, and rehabilitation in Region 18 by business line as follows:

South Pacific Division (SPD) (Dollars in Thousands)						
Business Program	FY 2004 Actual	FY 2005 Actual	FY 2006 Estimate	FY 2007 Projections		
				Operation	Maintenance and Rehabilitation	Total
Commercial Navigation	42,653	43,141	46,737	4,831	45,222	50,053
Flood and Coastal Storm Damage Reduction	24,086	24,362	26,393	22,015	6,250	28,265
Environment	3,611	3,652	3,956	3,483	754	4,237
Hydropower	0	0	0	0	0	0
Recreation	13,295	13,447	14,569	13,258	2,344	15,602
Water Supply	64	65	70	35	40	75
SPD Division Total in Region	83,710	84,666	91,725	43,622	54,610	98,232
Region 18 Total	83,710	84,666	91,725	43,622	54,610	98,232

JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, FY 2007

Region 19 Alaska - The drainage within the state of Alaska. Includes all of Alaska.

Projects funded in the FY 2007 budget for operation, maintenance and rehabilitation are as follows:

All in Alaska

Anchorage Harbor, AK
Chena River Lakes, AK
Dillingham Harbor, AK

Homer Harbor, AK
Inspection Of Completed Works, AK
Ketchikan Harbor, Bar Point, AK

Ninilchik Harbor, AK
Nome Harbor, AK
Project Condition Surveys, AK

1/ Projects funded in the FY 2007 budget for minimal operation and maintenance.

The FY 2007 budget includes funding for operation, maintenance, and rehabilitation in Region 19 by business line as follows:

Pacific Ocean Division (NAD) (Dollars in Thousands)						
Business Program	FY 2004 Actual	FY 2005 Actual	FY 2006 Estimate	FY 2007 Projections		
				Operation	Maintenance and Rehabilitation	Total
Commercial Navigation	16,085	13,836	17,602	474	19,808	20,282
Flood and Coastal Storm Damage Reduction	1,524	1,311	1,668	933	989	1,922
Environment	0	0	0	0	0	0
Hydropower	0	0	0	0	0	0
Recreation	0	0	0	0	0	0
Water Supply	0	0	0	0	0	0
POD Division Total in Region	17,609	15,147	19,270	1,407	20,797	22,204
Region 19 Total	17,609	15,147	19,270	1,407	20,797	22,204

JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, FY 2007

Region 20 Hawaii - The drainage within the state of Hawaii. Includes all of Hawaii and Pacific Commonwealths.

Projects funded in the FY 2007 budget for operation, maintenance and rehabilitation are as follows:

Hawaii	Project Condition Surveys, HI
Barbers Point Harbor, HI	Northern Mariana Islands
Inspection Of Completed Works, HI	Rota Harbor, CNMI

1/ Projects funded in the FY 2007 budget for minimal operation and maintenance.

In addition, funding may be reallocated to the following projects that were included in the FY 2006 budget, where necessary to complete a useful increment of work for which FY 2006 funding proves to be insufficient.

American Samoa
Ofu Harbor, AS
Tau Harbor, AS

The FY 2007 budget includes funding for operation, maintenance, and rehabilitation in Region 20 by business line as follows:

Pacific Ocean Division (POD) (Dollars in Thousands)						
Business Program	FY 2004 Actual	FY 2005 Actual	FY 2006 Estimate	FY 2007 Projections		
				Operation	Maintenance and Rehabilitation	Total
Commercial Navigation	1,003	2,269	2,426	440	1,105	1,545
Flood and Coastal Storm Damage Reduction	133	301	322	205	0	205
Environment	0	0	0	0	0	0
Hydropower	0	0	0	0	0	0
Recreation	159	360	385	220	25	245
Water Supply	0	0	0	0	0	0
POD Division Total in Region	1,295	2,930	3,132	865	1,130	1,995
Region 20 Total	1,295	2,930	3,132	865	1,130	1,995

JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, FY 2007

Region 21 Caribbean - The drainage within: (a) the Commonwealth of Puerto Rico; (b) the Virgin Islands of the United States; and (c) other United States Caribbean outlying areas. Includes land areas over which the United States has some degree of interest, jurisdiction, or sovereignty.

The following project is funded in the FY 2007 budget for operation, maintenance and rehabilitation:

Puerto Rico
San Juan Harbor, PR

1/ Projects funded in the FY 2007 budget for minimal operation and maintenance.

The FY 2007 budget includes funding for operation, maintenance, and rehabilitation in Region 21 by business line as follows:

South Atlantic Division (SAD) (Dollars in Thousands)						
Business Program	FY 2004 Actual	FY 2005 Actual	FY 2006 Estimate	FY 2007 Projections		
				Operation	Maintenance and Rehabilitation	Total
Commercial Navigation	31	510	1,606	0	4,000	4,000
Flood and Coastal Storm Damage Reduction	0	0	0	0	0	0
Environment	0	0	0	0	0	0
Hydropower	0	0	0	0	0	0
Recreation	0	0	0	0	0	0
Water Supply	0	0	0	0	0	0
SAD Division Total in Region	31	510	1,606	0	4,000	4,000
Region 21 Total	31	510	1,606	0	4,000	4,000

JUSTIFICATION OF ESTIMATE
APPROPRIATION TITLE: Operation and Maintenance, FY 2007

O&M SUMMARY BY REGION (Dollars in Thousands)						
Region	FY 2004 Actual	FY 2005 Actual	FY 2006 Estimate	FY 2007 Projections		
				Operation	Maintenance and Rehabilitation	Total
Region 01 New England	66,803	56,223	43,094	29,533	13,170	42,703
Region 02 Mid-Atlantic	141,931	138,710	137,862	30,204	116,496	146,700
Region 03 South Atlantic-Gulf	326,200	410,054	341,963	104,850	213,593	318,443
Region 04 Great Lakes	104,343	82,001	72,002	23,598	73,062	96,660
Region 05 Ohio	228,089	254,435	229,572	161,910	87,421	249,331
Region 06 Tennessee	15,912	16,463	21,600	5,815	14,886	20,701
Region 07 Upper Mississippi	177,915	203,153	202,396	107,419	140,548	247,967
Region 08 Lower Mississippi	174,338	383,818	358,024	44,348	96,265	140,613
Region 09 Souris-Red-Rainy	2,949	3,020	2,566	2,927	72	2,999
Region 10 Missouri	116,571	113,234	100,537	76,337	103,863	180,200
Region 11 Arkansas-White-Red	166,242	172,761	175,887	122,095	54,839	176,934
Region 12 Texas-Gulf	129,471	123,215	232,481	46,023	101,399	147,422
Region 13 Rio Grande	19,024	16,968	20,305	6,868	3,341	10,209
Region 14 Upper Colorado	247	336	605	664	58	722
Region 15 Lower Colorado	3,327	2,738	3,306	2,842	485	3,327
Region 16 Great Basin	519	547	650	703	58	761
Region 17 Pacific Northwest	196,069	229,475	215,681	73,977	178,116	252,093
Region 18 California	83,710	84,666	91,725	43,622	54,610	98,232
Region 19 Alaska	17,609	15,147	19,270	1,407	20,797	22,204
Region 20 Hawaii	1,295	2,930	3,132	865	1,130	1,995
Region 21 Caribbean	31	510	1,606	0	4,000	4,000
Grand Total	1,972,595	2,310,404	2,274,264	886,007	1,278,209	2,164,216

APPROPRIATION TITLE: Flood Control, Mississippi River and Tributaries (MR&T) (Maintenance) FY 2007

The Flood Control, Mississippi River and Tributaries (MR&T) appropriation funds planning, construction, and operation and maintenance activities associated with projects to reduce flood damage in the lower Mississippi River alluvial valley below Cape Girardeau, Missouri. The entire MR&T area is included in Region 8 Lower Mississippi - The drainage of: (a) the Mississippi River below its confluence with the Ohio River, excluding the Arkansas, Red, and White River Basins above the points of highest backwater effect of the Mississippi River in those basins; and (b) coastal streams that ultimately discharge into the Gulf of Mexico from the Pearl River Basin boundary to the Sabine River and Sabine Lake drainage boundary. Includes parts of Arkansas, Kentucky Louisiana, Mississippi, Missouri, and Tennessee. Projects funded in the FY 2007 budget for operation, maintenance, and rehabilitation are as follows:

Arkansas

Helena Harbor, Phillips County, AR
Inspection Of Completed Works, AR
Lower Arkansas River, North Bank, AR
Lower Arkansas River, South Bank, AR
White River Backwater, AR

Illinois

Inspection Of Completed Works, IL

Kentucky

Inspection Of Completed Works, KY

Louisiana

Atchafalaya Basin, Floodway System, LA
Atchafalaya Basin, LA
Baton Rouge Harbor, Devil Swamp, LA
Bayou Cocodrie And Tributaries, LA
Bonnet Carre, LA
Inspection Of Completed Works, LA

Lower Red River, South Bank Levees, LA
Mississippi Delta Region, LA
Old River, LA
Tensas Basin, Boeuf And Tensas Rivers, AR
& LA
Tensas Basin, Red River Backwater, LA

Missouri

Inspection Of Completed Works, MO
St Francis Basin, AR & MO
Wappapello Lake, MO

Mississippi

Greenville Harbor, MS
Inspection Of Completed Works, MS
Vicksburg Harbor, MS
Yazoo Basin, ARkabutla Lake, MS
Yazoo Basin, Big Sunflower River, MS
Yazoo Basin, Enid Lake, MS

Yazoo Basin, Greenwood, MS
Yazoo Basin, Grenada Lake, MS
Yazoo Basin, Main Stem, MS
Yazoo Basin, Sardis Lake, MS
Yazoo Basin, Tributaries, MS
Yazoo Basin, Will M Whittington Aux Chan, MS
Yazoo Basin, Yazoo Backwater Area, MS
Yazoo Basin, Yazoo City, MS

Tennessee

Inspection Of Completed Works, TN
Memphis Harbor, Mckellar Lake, TN

Mississippi River Levees
Revetments And Dikes
Dredging

APPROPRIATION TITLE: Flood Control, Mississippi River and Tributaries (MR&T) (Maintenance) FY 2007

The FY 2007 budget includes funding for operation, maintenance, and rehabilitation in MR&T (Region 8) by business line as follows:

Flood Control, Mississippi River and Tributaries (MR&T) (Maintenance) (Dollars in Thousands)						
Business Program	FY 2004 Actual	FY 2005 Actual	FY 2006 Estimate	FY 2007 Projections		
				Operation	Maintenance and Rehabilitation	Total
Commercial Navigation	23,941	25,259	33,172	9,028	13,685	22,713
Flood and Coastal Storm Damage Reduction	108,793	114,782	150,745	38,695	64,519	103,214
Environment	5,239	5,527	7,259	4,508	462	4,970
Hydropower	0	0	0	0	0	0
Recreation	15,515	16,369	21,497	13,820	899	14,719
Water Supply	0	0	0	0	0	0
MR&T Total All in Region 8	153,487	161,936	212,673	66,051	79,565	145,616

OTHER BUSINESS PROGRAMS

Other Business Programs

Table of Contents (Continued)

Other Business Programs

Regulatory

Program Assessment- Corps of Engineers Regulatory Program1

Regulatory Program3

Recreation6

Emergency Management8

Program Assessment- Corps of Engineers Emergency Management9

Emergency Management11

National Emergency Preparedness Program (NEEP)13

Water Supply16

National Portfolio Assessment17

Operations and Maintenance Summary19

Expenses20

Revolving Fund.....25

Investigations41

Planning Assistance to States.....42

Coordination with Other Federal Agencies, State, and Non-Federal Interest43

Collection and Study of Basic Data49

Research and Development.....74

Construction92

Inland Waterway Users Board93

Dam Safety and Seepage/Stability Correction Program94

Estuary Restoration Program95

Aquatic Plant Control (APC) Program96

Employees Compensation (Payments to the Department of Labor).....97

Construction Suspension Fund98

Operation and Maintenance99

Aquatic Nuisance Control Research101

Other Business Programs Table of Contents (Continued)

Asset Management/Facilities and Equip Maintenance (FEM)	103
Beneficial Uses of Dredged Material.....	104
Independent Assessment for Stewardship Program.....	105
Coastal Inlets Research Program	106
Cultural Resources (NAGPRA/Curation)	109
Dredge Wheeler Ready Reserve	111
Dredged Material Disposal Facilities Program.....	112
Dredging Data and Lock Performance Monitoring System	113
Dredging Operations and Environmental Research (DOER) Program	115
Dredging Operations Technical Support (DOTS) Program.....	117
Earthquake Hazards Reduction Program	119
Facility Protection.....	121
Great Lakes Tributary Model.....	122
Inland Waterway Navigation Charts.....	123
Monitoring of Completed Navigation Projects.....	124
National Coastal Mapping Program.....	126
National Dam Safety Program – Portfolio Risk Assessments	128
National Emergency Preparedness Program (NEPP)	130
Navigation Mitigation Projects (Section 111, PL 90-483, as amended)	133
Performance Based Budgeting Support Program	134
Portfolio assessment for Water Storage Reallocation.....	136
Program Development Technical Support (ABS-P2)	137
Protection of Navigation (Four Items)	138
Recreation Management Support Program (RMSP)	141
Regional Sediment Management Program (RSM)	143
Reliability Models Program For Major Rehabilitation.....	146
Stewardship Support Program	145
Water Operations Technical Support (WOTS)	148

Other Business Programs Table of Contents (Continued)

Centrally Funded Activities	149
Automation	152

REGULATORY



PROGRAM

[View Similar Programs](#)

RATING

[What This Rating Means](#)

IMPROVEMENT PLAN

[About Improvement Plans](#)

PROGRAM ASSESSMENT

Corps of Engineers: Regulatory Program

The Corps of Engineers is responsible for protecting the nation's wetlands. It is required to do this in a way that supports a prosperous and growing economy. It issues permits to land developers, road builders and others affecting wetlands. It requires them to avoid, minimize and mitigate wetland damage.

PERFORMING

Moderately Effective

- **The Corps needs to improve the way it checks to be sure that recipients of Corps permits comply with the terms of their permits, especially with respect to offsetting or mitigating any damage they cause to wetlands.** The Government Accountability Office studied this compliance issue and agrees it is a problem.
- **The program should improve the extent to which its regulations are consistent nationwide.** The Government Accountability Office recently conducted two surveys of Corps procedures in different parts of the country and found inconsistencies which need to be eliminated.
- **The Corps needs to do more watershed planning in advance of development and less project-by-project planning.** The Corps of Engineers Civil Works strategic plan calls on the agency to make this change. There is widespread agreement that a broadly-focused watershed approach is more likely to improve the environment and the economy than a narrowly-based site-by-site approach.

We are taking the following actions to improve the performance of the program:

- Publishing a mitigation rule in 2006. We are also installing a new database to

improve our ability to track the extent to which permit recipients comply with the terms of their permits.

- Completing analysis of different regulatory practices and standards nationwide. We will identify inconsistencies and issue rules to reduce or eliminate them.
- Increasing our focus on watershed planning. We will prepare a plan by Fall 2006 with quantitative targets for watershed planning. Once approved, we will implement the plan.

LEARN MORE

- **Details and Current Status of this program assessment.**
- How all Federal programs are assessed.
- Learn more about Corps of Engineers: Regulatory Program.

APPROPRIATION TITLE: Regulatory Program, FY 2007

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 2007	\$173,000,000
Budget Request for Fiscal Year 2006	\$160,000,000
Proposed Increase in FY 2007 over FY 2006	\$13,000,000

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; most of the authority for administering the program has been delegated to District and Division Commanders. Scrutiny on the Corps' regulatory program has increased as development pressures mount and national public awareness of the aquatic environment, including wetlands, and the involvement of state and Federal resource agencies continue to grow. Sensitivity to wetlands has resulted in greater direct input from the public and environmental interest groups, leading to greater scrutiny and controversy in the review of permit proposals. While this tends to add time to the permit review process, it insures more balance in the overall review. Interagency cooperation in the management and protection of the nation's wetlands 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 improving its ability to ensure protection of the aquatic environment. The Corps works with state, tribal, and local governments to develop mechanisms that give them greater responsibility for aquatic resources including wetland regulation. This is achieved primarily through programmatic and regional general permits, designed to reduce Federal regulation of activities with only minimal adverse impacts on the aquatic environment. Strategies also include joint federal-state permit applications and processing procedures as well as work-sharing agreements to eliminate duplication of effort with state and local governments. State Programmatic General Permits are becoming an increasingly effective mechanism for giving states a greater role in administering minor permit actions over large areas, thus freeing up Corps resources for 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 chosen to assume this aspect of the program. The Corps is working to improve inter-agency coordination in efforts to share resources and spatial data. Since 2002, the Corps has cooperated with the other agencies in the National Wetlands Mitigation Action Plan, designed to improve all aspects of mitigation managed by the program.

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.

APPROPRIATION TITLE: Regulatory Program, FY 2007 (continued)

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 permit must also be in compliance with other federal laws, including the Endangered Species Act and National Historic Preservation Act.

ACCOMPLISHMENTS: In FY 05, the Corps authorized more than 90,000 activities in writing, a 2,000 increase over FY 04, and completed more than 100,000 jurisdiction determinations. Of the approximately 90,000 permits, more than 90 percent were authorized by regional and nationwide general permits and the remaining by the 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 intensively evaluated as individual permits. Although the evaluation process for an individual permit is typically greater than that for a general permit, most regional and nationwide authorizations now involve substantive evaluation and determination of necessary mitigation. The Corps has developed a draft of the revised Nationwide permits for publication in FY 2006 and re-issuance in FY 2007.

The Corps has been a driving force in the inter-agency group working to improve the success of compensatory mitigation. Following announcement in December of 2002 of a multi-agency Mitigation Action Plan, the Corps and other Federal wetland agencies began work to implement a national wetlands mitigation plan to improve the ecological performance and results of compensatory mitigation under the Clean Water Act and related programs. This plan emphasizes watershed approaches and use of wetlands functions and values in determining impacts and mitigation. The plan is a five-year comprehensive effort to improve compensatory mitigation. The Mitigation Action Plan was held in abeyance in FY 05 due to work on the new Mitigation Rule. The rule became a joint Corps-EPA rule in FY 05, specifically to implement a watershed approach to mitigation and decrease the time to reach a decision on proposed mitigation banks. The Mitigation Action Plan will continue but with a redirected and re-vitalized direction to develop needed guidance and policy related to the watershed approach to permitting and mitigation.

The Corps continues to protect the nation's aquatic environment, while working to provide fair and equitable decisions in a reasonable period of time. Because of a nearly 50-percent increase in the total number of written permit authorizations over the last ten years as well as increasing program review requirements and legal challenges, the Corps has not been able to maintain its evaluation time for the more complex permit actions. In FY 05, 86% of all actions were authorized in less than 60 days, maintaining the general permit performance from FY 2004. Performance in evaluating the more complex project requiring standard permits has continued to decline. With nationwide and regional general permits authorizing most actions, only the most difficult permits are left to be handled through standard permits. In FY 05, 50% of standard individual permits were completed within 120 days, compared to 53% in FY 04 and 56% in FY 03. Standard permits represent only approximately 8% of all permits in numbers but utilize almost a third of all Corps man-days expended on permit actions. The environmental review of all standard permits continues to be extensive; proposed projects that are large and have significant impacts on the aquatic environment have a higher probability of involving endangered species, historic resources, and requiring mitigation that make these applications extremely difficult and time-consuming. The impact of these problems increases each year as the less environmentally sensitive areas are developed and developers are forced to consider building in or near higher value aquatic areas, including wetlands. Because of these reasons, 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.

Uncertainty about the program's jurisdiction following a 2001 Supreme Court decision on non-navigable, intrastate, isolated waters has not been resolved. The General Accounting Office completed a second study of this issue. The Corps has completed a comprehensive survey of the jurisdictional practices across the country; the results should be published in FY 2006.

APPROPRIATION TITLE: Regulatory Program, FY 2007 (continued)

FISCAL YEAR 2007: The request of \$173 million is \$13 million over the amount appropriated for FY 06. This funding will allow continuation of efforts to be more responsive to the regulated public while continuing to ensure the protection of the aquatic environment as required by law. The funding amount allows progress toward the goal of reducing time to evaluate standard permits and make decisions on Nationwide and general Permits. Additional funds will be allocated for inspections of permitted activities to improve compliance of permitted projects and to insure mitigation oversight; the Corps has been criticized by the National Academy of Sciences and others for inadequate compliance. The change to improve the management of compliance is part of an overall initiative to demonstrate program improvements through new performance standards developed in cooperation with the Office of Management and Budget using the Program Assessment Rating Tool. Enforcement funding has been separated from compliance funding and will remain at current levels.

In FY 07, The Corps and the other federal agencies will to implement the mitigation rule and develop accompanying guidance on the evaluation of impacts and mitigation from a holistic watershed approach. Study efforts will continue to develop watershed approaches that can consider impacts in entire aquatic ecosystems to help expedite permit actions and manage aquatic resources in sensitive areas. Where these watershed studies and evaluations of the impacts of future permits in an aquatic system are undertaken, permit evaluation workload can be greatly reduced. The watershed plan is designed to allow the agency to work cooperatively with other federal agencies, state and local governments, regional and local nongovernmental organizations, private property owners and other stakeholders to ensure sound use of watershed aquatic resources. As part of this effort, the Regulatory program will actively seek state partners to develop State Programmatic General Permits that will utilize these watershed data and streamline the permit process.

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 2007, approximately \$500,000 would be allocated to ERDC for its direct technical assistance with complex and sensitive permit cases. ERDC is also producing a series of regional wetland delineation manuals that will improve decision-making and consistency in wetland delineations by taking into account regional variations in wetlands. In addition, a similar funding amount may be allocated to the Institute for Water Resources to address special program management issues such as studies of mitigation banking, improvement of the ORM data system to track program workload and wetland acreage, and assessment of impacts due to program changes. With the proposed funding for FY 07, the program will be able install a spatial database for all Districts. The new spatial database, G-ORM, will track workload statistics and program performance and significant information on mitigation including habitat type and success information, critical for insuring the "no net loss" of wetlands goal. The database will also have spatial data on all permits, which will be made available to the public and our state and local partners. Funds also will be used to pay for the review of environmental impact statements (EIS's); some districts are now dealing with unusually large and controversial projects requiring EIS's. Examples of some projects are port expansion projects in Los Angeles and Charleston, "windfarms" in New England, mountaintop mining in the Appalachian area, and programmatic EIS's in south Florida.

The \$160 million will be applied as follows:

Permit Evaluation	\$138,000,000
Enforcement & Resolution	\$ 13,000,000
Administrative Appeals	\$ 1,000,000
Studies (SPGP's) and Wetlands Technical Support	\$ 6,000,000
Environmental Impact Statements	\$ 1,000,000
Compliance for Authorized Activities & Mitigation	\$ 12,000,000
<u>Installation of G-ORM</u>	<u>\$ 2,000,000</u>
TOTAL	\$173,000,000

RECREATION

FY 2007 OPERATION AND MAINTENANCE**Recreation**

Region 01 New England	3,172,000	2,066,000	5,238,000
Region 02 Mid-Atlantic	3,818,000	2,227,000	6,045,000
Region 03 South Atlantic-Gulf	27,755,000	21,346,000	49,101,000
Region 04 Great Lakes	689,000	623,000	1,312,000
Region 05 Ohio	26,115,000	5,891,000	32,006,000
Region 07 Upper Mississippi	16,163,000	6,499,000	22,662,000
Region 08 Lower Mississippi	8,263,000	2,435,000	10,698,000
Region 09 Souris-Red-Rainy	463,000	9,000	472,000
Region 10 Missouri	14,553,000	4,482,000	19,035,000
Region 11 Arkansas-White-Red	39,082,000	8,977,000	48,059,000
Region 12 Texas-Gulf	16,169,000	7,288,000	23,457,000
Region 13 Rio Grande	595,000	504,000	1,099,000
Region 15 Lower Colorado	42,000	0	42,000
Region 17 Pacific Northwest	11,795,000	3,866,000	15,661,000
Region 18 California	13,258,000	2,344,000	15,602,000
Region 19 Alaska	0	0	0
Region 20 Hawaii	220,000	25,000	245,000
Total Recreation	182,152,000	68,582,000	250,734,000

EMERGENCY MANAGEMENT



PROGRAM

[View Similar Programs](#)

RATING

[What This Rating Means](#)

PROGRAM ASSESSMENT

Corps of Engineers: Emergency Management

This program prepares for and responds to natural disasters, including floods, storms and hurricanes, by training and equipping personnel to respond to flood and storm events, repairing flood control and storm protection structures damaged by major floods and storms and conducting other emergency response activities.

PERFORMING

Moderately Effective

- **The program addresses the specific need for disaster response and recovery after hurricanes or major floods by performing emergency repairs to damaged levees and floodwalls.** The Army Corps of Engineers is well-suited to conduct emergency project repairs, given their extensive knowledge of and experience with planning, constructing and maintaining such projects.
- **The program does not always receive funding in the regular, annual budget.** Despite the relative certainty associated with preparing for and responding to emergencies each year, the program routinely relies upon erratic, emergency supplemental funding or emergency fund transfers from other programs.
- **The program lacks a comprehensive database for tracking the maintenance and performance of flood and storm protection projects that it regularly inspects and/or maintains.** This information is necessary to ensure projects perform well during flood and storm events and to improve state and local accountability for maintaining and repairing flood and storm protection projects.

IMPROVEMENT

We are taking the following actions to improve the performance of the

PLAN

program:

About Improvement Plans

- Exploring ways to improve decision-making on the restoration of flood and storm protection structures after an emergency.
- Funding this program at a robust level in the regular, annual budget to support important emergency planning, preparedness, response and recovery activities.
- Proposing funds for an inventory of the Nation's flood and storm projects and development of an analytical tool for assessing project performance and risk of failure.

LEARN MORE

- **Details and Current Status of this program assessment.**
- How all Federal programs are assessed.
- Learn more about Corps of Engineers: Emergency Management.

APPROPRIATION TITLE: Flood Control and Coastal Emergencies (FCCE), FY 2007

SUMMARIZED FINANCIAL DATA:

Annual Appropriation FY 2003	\$ 14,900,000
Emergency Supplemental FY 2003	\$ 60,000,000
Annual Appropriation FY 2004	\$ 0
Emergency Supplemental FY 2004	\$ 0
Annual Appropriation FY 2005	\$ 0
Emergency Supplemental FY2005	\$ 348,000,000
Annual Appropriation FY 2006	\$ 0
Emergency Supplemental FY2006	\$2,277,965,000
Budget for FY 2007	\$ 78,000,000

DISASTER PREPAREDNESS AND EMERGENCY RESPONSE: The U.S. Army Corps of Engineers plays an important role in support of the Federal response to natural disasters throughout the United States. In that regard, the Corps must maintain a preparedness program that ensures the agency is ready to respond to the needs of the Nation. The prudent management of FCCE funds ensures that mobilizing people and materials, obtaining contractor support, and coordinating with other agencies involved in emergency events are accomplished on an expedient, "24/7" immediate response basis. This response can be under Corps authorities, such as P.L. 84-99, 33 USC 701n, Flood Control and Coastal Emergencies, or in support of other agencies, particularly the Federal Emergency Management Agency (FEMA) under the Robert T. Stafford Disaster Relief and Emergency Assistance Act, 42 USC 5121 et seq. Activities under P.L. 84-99 authority include the following: preparedness activities; emergency operations (flood response and post-flood response); emergency repair and restoration of flood control works which are threatened, damaged or destroyed by flood; emergency protection of existing Federal hurricane and shore protection works; the repair or restoration of Federal hurricane or shore protective structures damaged or destroyed by wind, wave or water action of other than ordinary nature; preventive work performed prior to unusual flooding that poses a threat to life or property; providing emergency supplies of clean water following a natural disaster where a source of contaminated water is causing or likely to cause a substantial threat to public health and welfare; and provision of water supplies to drought-distressed areas by reimbursable well drilling or transportation of water at Federal cost.

Included in the funds for these emergency activities are overtime pay for Headquarters staff, travel to support disaster response and recovery operations, supplies and materials, increased staff support from field activities, and Remote Sensing/Geographic Information System (RS/GIS) services to support field operations. In the event that the response to a recovery from emergency depletes FCCE funds, the Secretary of the Army is authorized to transfer funds from other appropriations temporarily, to finance additional response and recovery costs pending additional FCCE appropriations.

APPROPRIATION TITLE: Flood Control and Coastal Emergencies (FCCE), FY 2007 (continued)

Fiscal Year 2006: The Corps of Engineers has successfully prepared for and responded to a wide array of significant natural disasters. Major disaster response efforts were successfully completed for flood events in California, Washington, West Virginia, Indiana, Ohio, and Hurricanes in Florida, Alabama, Mississippi, and Texas. Recovery efforts from Hurricane Katrina and Rita are on-going. Recovery activities for rehabilitation of damaged flood control works and hurricane shore protection are continuing at various locations throughout the continental United States. Other initiatives such as the concept for advance contracting make the Corps more responsive and efficient in disaster related work. Development and maintenance of these and other capabilities are critical to continued success.

Major preparedness efforts include the review and updating of response plans based on lessons learned from recent disasters; training of personnel and teams to develop critical skills which enhance the capability to respond under adverse conditions; procurement and prepositioning of critical supplies and equipment (i.e., sandbags, pumps) which likely would be otherwise unavailable during the initial response stages; periodic exercises to test and evaluate plans, personnel, and training; inspection of non-Federal flood control projects to ensure their viability to provide flood protection and assess their eligibility for post-flood rehabilitation; laboratory support for field operations; liaison with state and local governments and agencies; and effective management to ensure workable, coordinated efforts that will meet the needs of disaster victims. 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 Plan.

FISCAL YEAR 2007: The Budget funds this program at \$81 million. FY 07 funding is needed to maintain program performance, to reduce the risk of disrupting other Corps programs when the Corps responds to emergencies, and to reduce reliance on supplemental funding. The decision to seek this increase is an outcome of an analysis using the Program Analysis Rating Tool (PART). The \$81,000,000 requested for FY 07 will provide for the following activities:

Disaster Preparedness	\$ 28,000,000
Emergency Operations	\$ 20,000,000
Rehabilitations and Levee Inspections	\$ 28,000,000
Emergency Water and Drought	\$ 0
Advance measures	<u>\$ 5,000,000</u>
Total Preparedness Program, FY 2006	\$ 81,000,000

Appropriation Title: Operation and Maintenance – Fiscal Year 2007

National Emergency Preparedness Program (NEPP)

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost of Continuing Program	\$7,000,000
Appropriation for FY 2006	4,950,000
Allocation Requested for FY 2007	5,000,000
Increase of FY 2007 Over FY 2006	50,000

AUTHORIZATION: Executive Orders 10480 and 12656, which cite several acts including The Stafford Act, are the basis for the Federal Response Plan.

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 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 Plan. 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, and for national level emergency water planning. 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, the 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. The 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. The FCCE, on the other hand, provides preparedness and response related to emergency flood fighting, post-

Appropriation Title: Operation and Maintenance – Fiscal Year 2007

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 mission requirements.

PROPOSED ACTIVITIES FOR FY 2007: The FY 2007 program will provide for continuing the implementation of the National Emergency Preparedness Program. The FY 2007 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. 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 to take the lead in this area. Lessons learned from events such as the Senior Leader Seminar, the National Capitol Region workshop, the New Orleans Catastrophic Hurricane Exercise, 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 and other plans as the New Madrid Earthquake, the South Florida Hurricane, the Southern California Earthquake, the New Orleans Hurricane and other contingencies with national implications. Additional efforts will focus on continuing to strengthen COOP readiness and conducting exercises within the scope of available funding during FY 2007.

ACCOMPLISHMENTS IN PRIOR YEARS: The primary focus during FY 2004 provided support to two major national level civil planning areas: (a) support to the nation's ability to mobilize national assets to meet national/regional level emergencies and (b) support to continuity of government and continuity of operations during national emergencies. A HQUSACE Table-Top Exercise (TTEX) was held in May 2004 in Washington, DC. The format of the TTEX was revised from previous events in that it was not executed as a scenario driven tabletop exercise, but rather as a "HQUSACE Round Table" discussion with a general theme of "Readiness in the USACE 2012 Environment." The primary goal of the HQTTEX was to provide a facilitated forum in which senior HQUSACE staff principals and MSC representatives could work together to ensure continued readiness to respond to any contingency by reviewing preparedness/response roles and expectations; identifying, through focused discussions, critical issues or shortfalls associated with the ongoing implementation of the USACE 2012 organization and new management tools while supporting the Global War on Terrorism and the Initial National Response Plan (INRP). Main topics included USACE 2012, Readiness XXI, New Initiatives e.g., National Response Plan (NRP)/National Incident Management System (NIMS), Catastrophic Incident Response Plan (CIRP), Port Readiness, and USACE Continuity of Operations (COOP). The U.S. Army Corps of Engineers (USACE) and FEMA co-sponsored the 2004 Senior Leaders' Seminar (SLS) in June 2004 in Washington, DC. The SLS used a tabletop exercise format to bring together Federal, State, local and private sector partners for candid, solution-focused discussion about infrastructure related issues from a terrorist incident, looking at both infrastructure protection and recovery. The SLS provided an excellent opportunity for the incident management community at all levels of government and in the private sector to gather to ensure our operations are efficient, effective, and complementary. The seminar also allowed USACE, FEMA and their partner agencies to further build a corrective action program to track the resolution of issues raised at the seminars and in disaster after action critiques. The SLS convened senior policy and operational personnel from selected federal, state and local government agencies and private sector organizations who reviewed and discussed the immediate impacts of recent Department of Homeland Security initiatives on the national response system; discussed current plans and strategies for resolving recovery issues identified in past senior leadership seminars, including disaster housing, contaminated debris management, and infrastructure restoration; and examined the new operational relationships and protocols established by the NRP, particularly in emergency support function areas of Infrastructure, Mass Care, Housing and

Appropriation Title: Operation and Maintenance – Fiscal Year 2007

Human Services and Economic Stabilization, Community Recovery and Mitigation and the Catastrophic Incident Response Annex, to successfully coordinate recovery. Additionally, there have been several exercises with NORTHCOM such as Unified Defense 04 and Determined Promise 04. Seminars, workshops, and exercises, such as mentioned above, strengthen partnerships and promote 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 also provide an excellent opportunity to examine contingency plans, capabilities, and communications at federal, state and local levels. Region-specific issues are also identified and addressed.

WATER SUPPLY

Appropriation Title: Operation and Maintenance, General – Fiscal Year 2007

National Portfolio Assessment

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost of Continuing Program (for 2-years)	\$600,000
Appropriation for FY 2006	0
Allocation Requested for FY 2007	300,000
Decrease of FY 2007 from FY 2006 (new program in FY 07)	NA

AUTHORIZATION: There is no specific Congressional authorization for the National Portfolio Assessment. Specific project authorization for each of our projects, however, does provide the authority to review and assess our projects as does Section 216 of the 1944 Flood Control Act. This proposal would permit the view of watersheds and river basins to improve water management and supply efforts.

JUSTIFICATION: The National Portfolio Assessment is an appraisal of the portfolio of existing Corps of Engineer multipurpose projects and will be used as a screening tool to identify the best candidates for opportunities for operational changes and/or reallocation opportunities. The Corps currently manages approximately 380 major dams and reservoirs, providing significant flood control, recreation, water supply, environmental and hydropower benefits to all regions of the country. For example, these projects have prevented over \$700 billion in flood damages, hundreds of millions of visitors enjoy these lakes every year through the various recreational opportunities provided and some 7 million acre-feet of storage space in 130 of these projects are currently capable of providing over 3.3 billion gallons of water per day to meet the needs of cities and industries across the nation. Some of these reservoirs, however, may use operating plans that no longer reflect the best comparative net economic and environmental returns for the nation.

The goal of the program is to guide future basin-specific or project-specific funding decisions to insure existing Corps reservoirs contribute to enhance economic and ecosystem values as water demands evolve. The study would be used as a screening tool to examine more productive ways to operate the reservoirs and to use the storage in the best possible manner in recognition of changed conditions, improved science and increased appreciation of environmental values since the projects were constructed, many of them decades ago. Where opportunities are identified, specifically funded follow-up studies will be proposed for the particular watershed, system of projects or project. Army recommends this study as it both supports the goals of the Civil Works' Strategic Plan and is an element of wise stewardship of the Civil Works infrastructure.

PROPOSED ACTIVITIES FOR FY 2007: Funding in the amount of \$300,000 will be used to initiate the program and to query the 7-Corps Major Subordinate Commands with multipurpose reservoirs as to their ability to utilize these funds in the above manner in an expeditious and cost effective manner. Funds would be allotted based on their response. This is a 3-year proposal with a total study cost of \$1,500,000. Specific follow-up studies would be separately budgeted outside of this program.

National Portfolio Assessment - Retitle "Portfolio Assessment for Water Supply Reallocation." Under authorization, take out the first sentence and simply state that project authorizations and section 216 are the authority. Add a FY 2006 section with "None". Finally, in the FY 2007 section, replace the paragraph with the following. The point is that this is a national assessment of the portfolio. Feel free to improve upon the language below, consistent with this thought.

Appropriation Title: Operation and Maintenance, General – Fiscal Year 2007

"PROPOSED ACTIVITIES FOR FY 2007: Funding in the amount of \$300,000 will be used to initiate the program. An initial inventory and assessment of portfolio of Civil Works reservoirs will be prepared. A methodology will be prepared for more intensive analysis and screening of projects in future years, in order to enable identification of the best opportunities for site-specific reallocation studies."

FY 2007 OPERATION AND MAINTENANCE

Water Supply

Region 02 Mid-Atlantic	45,000	0	45,000
Region 03 South Atlantic-Gulf	525,000	0	525,000
Region 05 Ohio	257,000	0	257,000
Region 07 Upper Mississippi	155,000	50,000	205,000
Region 10 Missouri	70,000	0	70,000
Region 11 Arkansas-White-Red	545,000	0	545,000
Region 12 Texas-Gulf	647,000	0	647,000
Region 17 Pacific Northwest	156,000	0	156,000
Region 18 California	35,000	40,000	75,000
Total Water Supply	2,435,000	90,000	2,525,000

EXPENSES

Justification Of Estimates for Civil Functions Activities
Department of the Army, Corps of Engineers
Fiscal Year 2007
(\$000)

APPROPRIATION TITLE: Expenses

	<u>FY 2006 Allocation*</u>	<u>FY 2007 Request</u>	<u>Change FY 2006-2007</u>	<u>Percent Change</u>
1. Policy Direction and Oversight				
Office of Assistant Secretary of Army (Civil Works)	\$ 3,960	\$ 6,000	\$ 2,040	51.5%**
2. Executive Direction and Management				
a. Headquarters, U.S. Army Corps of Engineers				
Baselevel Operating Expenses	\$ 60,680	\$ 57,873	\$ -2,807	- 4.6%
Civil Works Program Accounts	12,480	10,800	-1,680	-13.5%
Total	\$ 73,160	\$ 68,673	\$ -4,487	- 6.1%
b. Major Subordinate Commands	\$ 68,653	\$ 68,917	\$ 264	0.3%
3. Other Activities				
a. U.S. Army Engineer Research & Development Center (ERDC)	202	\$ 209	\$ 7	3.5%
b. Humphreys Engineer Center Support Activity	\$ 15,159	\$ 15,159	\$ 0	0%
c. Institute for Water Resources	\$ 4,069	\$ 4,149	\$ 80	2.0%
d. USACE Finance Center	\$ 817	\$ 893	\$ 76	9.3%
TOTAL:	\$ 166,020	\$ 164,000	\$ -2,020	- 1.2%

* The allocation shown for FY 06 includes \$8,000,000 of unobligated funds carried in that were allocated by House Report 109-275, the Conference Report accompanying FY 06 Energy and Water Development Appropriations, for use in FY 06. For comparability to FY 07, the allocation shown also includes \$3,960,000 appropriated in FY 06 to the separate account for the Office of the Assistant Secretary of the Army (Civil Works). Finally, the allocation includes \$1.6 million in supplemental appropriations.

** Increase is largely to finance costs previously not sub-allocated to OASA(CW) by the Department of the Army.

1. Policy Direction and Oversight

<u>Office of Assistant Secretary of Army (Civil Works)</u>	<u>FY 2006 Allocation</u>	<u>FY 2007 Request</u>
	\$ 3,960,000	\$ 6,000,000

The Office of the Assistant Secretary of Army for Civil Works (OASA(CW)) supports the Assistant Secretary in accomplishing his or her statutorily established responsibilities to provide overall supervision of the functions of the Department of the Army pertaining principally to the conservation and development of water resources, including flood and coastal storm damage reduction, commercial navigation, aquatic ecosystem restoration, and related purposes, and to the other work executed by the Civil Works program of the Army Corps of Engineers. Additional responsibilities include oversight of the Army Cemeterial Expenses program, including Arlington National Cemetery and Soldiers' and Airmen's National Cemetery, other than on matters related to burial policy, and oversight of Army Corps of Engineers international activities except those in direct support of U.S. forces overseas. Oversight activities include development and review of policy and legislation, budget development and defense, report review, management oversight, and interagency and intergovernmental coordination.

The requested funds will be used to finance costs sub-allocated to the OASA(CW) by the Department of the Army, including indirect costs not previously sub-allocated.

The breakout of costs for the OASA(CW) by major category is shown below.

\$ 3,000,000	Personnel Compensation and Benefits (fully fund authorized staff to accomplish mission)
1,900,000	Support Services (Space, utilities, communications, ADP, etc)
<u>1,100,000</u>	Other (Travel, transportation, training, printing, supplies and equipment)
\$ 6,000,000	

2. Executive Direction and Management

a. <u>Headquarters, U.S. Army Corps of Engineers</u>	<u>FY 2006 Allocation</u>	<u>FY 2007 Request</u>
(1) Baselevel Operating Expenses:	\$ 60,680,000	\$ 57,873,000
(2) Civil Works Program Accounts:	<u>12,480,000</u>	<u>10,800,000</u>
	\$ 73,160,000	\$ 68,673,000

The Headquarters, U.S. Army Corps of Engineers is responsible for providing policy, guidance, and oversight of a comprehensive Civil Works Program. This mission is decentralized across the Corps of Engineers in 37 districts, 8 major subordinate commands (MSCs), and several field operating activities. The Headquarters, U.S. Army Corps of Engineers assists field commands by providing command and control, policy formulation and guidance, national programs management, quality assurance, preparation of the annual budget and legislative submission, national and international interface, resource distribution and oversight of execution, and performance measurement.

The amount requested for the Headquarters, U.S. Army Corps of Engineers for FY 07 consists of two components: the baselevel operating expenses of \$57,873,000; and the Civil Works Program Accounts amounting to \$10,800,000. The Program Accounts provide for activities essential to supporting the Civil Works mission that are deemed appropriate for direct-funding from the General Expenses account. Activities funded in the Program Accounts for FY 07 consist of the

following: Improving Technical Capabilities \$1.5M; Program Management Business Practice Assessment and Enhancement \$1.8M; Guidance Maintenance Program \$2.2M; Automated Information Systems \$0.9M; Leadership/Employee Development \$0.9M; Competitive Sourcing \$1.8M; E-Government \$1.2M; Professional Conferences/Organizational Support \$0.4M; and Remaining Items \$0.1M.

Within the funding for Competitive Sourcing, \$1.7M is for conducting the competition for Operations and Maintenance of Locks and Dams. The Operations and Maintenance of Locks and Dams competition involves approximately 2,000 FTEs with an operating cost of about \$240M annually. The competition is limited to FTEs performing functions that are commercial in nature and suitable for competition, and excludes FTEs performing inherently governmental functions. Historical data from previous competitions across the federal agencies indicate anticipated savings from competitions in the range of 15% to 30%. The Preliminary Planning for the Operations and Maintenance of Locks and Dams revealed that this activity requires on-site presence at the lock and dam sites and as a result the anticipated savings are smaller than other service-type activities. Assuming the competition start in FY 2007 and full end-state operational capability in FY 2010, the savings are anticipated to be approximately \$20M annually. The remaining \$0.1M is for Preliminary Planning for other Civil Works functions that would be completed in FY 2008.

Within the funding for the E-Government Initiative is the following: Geospatial One-Stop (GOS) \$0.1M; National Spatial Data Infrastructure (NSDI) \$0.06M; and IT Knowledge Collaboration Management (KCM) \$1.04M.

By coordinating and partnering with other Federal agencies, the GOS President's Management Agenda E-Government initiative saves USACE the expense of having to maintain information on its own and provides ready access to a full array of available geospatial data. The funds are used to standardize USCAE inland waterways and coastal geospatial data and post it to the GOS data portal (www.geodata.gov) so it can be used by other Federal agencies. This year the USACE has posted over 1,000 records to the GOS portal. In addition, the portal has an increasing number of representative maps and spatial imagery from other federal agencies which provides USACE with the opportunity to utilize the data and resources to enhance its own spatial readiness.

In support of the federal effort to standardize geospatial data, USACE is supporting the National Spatial Data Infrastructure (NSDI) project. NSDI will improve quality and reduce costs resulting from the lack of geographic information interoperability and establish key partnerships and increase data availability with states, counties, cities, tribal nations, academia and the private sector. This effort will not only improve USACE geospatial data but will make federal agency geospatial data more readily accessible by USACE staff.

The remaining \$1.04M is directed to an internal USACE E-Government initiative to support IT KCM, which provides centrally managed solutions for data sharing and collaboration that enable the Communities of Practice. KCM provides a standard environment across the Corps and sets the policies of the Corps web presence. This funding is used to purchase and manage enterprise solutions for implementing within USCAE the President's Management Agenda objective to improve sharing and access of data within organizations. This year this project acquired and fielded collaboration tools and training.

All E-Government activities, both internal and external, undergo close scrutiny by the USACE leadership to ensure they meet the criteria for Program Account funding and are funded to meet essential Civil Works Program mission needs.

The Headquarters staffing level for FY 07 is 402 civilian FTE (includes Nationalized positions) and 44 civil funded uniformed military spaces. The breakout of costs for the Headquarters by major category is shown below.

\$ 56,723,000	Personnel Compensation and Benefits (fully fund authorized staff to accomplish mission)
543,000	Must Pays (Rent, utilities, communications, and critical support services, See FOAs/HECSA for most HQ must pay support costs.)
607,000	Other (Travel, transportation, training, printing and equipment)
<u>10,800,000</u>	Program Accounts (Contracts, support services, and travel)
\$ 68,673,000	

b. Major Subordinate Commands

<u>FY 2006</u> <u>Allocation</u>	<u>FY 2007</u> <u>Request</u>
\$68,653,000	\$68,917,000

Major subordinate commands (MSC) provide the managerial and technical direction required for supervision of subordinate district offices and coordination of regional activities necessary to execute the Civil Works Program. The Executive Direction and Management activities are currently decentralized to 8 MSC throughout the United States. Each MSC provides regional command and control, quality assurance, regional program management, national and international interface, resource distribution and oversight of execution. The civilian FTE staffing level for FY 2007 in the MSCs is 476 plus 16 civil funded uniformed military spaces. The civilian ED&M FTE level for each MSC varies from 60 to 73 based on the scope of their Civil Works responsibilities, with the exception of the Pacific Ocean Division, which has a primarily military mission.

The breakout of cost for the MSCs by major category is shown below.

\$ 58,037,000	Personnel compensation and benefits (fully fund authorized staff to accomplish mission)
8,305,000	Must Pays (Rent, utilities, communications, ADP, critical support services)
<u>2,575,000</u>	<u>Other</u> (Printing, supplies and equipment, travel, transportation, training and other outsourced services)
\$ 68,917,000	

c. Other Activities

<u>FY 2006</u> <u>Allocation</u>	<u>FY 2007</u> <u>Request</u>
\$20,247,000	\$20,410,000

Other activities include: the Humphreys Engineer Center Support Activity (HECSA) which provides administrative support to Corps tenants of the Humphreys Engineer Center and to Corps headquarters; the Institute for Water Resources (IWR) which provides a variety of water management functions such as conducting and managing national studies, special studies in support of the Civil Works mission, data collection and distribution, and technical support to other Corps offices in matters dealing with water resource management; the Engineer Research and Development Center (ERDC) which provides support to the Coastal Engineering Research Board (CERB); and the US Army Corps of Engineers Finance Center (UFC) provides centralized finance and accounting activities. The civilian FTE staffing level for FY 2007 in the FOAs is 119 (no uniformed military spaces).

The breakout of cost for the FOAs by major category is shown below.

\$ 11,408,000	Personnel compensation and benefits (fully fund authorized staff to accomplish mission)
8,821,000	Must Pays (Rent, utilities, communications, ADP, critical support services (includes HQ costs, as HECSA is HQ Spt Cmd))
<u>181,000</u>	<u>Other</u> (Printing, supplies and equipment, travel, transportation, training and other outsourced services (also includes HQ costs))
\$ 20,410,000	

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: (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 appropriations. 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 requested.

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 is 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 requesting 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 U.S. 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. Also, it provides for reimbursement of the general and administrative expenses of District offices.

3. The Corps Revolving Fund, PRIP, includes ten New Major Items for FY 2007 and forty-one Continuing Major Items from FY 2006. Six Continuing Major Items have revised cost estimates above that previously reported in excess of ten percent. The charts below provide cost estimates for the New Major Items, the New Minor Items, and the revised cost estimates in excess of ten percent for the Continuing Major Items.

APPROPRIATION TITLE: Revolving Fund- Plant Replacement and Improvement Program (PRIP)

FY 2007 New Major Items	Page	Total Estimated Cost (\$000)
1. ESSAYONS Draghead Improvement	167	843.6
2. Dredge Wheeler Repowering	167	19,255.6
3. Deck Barges	170	2,189.2
4. Crane – Mobile Truck	171	800
5. Mississippi River Project Office LeClair Base	165	3,085
6. NWD Aircraft Replacement	170	3,000
7. ESSAYONS Hopper Distribution System	166	960
8. GRIZZLY Replacement – Debris Vessel	170	6,580
9. BLACKBURN Replacement – Survey Boat	170	700
10. Addition/Improvements to Information Technology Lab	165	27,500
		64,913.4

Continuing Major Items with Revised Cost Estimates in Excess of 10%	Page	Previous Estimated Cost (\$000)	Revised Estimated Cost (\$000)	Total Cost Increase (\$000)
1. Environmental Lab Building	166	9,105.1	12,061.6	2,956.5
2. BRITTON Replacement	174	6,273.3	6,514.5	241.2
3. Spare Gate Barge	174	5,181	5,887	706
4. Crane Barge MAZON Replacement	174	4,126.7	4,485.1	358.4
5. Facilities and Equipment Management System (FEMS)	175	7,459.9	13,300.0	5,840.1
6. THOMPSON Quarters Barge	169	14,080.2	16,871.9	2,791.7
		46,226.2	59,120.1	12,893.9

<u>PRIP Category</u>	<u>Page</u>
Land and Structures	165
Dredges	166
Other Floating and Mobile Land Plant	170
Fixed Land Plant and Automated Systems	175
Tools, Office Furniture and Equipment	176

APPROPRIATION TITLE: Revolving Fund- Plant Replacement and Improvement Program (PRIP)

MSC/FOA	Dist/ Div FOA	FY 2007 New Minor Item Description	Total Cost	FY07	FY08
ERDC	ERDC	A&B to Building 6010 (EPED Greenhouse)	300.0	300.0	
		High Performance Liquid Chromatography - Inductively Coupled Plasma - Mass Spectrometer	350.0	350.0	
		Wavelength Dispersive Fluorescence X-Ray Spectrometer& Energy-dispersive X-ray Spectrometer	290.0	290.0	
		Upgrade for Concrete Laboratory Engineering Mechanics Testing Facilities	490.0	490.0	
MVD	Rock Island	CAT D7 Bulldozer for Illinois Waterway	360.0	360.0	
	New Orleans	Replacement of Survey Boat Breton	20.0	20.0	
	Rock Island	Tractor Crawler Replacement CAT D7-MV Project	340.0	340.0	
	Memphis	D6 Caterpillar tractor	300.0	300.0	
	Vicksburg	Replace Dump Truck CE 44681 w/Off Road Dump Truck	350.0	350.0	
	Memphis	D6 Caterpillar tractor	300.0	300.0	
	Vicksburg	Replace Dump Truck G82 00246 w/Off Road Dump Truck	350.0	350.0	
	Memphis	D6 Caterpillar tractor	300.0	300.0	
	Memphis	Excavator to replace BH-4	350.0	350.0	
	NAD	Philadelphia	Fire Protection System, Installation, Ft Miflin	400.0	400.0
Philadelphia		Procurement of a Survey Boat & Hydrographic outfitting	300.0	300.0	
Philadelphia		Bachkhoe 325L Procurement, Ft Miflin	265.0	265.0	
NWD	Portland	LAN/WAN Communication Switches	220.0	110.0	110.0
Total FY2007 PRIP New Minor Items			5,285.0	5,175.0	110.0

APPROPRIATION TITLE: Revolving Fund- Plant Replacement and Improvement Program (PRIP)

4. FY 2006 and FY 2007 (Items costing \$700,000 or more)

a. Land and Structures:

(1) Addition and Betterment to Information Technology Lab – Engineering Research Development Center (New). Addition of the project to expand the Information Technology Lab (ITL) was brought about with the scheduled delivery of a Department of Defense purchased supercomputer in mid FY2007. The Engineering Research 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: \$27,500,000. FY2007: \$14,300,000 to initiate construction. Future Years: \$13,200,000. Note: Before this project is executed, it will require Congressional authorization for the use of PRIP funds.

(2) Mississippi River Project Office – Rock Island District (New). Construct a Mississippi River Project Office to accommodate office and administrative staff currently housed in two separate buildings located at the LeClaire Service Base. Building #1 is an antiquated 1920's era concrete walled warehouse converted 25 years ago for office use while Building #2 houses office staff in the attic of a large motor shop which was built in 1953 and modified in 1981 to accommodate the five folks who made up the staff at that time. There are significant safety and health issues associated with both buildings. Building # 1 is located at the back of the service base complex requiring staff, visitors, and the general public to travel through a dangerous construction area utilized by maintenance crews and heavy equipment involved in repair of lock and dam structures and components. Serious blind spots and hazards exist for both pedestrian and vehicular traffic that must have access to this office. This office is also located immediately adjacent to the sandblasting and painting operation. Building #1 is in on the verge of condemnation and will be demolished as soon as a new office is constructed. Building # 2 became severely overcrowded in 1995 when Operations Division reorganized under the nationwide SOS mandate and the office staff increased from 5 to 13 people. The only interior access to this upstairs office is by stairway from the open motor shop where maintenance and repair of heavy equipment takes place daily. Several employees have developed respiratory problems due to the diesel, welding, and paint fumes which rise up and constantly enter the upstairs office space. Both of the existing buildings lack adequate office space and are not compliant with the Americans with Disabilities Act (ADA). The new Mississippi River Project Office will serve to bring all staff together in a central location while providing the necessary and accessible focal point for our customers and stakeholders. It will provide needed space for files, supplies, office equipment, and room to hold meetings and training. Most importantly it will eliminate the serious health and safety problems associated with the existing configuration. Total estimated cost: \$3,085,000. FY 2007: \$2,936,000 to initiate design and construction. FY 2008: \$119,000 to continue construction. FY 2009: \$30,000 to complete construction.

(3) Renovate Docks A and B – U.S. Moorings - Portland District (Continuing). Refurbishing Docks A and B would bring it 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 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. Unfortunately, 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.** Through FY 2005: \$100,000. FY 2006: \$300,000 for design. FY2007: \$300,000 Future Years: \$5,500,000 for construction.

(4) Port Arthur Bulkhead Replacement - Galveston District (Continuing). Replace the Port Arthur boat basin bulkhead and breakwater. The 51-year-old structure is used to provide docking and mooring facilities for the Port Arthur Residence Office floating plant whose primary mission is to maintain the Sabine-Neches Waterway. The bulkhead was constructed with salvage sheet piling, which has become corroded and has severe lamination over much of its surfaces. Holes in the sheet piling and have caused sinkholes behind the bulkhead. In addition, the boat basin cannot prevent wave action from coming into the basin. **Total estimated cost: \$1,017,200.** Through FY 2005: \$933,200. FY 2006: \$84,000 to complete construction.

APPROPRIATION TITLE: Revolving Fund- Plant Replacement and Improvement Program (PRIP)

(5) Environmental Laboratory Building – Waterways Experiment Station (Continuing). New building is required to enable consolidation of the staff in a central location to maximize efficient operations of the Environmental Laboratory. The Environmental Laboratory is currently dispersed throughout several buildings at four different locations within the Waterways Experiment Station. Management, administration and coordination of research activities are difficult and inefficient under the present arrangement. Renovation of existing buildings was investigated, however, it was found that force protection measures which are now required made the addition and betterment option cost prohibitive when compared to new building construction. **Total estimated cost: \$12,100,000.** FY2007: \$11,100,000. FY2008: \$1,000,000 to complete construction. Note: Before this project is executed, it will require Congressional authorization for the use of PRIP funds.

(6) Ouachita-Greenson-DeGray Project Management Office - Vicksburg District (Continuing). The new Ouachita-Greenson-DeGray Project Management Office 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 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. Total estimated cost: \$3,570,000. Through FY 2005: \$259,400 for design. FY 2006: \$2,400,000 to initiate construction. Future Years: \$910,600 to complete construction.

(7) Sardis-Arkabutla Project Management Office - Vicksburg District (Continuing). The building currently occupied by the Project office was built in the early 1940s and was remodeled in 1995. However, it does not meet the current needs of the project office personnel. The building was originally procured from Sardis Lake project funds (CWIS 000600), but is now being utilized in support of Sardis Project Management Office, which includes Sardis Field Lake Office and Arkabutla Lake Field Office. The remodeled project office building provides space for the Project Manager and his administrative staff. The professional staff works out of a trailer that is adjacent to the project office building. The proposed plan adds one wing and a basement to the project office building. The basement design was derived from a need for supporting structure for the addition, housing for a chair lift, a mechanical room, and exit stairwell for fire egress. The addition will meet employee space utilization requirements criteria, provide employee work space in a central location to increase productivity/efficiency, provide adequate supply/equipment storage, and contain electrical systems that meet current technological requirements. Total estimated cost: \$1,482,500. Through FY 2005: \$94,200. FY 2006: \$1,388,300 for construction.

b. Dredges

(1) Dredge ESSAYONS Hopper Distribution System – Portland District (New). The Dredge ESSAYONS will get improved excavator style dragheads as a separate project with installation scheduled for FY08. It is therefore imperative that the existing hopper distribution system be redesigned in order to maximize the retainage of the increased amount of material being placed in the hoppers. Installation of the new distribution system will result in increased retention and reduced loading time. A further benefit will be the reduction in annual maintenance costs for the new system by virtue of the use of highly abrasion resistant materials now coming into use in the dredging industry. Total estimated cost: \$960,000. FY2006: \$20,000. FY2007: \$440,000. FY2008: \$105,000. Future years: \$395,000.

APPROPRIATION TITLE: Revolving Fund- Plant Replacement and Improvement Program (PRIP)

(2) Dredge ESSAYONS Draghead Improvements – Portland District (New). The excavator type dragheads produce much greater specific gravities over the California type currently in use. This equates to an increase in the total solids transported which will boost the production of the dredge ESSAYONS. Excavator dragheads have been on the market for several years and are a proven technology. The new dragheads will be put into service in FY2010, at which time the dredge will have twenty four years of remaining life. Total estimated cost: \$843,600. FY2005 and PY: \$18,600. FY2006: \$40,000. FY2007: \$510,000. Future Years: \$275,000.

(3) Dredge WHEELER Repowering – New Orleans District (New). Repowering by installing a quantity of 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 effect such major repairs. The vessel is used primarily to support the navigation mission by dredging on the Mississippi River, Southwest Pass, and other USACE waterways. Total estimated cost: \$19,255,600. FY2005 and PY: \$37,700. FY2006: \$20,000. FY2007: \$750,000. Future Years: \$18,447,900.

(4) Dredge FRY Shallow Draft Dredge Replacement - 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 to Corps. The FRY has a remaining useful life of 9 years but, is virtually worn out and not environmental friendly. Regulatory agencies have restricted its use due to the disturbance created by the discharge of dredge materials. In 2002, the dredge crane failed resulting in emergency maintenance and more downtime. Alternatively a crane replacement (estimated at \$2 million) and a propulsion system upgrade (estimated at \$1.8 million) would require lengthy shipyard work. The economic analysis supports purchasing a new shallow-draft hopper dredge while NPV of replacement is \$17.1 million; NPV of maintaining the FRY is \$19.7 million. **Total estimated cost: \$12,360,000.** Through FY 2005: \$136,300. FY 2006: \$305,000. FY 2007: \$11,230,000. Future Years: \$688,700.

(5) Dredge ESSAYONS – Replacement of Engine Room Instrumentation, Control and Monitoring System - Portland District (Continuing). Replace the engine monitoring and control system during the current overhaul effort (see #9) in order to properly monitor the new power plant being installed. The existing control and monitoring system on the dredge ESSAYONS is becoming unsupportable due to non-availability of spare parts. It is a hard card system, totally inflexible and not upgradeable. The dredge ESSAYONS is being repowered in 2008. Without the system in operating order, the dredge ESSAYONS will not be able to carry out its mission. **Total estimated cost: \$1,740,000.** Through FY 2005: \$30,000. FY 2006: \$1,170,000 to complete design and initiate construction. FY2007: \$471,200. Future Years: \$10,000.

(6) Dredge MERRITT – Replacement of Side Casting Propulsion System - Wilmington District (Continuing). Convert the side-casting propulsion system to a twin hydraulic outboard propulsion thruster system in order to increase dredging efficiency by 10 percent and to enable dredging across shallower shoals, dredging in both directions and better maneuverability. The dredge MERRITT was converted from a U.S. Navy seaplane wrecking derrick to a side-casting dredge when acquired by to Corps in 1964. Its propulsion system is twin diesel but has had frequent emergency repairs to shafts, propellers and rudders. **Total estimated cost: \$1,800,000.** FY 2006: \$1,000,000 to initiate construction. FY2007: \$800,000 to complete construction.

(7) Dredge JADWIN – Pontoon Pipeline Replacement - Vicksburg District (Continuing). Acquire floating discharge pipeline pontoon barges to replace the discharge pipeline originally furnished with the dredge JADWIN. The dredge JADWIN was built in 1933 and works on the Mississippi River. This pipeline is over 70 years old with maintenance and repair costs increasing to keep it serviceable; the normal economic life of a pipeline is 25 years. **Total estimated cost: \$5,350,800.** Through FY 2005: \$19,800. FY 2006: \$3,966,000 to initiate construction. FY 2007: \$775,000. Future Years: \$590,000 to complete construction.

APPROPRIATION TITLE: Revolving Fund- Plant Replacement and Improvement Program (PRIP)

(8) Dredge JADWIN – Anchor Barge Replacement - Vicksburg District (Continuing). Acquire a new anchor barge to provide the same handling services but operate more efficiently, with less maintenance, and comply with safety requirements. The existing barge is 75-years-old, far exceeding its normal economic useful life of 40 years. The new barge will be used to support the dredge JADWIN on the Mississippi River. **Total estimated cost: \$1,335,600.** Through FY 2005: \$839,600. FY 2006: \$451,000. FY 2007: \$45,000 to complete construction.

(9) Dredge ESSAYONS Bow Discharge System Replacement MDC 2576 – Portland District (Continuing). Replace the Bow Discharge System on the dredge ESSAYONS to improve the mission capability, expand its usefulness, allow for safer operations and more efficiently support the full range of current and future dredging projects. The original side-mounted pump-ashore connections on the dredge ESSAYONS are no longer the industry standard to conduct pump-ashore projects. The existing connection system is not suitable for safe operations in areas exposed to wave action, such as Benson Beach at the mouth of the Columbia River, or beach replenishment projects of southern California. Modern hopper dredges use over the bow pump-ashore connections that are safer and more efficient for working in all conditions. There are pump-ashore projects being developed in Portland, Seattle, San Francisco and Los Angeles, which will require the dredge ESSAYONS. Benefit/Cost ratio is 25.5 to 1. **Total estimated cost: \$810,000.** Through FY2005: \$650,000. FY2006: \$150,000. FY 2007: \$10,000 to complete construction.

(10) 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 with primary mission 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 \$21 million. Benefit/Cost Ratio is 2.23 to 1. **Total estimate cost: \$20,996,200.** Through FY2005: \$846,200. FY2006: \$20,000,000 to initiate construction. FY 2007: \$100,000. Future Years: \$50,000.

(11) Dredge POTTER Floating Pipeline Replacement MDC 2515 – St. Louis District (Continuing). Replace 19 pontoons carrying a floating pipeline, each with a 54-foot length of 32-inch-diameter dredge discharge pipe, for up to 1,000 feet, used to transfer dredge materials outside the navigation channel. The pontoons provide transport and support of the pipe during operations of the dredge POTTER along the Mississippi River. The pontoons are 50 years old and in poor condition requiring annual dry-docking to maintain river worthiness because their hull plating is thin due to wear and age. The pontoons have been replated at least once and above water portions have deteriorated. Repair costs are expected to mount. The economic analysis showed replacement to be the least cost alternative with a NPV of \$4.6 million compared to an NPV of \$5.6 million for repairing and maintaining. **Total estimated cost: \$2,730,300.** Through FY2005: \$2,321,700 for design and initiate construction. FY 2006: \$275,000 to continue construction. FY 2007: \$133,600 to complete construction.

(12) Dredge Tender WAILES Replacement MDC 2521 – Vicksburg District (Continuing). Replace the tender WAILES to current industry standards. The WAILES was built in 1935 and after years of service exhausted its economic life. The WAILES supports operations of the dredge JADWIN by setting anchors, assisting the dredge in staying on-line, setting the landing barge and towing the fuel barge. Dredge Tender WAILES is critical to the execution of the JADWIN's mission maintaining a nine-foot depth in channels of the Mississippi River. It is underpowered and not equipped with flanking/backing rudders severely inhibiting the steering efficiency of the vessel while in the astern or backing mode. In addition, electrical and mechanical systems are unreliable and maintenance costs continue to rise. **Total estimated cost: \$1,882,200.** Through FY 2005: \$1,872,200 for design and construction. FY 2006: \$10,000 to complete construction.

APPROPRIATION TITLE: Revolving Fund- Plant Replacement and Improvement Program (PRIP)

(13) Dredge WM. A. THOMPSON Replacement MDC 2457– St. Paul District (Continuing). Replace existing plant with a component system consisting of dredge, towboat, quarters barge, and other attendant plant to reduce operating costs and downtime. The aging cutterhead dredge WM. A. THOMPSON was built in 1937 and repowered in 1966. This unique self-propelled vessel has consistently proven itself the most cost-effective method of maintaining the 9-foot Mississippi River navigation channel in accordance with PL95-269. Dredge THOMPSON is used primarily for hydraulic dredging maintaining 284 miles of the Upper Mississippi River from the head of navigation at Minneapolis, Minnesota, to Guttenberg, Iowa. The dredge WM. A. THOMPSON has won competitive sourcing six times from 1979 to 2001 and continues to save more than three million dollars annually. Spare parts are becoming increasingly scarce and critical for major machinery components. Although repowering the vessel would extend the asset life another 30 years, it would not eliminate the eventual need for updating structure and habitability items. In Dec 2001, an analysis of dredging requirements determined the THOMPSON be replaced with a component system made up of the replacement dredge, a towboat, and a quarters barge. The quarters barge is being treated as a separate project. **Total estimated cost: \$18,118,100.** Through FY 2005: \$17,438,100 for design and to initiate construction. FY 2006: \$650,000. FY 2007: \$30,000 to complete construction.

(14) Dredge WM. A. THOMPSON Quarters Barge MDC 2593 – St. Paul District (Continuing). Build a quarters barge to accommodate crewmembers onboard; daily shift rotations can be made on schedule thereby reducing overtime; sick leave adjustments are readily adapted to; and there is no risk that the government will not be able to find the necessary rooms in small communities. Galley services will also provide for well-balanced nutritious meals at the same or less cost than the travel order alternative. The dredge Wm. A. Thompson performs maintenance dredging along the Upper Mississippi River from Minneapolis, Minnesota, to St. Louis, Missouri. A new dredge is scheduled to replace the 67-year old dredge in 2006. The Corps of Engineers Most Efficient Organization (MEO) is to dredge 24 hours per day, 7 days a week. This requires crewmembers to work 12-hour shifts for 7 days followed by 7 days off while replacement crews work their 7-day duty. An economic analysis considered two alternatives for providing lodging and meals to crewmembers were considered; put the crew on travel orders and let them stay in commercial facilities, or build a quarters barge. The analysis showed the costs were virtually the same over a 30-year period with the quarters barge providing significantly better management and personnel conveniences to the dredge operations. The quarters barge alternative would cost \$36,058,046 (net present value), while the travel order alternative would cost \$37,058,462. Total Cost: \$16,871,900. Through FY 2005: \$952,400. FY 2006: \$14,800,000 to initiate construction. FY 2007: \$650,000 to continue construction effort. Future Years: \$469,500 to complete construction. This project was submitted as an out-of-cycle notification of Congress of ten percent or greater cost growth to enable FY2006 funding.

(15) Dredge Ladder Extension for the JADWIN, MDC 2276 - Vicksburg District (Continuing). Extend the spare Hurley dredge ladder from 58' to 108' for the JADWIN to enable maintaining the recently deepened 45' navigation channel from Baton Rouge to New Orleans. Lengthening is required because dredging must be accomplished when river stages are still high in order to maintain the authorized depth at low stages. The present practice is to start dredging as soon as the dredge can reach the river bottom. But, with the 58' ladder, sometimes this allows maintaining only a 250' wide channel increasing the likelihood of collisions and groundings. Using the actual cost to convert the dredge Potter as a model, and the change in scope from a newly constructed 75' ladder to lengthening of the spare Hurley ladder to 108'. Modifications will be accomplished during the lay up period, which normally runs from December to June. Total estimated cost: \$1,099,000. Through FY 2005: \$839,000 for design and initiate construction. FY 2006: \$220,000 to continue construction. FY 2007: \$40,000 to complete construction.

(16) Dredge Ladder Extension for the HURLEY, MDC 2450 - Memphis District (Continuing). Make modifications to increase the dredge 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 dredge season to about 250 days per year. E&D identified additional ladder hoisting and forward hull propulsion and maneuverability requirements associated with the longer hull form. Modifications will be accomplished during the lay up period, which normally runs from December to June. Total estimated cost: \$13,063,600. Through FY 2005: \$4,058,600 for design and initiate construction. FY 2006: \$5,000 to continue construction. FY 2007: \$300,000 to continue construction effort. Future years: \$8,100,000 to complete construction.

APPROPRIATION TITLE: Revolving Fund- Plant Replacement and Improvement Program (PRIP)

c. Other Floating and Mobile Land Plant:

(1) M/V GRIZZLY Replacement – San Francisco District (New). The debris boat GRIZZLY has the mission to provide drift removal, hydrographic surveys, project condition surveys, water and sediment sample collection, project inspections, site visits, wreck and channel obstruction location and marking, and to support District dive missions within the San Francisco Bay and delta areas. Previous studies and reports on drift removal operations have included recommendations to gain efficiency by replacing the Grizzly, a fifty five foot tugboat, with a larger, faster vessel. The size, slow speed and age of the 46 year old Grizzly are the reasons for the replacement of the vessel. Critical to the drift removal mission is the efficient extraction of floating hazards to navigation. While imperative to ships, it is increasingly important for the newer, fast ferries and other vessels, which traffic is increasing on the Bay. Due to the new ferries higher speed capabilities, their points of origin are also increasing in distance from the San Francisco terminals. Total estimated cost: \$6,580,000. FY2007: \$490,000. FY2008: \$6,090,000.

(2) M/V BLACKBURN Replacement – Galveston District (New). A new aluminum hydrographic survey boat is required to replace the existing boat which was placed into service in 1974. The existing boat originally supported land survey crews by ferrying them to locations only reachable by water. It was also used to enable government inspectors and project engineers to visit pipeline dredge operations. The boat was converted to a hydrographic survey boat in the 1980s with some modifications. The boat has exceeded its 30 year life and is in need of a complete overhaul to continue in service. An economic analysis has indicated that replacement is far superior to making the necessary repairs to the vessel. The customers of the Galveston District are some of the busiest ports and channels in the Nation, and the equipment is needed to carry out the considerable navigation mission. Total estimated cost: \$700,000. FY2007: \$650,000. Future years: \$50,000.

(3) Aircraft Replacement – Northwestern Division (New). This item was submitted and approved as a FY02 Major Item New Start, however, a more detailed analysis of the requirement was undertaken and the estimated cost has increased more than ten percent since that time. The project is for the replacement of the aircraft currently in use by the Northwestern Division (NWD). The current NWD aircraft is a 34 year old Fairchild, Merlin IV. It was purchased new in 1971 at a cost of \$652,829, and will accommodate ten passengers. The most recent Justification and Economic Analysis of USACE NWD Aircraft by Conklin & Decker (July 2004) recommends acquisition of a used (5 year old) King Air 350 for \$2,950,000. A new King Air 350 was priced at \$5,832,660. An aircraft is critical to the effectiveness of the Northwestern Division. It is used to satisfy those requirements which cannot be met by scheduled air carriers, charter or military air. These requirements include support to natural and national disasters, visits to remote sites, time constrained missions, mobilization exercises, and support to the missions of the Federal Emergency Management Agency under the auspices of the Department of Homeland Security. The special value of an aircraft to NWD is due to the large size and unique nature of the region for which the Division is responsible. The Civil Works mission responsibilities in the Missouri River Basin alone comprise one sixth of the land area of the contiguous 48 states. Total estimated cost: \$3,000,000. FY2007: \$3,000,000.

(4) Construction of Deck Barges – Nashville District (New). Three of the barges of like design support maintenance activities on 19 locks and 1170 miles of navigation channel within the Nashville District. The barges are used as floating work platforms and to transport equipment and components related to lock and dam maintenance activities, such as mobile cranes, generators, air compressors, sheet piling, lock closure structures, and mooring cell templates. The three barges currently in use are in need of replacement and have been in service since 1954. Further use of these vessels would require maintenance expenditures that would exceed the value of the barges. Use of flat deck barges is vital to the accomplishment of the district mission of maintaining navigable waterways on the Tennessee and Cumberland Rivers and their tributaries. The barges used in this district are smaller than the industry standard but they are preferred for their flexibility and exceptional service for the maintenance fleet. Alternatives were studied for continued use, rent/lease, and contracting for deck space. Fabrication and purchase of new barges was found to be the best alternative. Total estimated cost: \$2,189,200. FY2005 and PY: \$9,300. FY2006: \$5,000. FY2007: \$2,027,000. Future Years: \$147,900.

APPROPRIATION TITLE: Revolving Fund- Plant Replacement and Improvement Program (PRIP)

(5) Mobile Truck Crane – Nashville District (New). This crane is an essential component in conducting maintenance activities at 14 navigation locks, 9 hydroelectric power plants, 10 dams, and 10 natural resource management areas within the boundaries of the Nashville District. The crane is used for heavy lifting of equipment and structural components associated with various maintenance projects. The crane is additionally used to support emergency response missions for the District. The existing 75-Ton mobile land crane has reached the end of its life cycle. Repair costs to maintain its continued safe operation are projected to exceed daily costs for a replacement crane. Current lift requirements dictate that a crane with additional lifting capacity be acquired. Alternatives considered instead of replacing this crane were using the existing crane, leasing/renting a crane, and contracting for lift services. Based on cost comparisons, equipment availability, affordability, and safety of personnel and hoisted equipment, purchase of a new mobile truck crane will provide the most practical, cost effective alternative. Total estimated cost: \$800,000. FY2007: \$800,000.

(6) M/V W-46 Replacement MDC 2586 - New Orleans District (Continuing). Replace the Motor Vessel W-46 that is used for hydrographic surveying navigable waterways. Due to the age of this vessel that was acquired from the U.S. Customs Department in used condition, maintenance cost are escalating because it has exceeded its 30 years of useful life. The vessel was not designed as a survey vessel and is not well suited for its present mission. The economic analysis shows replacement of the motor vessel to be the least cost alternative with a NPV of \$6.2 million compared to repairing and maintaining at a NPV of \$6.4 million or NPV of \$7.2 million for lease. Total estimated cost: \$1,245,000. Through FY 2005: \$15,000 to initiate design. FY 2006: \$1,110,000 to complete design and initiate construction. FY2007: \$115,000. Future Years: \$5,000 to complete construction.

(7) M/V VOLLERT Replacement – Galveston District (Continuing). Replace the MV VOLLERT, an aluminum-hulled boat acquired in the 1970's, modified in 1980, and at the end of its useful life. The VOLLERT does not readily allow for optimum use of state of the art hydrographic surveying and position equipment. It is subject to frequent breakdowns hindering management of the navigation channel boundaries from Louisiana to the Rio Grande. The VOLLERT supports the dredging mission at area and project offices in Port Arthur, Galveston, Corpus Christi and Brownsville, Texas. The economic analysis showed replacement to be the least cost alternative with a NPV of \$1.9 million compared to a NPV of \$2.0 to refurbishment and NPV of \$3.7 million for lease. Total estimated cost: \$700,000. FY 2006: \$700,000 to initiate and complete construction.

(8) M/V KING Replacement – Galveston District (Continuing). Replace the MV KING, an aluminum-hulled boat acquired in the 1970's, modified in 1980, and at the end of its useful life. The KING supports the dredging mission at area and project offices in Port Arthur, Galveston, Corpus Christi and Brownsville, Texas. The KING does not readily allow for optimum use of state of the art hydrographic surveying and position equipment; and is subject to frequent breakdowns that hinder management of the navigation channel boundaries that extend from Louisiana on the east to the Rio Grande in the south. The economic analysis showed replacement to be the least cost alternative with a NPV of \$1.9 million compared to a NPV of \$2.0 to refurbishment and NPV of \$3.7 million for lease. Total estimated cost: \$700,000. FY 2006: \$700,000 to initiate and complete construction.

(9) Survey Boat RODOLF Replacement MDC 2440 – Portland District (Continuing). Replace the Survey Boat RODOLF because the vessel will not support the upcoming Columbia River deepening project. This surface effect ship (SES), placed in service in 1980, has become less reliable. The engines are nearing the end of their economic useful life and will require replacement in the next several years. The rubberized components that make up the SES capability of the vessel are expensive and available solely from the original manufacturer. In fact, some of these specialized and proprietary components no longer are manufactured due to the low demand. The RODOLF does surveys of the Columbia and lower Willamette Rivers up to the Bonneville Dam for the dredges ESSAYONS and YAQUINA, and commercially contracted dredges. Total estimated cost: \$1,140,000. Through FY 2005: \$10,000 to initiate design. FY 2006: \$850,000 to complete design and initiate construction. FY2007: 180,000. Future Years: \$100,000 to complete construction.

APPROPRIATION TITLE: Revolving Fund- Plant Replacement and Improvement Program (PRIP)

(10) Survey Boat HICKSON Replacement MDC 2441 – Portland District (Continuing). Replace the Survey Boat HICKSON, placed in service in 1968, because the engines and ancillary machinery are increasingly unreliable and at the end of their economic useful life. The 36-years old, two-stroke engines lack adequate exhaust conditioning to reduce emissions and greenhouse gases. The hull of the vessel will require extensive repairs in a few years. The HICKSON performs ocean port surveys and other surveys for dredging along the Oregon coast and is the only survey vessel in the Corps with size and power to transit rough seas between Pacific ports. Total estimated cost: \$1,910,000. Through FY 2005: \$10,000 to initiate design. FY 2006: \$1,700,000 to complete design and initiate construction. FY2007: \$100,000 to continue construction. Future Years: \$100,000 to complete construction.

(11) Peoria Rock Barges (2) MDC 2584 - Rock Island District (Continuing). Acquiring two rock barges will replace three (a 1959 barge and two 1973 barges), which are used to remove dredge material and rock replacement on the Illinois River from Chicago to Beardstown. The decks of these barges are badly cupped and deteriorated from the many years of loading and unloading. In addition, the boxes are bowed and will need extensive work. **Total estimated cost: \$1,866,900.** Through FY 2005: \$1,446,900. FY 2006: \$250,000. FY 2007: \$170,000 to complete construction.

(12) M/V PEORIA Replacement MDC 2567 - Rock Island District (Continuing). Replacing the M/V PEORIA, a 40-year-old towboat constructed in 1963, is a safety issue, for without power the vessel could be swept over a dam, or into another vessel, dam or structure. In addition, the thinning hull will need to be re-skinned. Its mission is to tow repair fleet on the Illinois and Inland Waterways. This single crew boat is used to position crane barges for lock and gate work at eight locks and dams. The engine, replaced in 1976, will soon need replaced again. Should the engine fail, the PEORIA has no means to maneuver, and is undersized and underpowered for towing the newer barges and cranes. This Total estimated cost: \$7,245,000. Through FY 2005: \$6,600,000. FY 2006: \$500,000 to continue construction. FY 2007: \$45,000 to complete construction.

(13) Deck Barges Replacement MDC 2588– Omaha District (Continuing). Replace six deck barges built in 1946, which are in very poor condition and marginally watertight integrity. The barge's interior structure has been leaking for the past 15 years. The bottoms, tops and most of the sides have been removed and replaced several times but, due to the extreme rusting of the interior structure this is no longer feasible and beyond economical repair. Their primary purpose is to support the Missouri River Bank Stabilization and Restoration, the Kenslers Bend Bank Stabilization and the Missouri River Fish and Wildlife Mitigation projects. In addition, the deck barges are used to transport silt and sand dredge material on the Missouri River. The barges are at risk of sinking and placing the towboat's crew in an unsafe environment. An economic analysis favored replacement of deck barges with NPV of \$3.1 million compared to repairing and maintaining at NPV of \$2.5 million. Total estimated cost: \$2,981,300. Through FY 2005: \$2,747,300 for design and to initiate construction. FY 2006: \$155,000 to continue construction. FY 2007: \$79,000 to complete construction.

(14) KIMMSWICK Replacement MDC 2551 – St. Louis District (Continuing). Replace the Tender KIMMSWICK, a 34-year-old towboat because the hull plating is thin, the diesel engines are 15 years old and in need of overhaul or replacement. The electrical and mechanical systems on the KIMMSWICK are original parts and unreliable due to age. The Tender KIMMSWICK serves as attendant plant assisting the dredge POTTER along the Mississippi, Illinois, and Kaskaskia Rivers. The KIMMSWICK positions the pipeline, places anchors, and tows the dredge between locations and transports personnel. An economic analysis showed that replacement was the least cost alternative with a NPV of \$6.5 million compared to an NPV of \$7.7 million for repairing and maintaining. Total estimated cost: \$1,820,400. Through FY 2005: \$1,760,400 for design and to initiate construction. FY 2006: \$60,000 to complete construction.

APPROPRIATION TITLE: Revolving Fund- Plant Replacement and Improvement Program (PRIP)

(15) Towboat PATOKA Replacement MDC 2573 – Mobile District (Continuing). Replace the 46-year-old PATOKA towboat because the mission has changed due to replacement of the crane barge with a new 35-ton capacity crane barge @ 50-foot radius. The new mission of the towboat includes maintaining the nine locks and spillways on the Black Warrior and Tombigbee and Alabama River systems. Repairs have kept the towboat operating but have not addressed the age of the hull, piping systems and electrical distribution system. Repowering the PATOKA from the present 680 to the maximum 900 would only provide half the horsepower needed to safely support the new crane barge and attendant plant. The PATOKA is used to provide crew quarters and mobility support for navigation channel maintenance on the Gulf Intercostals Waterway from Pensacola, Florida, east to Apalachicola Bay at the East Pass (Destin), Escambia River, Bayou Chico, and Scipio Creek and on the Apalachicola-Chattahoochee-Flint River system projects in Florida. An economic analysis favors replacement by acquisition with an NPV of \$5.2 million was the least costly alternative as compared to lease option with NPV \$11.1. Total estimated cost: \$6,544,500. Through FY2005: \$6,034,500 for design and to initiate construction. FY 2006: \$400,000 to continue construction. FY 2007: \$100,000 to complete construction effort.

(16) Towboat IROQUOIS Replacement MDC 2297 – Nashville District (Continuing). Replace the IROQUOIS because major maintenance and repair will not allow it to continue service for more than a few years. The IROQUOIS was scheduled for replacement in 1995. The vessel has been seaworthy until recently when major hull components began showing signs of metal fatigue and the effects of 46 years of service. Shipyards could not guarantee how long the major repairs would extend the vessel's life. The vessel lacks the power to push modern floating plant equipment of the repair fleet in high flow conditions, frequently experienced on the 1,170 miles of navigable channels and 14 navigation locks along the Ohio River, Tennessee, and Cumberland Rivers. This poses a severe safety problem to the vessel's crew, attending floating plant, and repair fleet's mission. In addition, the IROQUOIS was designed and constructed before collision bulkheads and double plating for fuel tanks were required and poses an environmental danger should the hull become compromised. The 750 horsepower towboat, constructed in 1955 is used to transport and position floating plant items such as derrick boats, deck barges and dump scows. On several occasions, the IROQUOIS has responded to emergency dredging requests to aid in keeping river traffic moving. Total estimated cost: \$4,000,000. Through FY2005: \$3,898,000 for design and initiate construction. FY 2006: \$90,000 to continue construction. FY 2007: \$12,000 to complete construction effort.

(17) Derrick Boat No.10, Crane and Shop Barge Replacement MDC 2559 – Nashville District (Continuing). The replacement will be a deck barge with spuds, a small workshop and a reinforced deck, which will allow the future addition of a heavy lift crawler crane. In addition, the existing barge is under-sized to handle the increasingly complex maintenance activities at aged lock structures, and will not have the capacity to maintain the new Kentucky Lock. This acquisition is consistent with the Floating Plant Improvement Plan to replace smaller barges approaching the end of useful life with larger capacity barges. The barges support construction and maintenance activities on the 1,170 miles of navigable channels and 14 navigable locks. The barges are used to transport equipment such as mobile cranes and structures such as lock closure structures, mooring cell templates and lock dewatering pumps related to lock and dam maintenance activities. Total estimated cost: \$6,712,100. Through FY 2005: \$6,427,000 for design and construction. FY 2006: \$210,000 to continue construction effort. FY 2007: \$75,000 to complete construction.

(18) Crawler Crane, MDC 2643 – Nashville District (Continuing). This large capacity mobile crane replaces the oldest Derrick Boat No. 10 in order to meet the growing workload and heavy lift requirements on the 1,170 miles of navigable channels and at 14 navigation locks. The new crane will support construction and maintenance activities and operate from the new shop/crane barge (MDC 2559) currently under construction. Two aged derrick boats that see extensive utilization have inadequate lifting capacities of less than 75,000 lbs at a fifty-foot radius. Derrick Boat No. 10 frequently makes lifts that exceed 90 percent of its rated lifting capacity causing abnormal wear on machinery and components resulting in higher maintenance cost and increased downtime. Serious damage to the Derrick boat and the possibility of injury to employees could occur. Total estimated cost: \$3,833,000. Through FY 2005: \$3,473,000 to complete design and initiate construction. FY 2006: \$332,000 to continue construction. FY 2007: \$28,000 to complete construction effort.

(19) Maintenance Gate Barge and Spare Gates MDC 2492 – Rock Island (Continuing). Acquire spare gate barges to be available to return a lock to service. The age of the lock structures, over 60 years old, combined with heavy usage, results in both sets of spare gates on hand being in use most of the time. In the event of the failure of an additional structure and without additional spare gate replacement capability, there would be none available to return a lock to service. In that event, without the rapid replacement of a damaged gate, commercial traffic on the Mississippi River could be delayed due to a lock shut down creating a substantially negative economic impact. It is estimated that the economic cost to the region would be approximately \$10,000,000 over the next 40 years, the estimated life of the gate barge. Total

APPROPRIATION TITLE: Revolving Fund- Plant Replacement and Improvement Program (PRIP)

estimated cost: \$5,887,000. Through FY 2005: \$5,687,000 for design and construction. FY 2006: \$120,000 to continue construction. FY 2007: \$80,000 to complete construction.

(20) Crane Barge MAZON Replacement MDC 2509 – Rock Island District (Continuing). Replace the Crane Barge MAZON that in the last six years has had an average of six weeks of down time per year due to repairs. The Crane Barge MAZON hull is worn thin, in need of repairs and at the end of its useful life. The crane, built in 1970, is continuously breaking down. The MAZON is required to be available 52 weeks of the year and is used for strike removal and stone placement on the Illinois River, as well as for lock and dam work throughout the Illinois River basin from Chicago to Grafton, and occasionally the Ohio and Mississippi rivers. The lack of a rapid response capability will delay navigation and cause economic harm. In addition, the MAZON has no restroom facilities, limited storage space and no transport capability for the crane. The estimated cost: \$4,485,100. Through FY 2005: \$4,246,800 for design and construction. FY 2006: \$168,300 to continue construction effort. FY 2007: \$70,000 to complete construction.

(21) Crane Barge KEWAUNEE Replacement MDC 2481 – Rock Island (Continuing). Replace the KEWAUNEE crane barge, which is 88 years old, because it has suffered corrosion combined with normal wear and tear that has deteriorated it to the point where repairs are no longer feasible. A breakdown of the KEWAUNEE crane barge causes costly delays to accomplishment of the mission. The KEWAUNEE is used to support the Quad Cities crane barge during gate changes and to provide daily support to structural maintenance gate repairs. The cranes and barges are vital to the operation of the maintenance unit for repairs to the miter gates. The barge, constructed in 1913, was converted to a crane barge in 1981. The crane is near the end of its life. Total estimated cost: \$9,455,000. Through FY 2005: \$228,800 for design. FY 2006: \$8,795,000 to initiate construction. FY 2007: \$200,000 to continue construction. Future years: \$231,200 to complete construction.

(22) Towboat ROCK ISLAND Replacement MDC 2555 – Rock Island District (Continuing). . Replace the 31-years-old Towboat ROCK ISLAND that has developed extensive pitting on the hull exterior requiring a costly hull replacement below the waterline. The internal black water-holding tank, an integral part of the hull, has corroded through and has been abandoned in place due to the high cost of replacement. In addition, the ROCK ISLAND is underpowered and requires additional horsepower to move the fleet safely. Continued operation of the boat under current conditions will result in increased maintenance costs and reduced reliability. The Towboat ROCK ISLAND is used to support the M/V Bettendorf, transport the structure maintenance fleet and tend the Derrick Boat KEWAUNEE during gate changes. Total estimated cost: \$6,924,300. Through FY 2005: \$6,314,300 for design and construction. FY 2006: \$350,000 to continue construction. FY 2007: \$250,000 to continue construction effort. Future years: \$10,000 to complete construction.

(23) Towboat M/V GEORGE W. BRITTON Replacement MDC 2350– Huntington District (Continuing). Replace The M/V George W. Britton (Towboat 71) because its underpowered 1200 horsepower propulsion system impairs the ability of the vessel master or pilot to move the fleet safely and efficiently. The M/V George W. Britton is used to transport the repair fleet floating plant to perform scheduled or emergency maintenance to 400 miles of navigable channels and navigation structures on the Ohio and Kanawha Rivers. The floating plant has nearly double its original size, capacity and tonnage in recent years. Transport of existing floating plant from one project to another during high water periods requires two trips. During high water periods, the Britton's rate of travel is often slowed to less than one mile per hour pushing on one-half the fleet. The economic analysis shows that re-powering the Britton is slightly cheaper than the cost of acquiring a new towboat. However, re-powering would extend the useful life of the Britton by only ten years whereas, a new towboat has a 40-year life. Total estimated cost: \$6,514,500. Through FY 2005: \$6,279,500 for design and initiate construction. FY 2006: \$225,000 to continue construction. FY 2007: \$10,000 to complete construction effort.

(24) Towboat M/V LIPSCOMB Replacement MDC 2520 – Vicksburg District (Continuing). The proposed replacement would have more horsepower and a modernized hull design for increased towing and operational efficiency. The new vessel would require a smaller crew. The M/V LIPSCOMB is used to support revetment construction and maintenance along about 1,000 miles of navigable channels on the Mississippi, Atchafalaya and Red Rivers, and Channel Patrol on the Mississippi River. The M/V LIPSCOMB was built in 1958 and has outlived its normal economic life by 2-1/2 years. Furthermore, the LIPSCOMB has no compartment flood ability that is a major safety issue for crew and passengers. The Corps standard is one-compartment damage stability for this type vessel. The updated economic analysis shows the replacement of the LIPSCOMB is more cost effective, with a NPV of \$57.8 million, 17% less than the alternative of maintaining and repairing the existing vessel. Total estimated cost: \$9,784,000. Through FY 2005: \$9,421,700 for design and construction. FY 2006: \$350,000 to continue construction. FY 2007: \$12,300 to complete construction effort.

APPROPRIATION TITLE: Revolving Fund- Plant Replacement and Improvement Program (PRIP)

d. Fixed Land Plant and Automated Systems

(1) Radio System Migration - Portland District (Continuing). The Department of Defense participated in the 2002 national decision to identify radio frequency spectrum for commercial advance wireless mobile services. The result proposed that 45 MHz of government spectrum, primarily used by DOD, would be made available for advance wireless mobile service. As such, the Federal Communication Commission is formalizing the transfer of that frequency band to nongovernmental use and DOD must cease operation in the band by 1 January 2008. In addition, the National Telecommunications & Information Administration Manual is requiring all users of other selected frequencies to discontinue by the same date. Portland District utilizes the bandwidth in question for the following, mission critical functions: a) water quality monitoring throughout the Lower Columbia River and Willamette River basins; b) flood control at dams and reservoirs; c) inter and intra project radio communications, and; d) emergency radio and telecommunications in the event of a crisis. This migration away from the existing bandwidth will require significant purchase and installation of radio and transmission equipment. Total estimated cost: \$1,195,000. Through FY 2005: \$85,000. FY2006: \$990,000. FY2007: \$120,000.

(2) Facilities and Equipment Maintenance System (FEMS) – Corpwide (Continuing). FEMS is a Department of Defense migratory Computerized Maintenance Management System (CMMS). The Joint Logistics Systems Center (JLSC) developed the system to meet the needs of DoD maintenance organizations. This system was designated as a DoD migratory system in 1995. FEM is the Corps tailored version of MAXIMO Enterprise Base Systems (MRO Software, Inc.), which is a Commercial-Off-The-Shelf-System (COTS) package. FEM is deployed at the Corps' two consolidated data processing centers, and integrates O&M business processes into a cost-effective asset management program. It supports and consolidates functions within each O&M business line providing the capability to track life cycle costs of all assets. FEM is being deployed in FY05/FY06 within the Northwest Division. Development is ongoing to meet the requirements of E.O.13327 for asset management and to update the COTS product to web-based applications. This maintenance management system is the keystone to the development of a Sustainable Infrastructure Program for all Corps assets. Aging locks and dams and flood damage reduction structures, as well as coastal structures such as jetties, breakwalls and groins are in need of rehabilitation, repair and increased maintenance to prevent failure or major breakdown of navigation and flood protection systems. The FEM will establish optimal preventive maintenance criteria to effectively reduce risk and improve reliability. Total estimated cost: \$13,300,000. Through FY 2005: \$7,250,000 for development. FY 2006: \$2,005,000 for systems interface and functional testing within a regional business center. FY 2007: \$ 1,805,000 to begin implementation. Future Years: \$2,240,000 to complete implementation. This project is being submitted for notification of cost growth in excess of ten percent and for funding in FY2006 as an out-of-cycle request.

(3) Corps of Engineers Automation Plan (CEAP) (Continuing). The capital acquisition portion of CEAP, renamed Corps of Engineers Enterprise Infrastructure Services (CEEIS) was created to replace the Corps mainframe computing hardware consisting of leased Honeywells at the division level and Corps-owned Harris computers at the district level. The Corps awarded a contract to the Control Data Systems, Inc., in October 1989 for hardware/software acquisition and support services. The contract was structured for maximum flexibility, not committing the Corps beyond the first year but providing the Corps with 10 annual renewal options. The contract also provided for a pilot test at the Southwestern Division, the Waterways Experiment Station, and the former Headquarters' Engineer Automation Support Activity. Based on pilot and stress test results and a cost comparison of various deployment scenarios, the Corps redeployed pilot test equipment to two large regional processing sites, one in Portland, Oregon and the other in Vicksburg, Mississippi. To maintain a viable corporate-wide system at these two regional sites, the Corps has invested in additional mainframe processing capacity, operating software, additional storage capacity, communications devices, and associated processors to link all Corps sites to the two regional centers. Total estimated cost: \$112,440,000. Through FY 2005: \$96,240,000. FY 2006: \$3,000,000. FY 2007: \$3,300,000. Future Years: \$6,600,000.

APPROPRIATION TITLE: Revolving Fund- Plant Replacement and Improvement Program (PRIP)

e. Tools, Office Furniture and Equipment

(1) South Pacific Division and San Francisco District Relocation (New). Unexpected PRIP funding in FY2006 for the relocation of the South Pacific Division and San Francisco District offices is necessitated by a decision by the new owner of the presently occupied building not to lease space. While the lease was due to expire, it was assumed that the new owner would simply carry on with rental agreements. The Corps offices are to vacate the space in May of 2006. GSA space has been located for the two offices to be co-located, and the requested funding is for phone network infrastructure, computer network cabling and equipment, systems furniture, and building modifications. This project has been submitted as an out-of-cycle request for funding approval in FY2006 in order to advance the construction. Total estimated cost: \$5,200,000. FY2006: \$5,200,000 Initiate and complete construction. An out-of-cycle approval has been requested of the Congress so that this project can proceed in FY2006.

(2) Zorinsky Building GSA Leasehold Improvement and Furniture - Omaha District (Continuing). The Edward Zorinsky Federal Building, a GSA owned building is currently undergoing a complete building renovation. To accommodate the renovation, the Omaha District has temporarily moved its Headquarters to three temporary locations. During the GSA renovation of the building, the district is responsible for communications wiring for workstations to the local area network (LAN), a computer room, an AV equipment and control system in the Executive Conference Room and installation of a communications data center switch and an uninterrupted power supply. In addition, the plans include purchase of modular/systems furniture for 830+ employees. The existing furniture used at the temporary locations, moved from the Zorinsky Building, range from 7-year-old systems furniture to 20-year-stand-alone furniture with conditions ranging from good to unserviceable. This furniture requires an average of 190 square feet per person. The purchase of new system/modular furniture will reduce the average space utilization to 160 square feet per person, thus reducing the footprint by 30 square feet per employee. Upon completion of the renovation of the Zorinsky Bldg, GSA anticipates the rent will be at least \$25.00 per sq foot. Saving 30 square feet per person with 830 employees is a cost avoidance or savings of \$622,500 per year in rent. Total estimated cost is \$7,645,000 for FY 2007 leasehold improvement and furniture purchase.

INVESTIGATIONS

e. Coordination with Other Federal Agencies, States, and Non-Federal Interests

(1) 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, coastal zone management, and dam safety.

SUMMARIZED FINANCIAL DATA:

Allocation Requested for FY 2007	\$4,650,000
Allocation for FY 2006	\$5,669,730
Change in FY 2007 from FY 2006	-\$1,019,730

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. These customers recognize the need to develop locally directed solutions to their water resources problems. Interest from states, regional and local governments, Indian tribes, and other non-Federal public agencies in this highly efficient and effective Program continues to grow. The FY 2006 amount will enable the Corps to provide much needed planning and technical assistance to aid them in a wide variety of water resource efforts, including environmental restoration studies, watershed planning, and flood plain management planning. Currently, there are ongoing studies that require additional funds to complete, and a number of unfunded studies that have been identified by states, communities, and Indian Tribes as high priority studies. The FY 2007 request will allow the Corps to continue and complete ongoing studies, and initiate additional high priority studies.

ACCOMPLISHMENTS:

In fiscal year 2005, the Corps of Engineers had hundreds of studies underway in almost every State and the Pacific and Caribbean Islands, and 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 restoring urban river environments, and accomplishing wetlands identification and mapping studies. In addition, efforts were undertaken to assist states and local governments in ecosystem restoration, drinking water supply and demand, water quality, and flood damage reduction.

APPROPRIATION TITLE: Investigations, FY 2007

1. Surveys

e. Coordination with Other Federal Agencies, States, and Non-Federal Interests (Continued)

(2) Other Coordination Programs

Allocation For FY 2006 \$3,998,000

Allocation Requested For FY 2007 \$3,673,000

(a) The Special Investigations request is \$1,600,000. The amount of \$100,000 provides for the review of preliminary permit and licenses applications for non-Federal hydroelectric power development either at or affecting Corps water resource projects. The amount of \$1,500,000 provides for (1) special investigations and reports of nominal scope prepared pursuant to Congressional and other requests from outside the Corps of Engineers for information relative to projects or activities which have no funds; (2) similar work of detailed scope, as specifically authorized by the Chief of Engineers; and (3) review of reports and environmental impact statements of other agencies. Among the investigations paid for from these funds are investigations of nominal scope of flooding potential and flood damages, drainage, harbor improvements, anchorages, and development of navigation channels.

(b) The Gulf of Mexico Program (GMP) request is \$100,000. The GMP formulates and implements creative solutions to economic and environmental issues with Gulf-wide and national implications. The GMP also serves as the regional administrative component of Coastal America (CA). Hypoxia/nutrient enrichment reductions, habitat restoration/protection, public health (shellfish) improvements and non-indigenous species impact reductions are the GMP focus areas. The GMP's lead in facilitating the Gulf Region's response to the Ocean Action Plan is highlighting the Corps habitat restoration and support (e.g., regional sediment management) capabilities. U.S. Environmental Protection Agency-initiated, the GMP is partnership-driven, blending the programs and resources of Federal, state and local governments, with the resources and commitments of business, industry, citizens groups and academia. The Corps has a staff member serving as liaison to the GMP Office (GMPO). That individual's primary duty is to provide the linkage between HQUSACE, the Southwestern, Mississippi Valley and South Atlantic Divisions, and their Gulf districts and the current and evolving activities of the GMP/GMPO/CA Gulf Region. Personnel from several districts and divisions serve on various task groups and support focus area groups. Secondary duties of the Corps liaison include: 1) coordinating with and supporting the Corps representative on the GMP's Management Committee as well as the DOD representative serving on the GMP's Policy Review Board; 2) functioning as the Corps' alternate Management Committee representative; 3) functioning as a GMPO Interagency Management Team Member; 4) mentoring the GMPO Habitat Focus Team; and, 5) serving as a member of the GMPO Hypoxia Focus Team. The Corps liaison also: 1) serves as the Corps' functional and program link to the Coastal America-Gulf of Mexico Regional Implementation Team and national CA office; and, 2) serves as a CA regional co-chair. The requested funds will allow partial participation of the Corps in implementation of GMP-formulated and associated CA initiatives.

APPROPRIATION TITLE: Investigations, FY 2007

1. Surveys

e. Coordination with Other Federal Agencies, States, and Non-Federal Interests

(2) Other Coordination Programs (continued)

(c) Chesapeake Bay Program. The amount of \$75,000 is requested to continue 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 in the CBP Implementation Committee and the Federal Agencies Subcommittee addressing various subjects such as wetlands, submerged aquatic vegetation, and land stewardship. The Baltimore District will accomplish limited work associated with the lead on two initiatives (Anacostia Biennial Workplan and Chesapeake Bay Habitat Restoration) from the Agreement of Federal Agencies on Ecosystem Management in the Chesapeake Bay signed in July 1994 and its successor, the Federal Agencies Chesapeake Ecosystem Unified Plan (FACEUP) signed by the ASA(CW) in 1998, as well as participating in workgroups on other aspects of the agreements. 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 nutrients management plans. Many of these actions affect Corps authorized missions in the Chesapeake Bay. It is very important for the Corps representatives to be active members of the CBP Implementation Committee, the Federal Agencies Subcommittee, the Federal Agencies Subcommittee and other working groups.

(d) The Pacific Northwest Forest Case Study request is \$50,000. The Northwest Forest Plan (NFP) is an interagency program, initiated by the White House's Council of Environmental Quality, for ecosystem management of watersheds within the public lands in the Pacific Northwest within the range of the Northern Spotted Owl (24,000,000 acres). The NFP institutes an interagency approach for restoring and protecting animal and plant species on public lands and restoration of environmental habitats. In FY 1999, the Corps of Engineers became an official signatory agency to the NFP Memorandum of Understanding. However, due to reduced funding over the past several years, the Corps did not resign the new MOU in 2003. With the funds requested, Portland District will participate in NFP activities as an adjunct representative to the various regional executive and management committees on a part-time basis. NFP participants are presently concentrating on further refining the scopes of agency participation and contributions with the goal of streamlining the implementation of timber and restoration activities within its watershed-scale ecosystem management strategies. Many of these strategies and programs involve, and will benefit from, the Corps authorized missions throughout the western states. The NFP presents the best outreach 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.

APPROPRIATION TITLE: Investigations, FY 2007

1. Surveys

e. Coordination with Other Federal Agencies, States, and Non-Federal Interests

(2) Other Coordination Programs (continued)

(e) The Interagency Water Resources Development request is \$905,000. This amount provides \$750,000 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. It also provides \$50,000 for two American Heritage River Navigators who are supported by the US Army Corps of Engineers, based upon Executive Order 13061, dated 11 September 1997. These River Navigators provide direct support to the Community Partners for the New River, which flows through NC, VA and WV; and for the Upper Mississippi River above St. Louis, MO. The navigators assist the individual communities and community partners in accessing a variety of Federal programs to achieve the goals in the river workplans. Funds are also included to contribute to the Coastal America Partnership, including \$25,000 to assist in supporting the national office and up to \$80,000 in support of the regional teams.

(f) The Interagency and International Support request is \$255,000 of which \$75,000 will allow the Corps of Engineers to participate with other Federal agencies and international organizations to address problems of national significance to the United States. The Corps of Engineers has widely recognized expertise and experience in water resources, infrastructure planning and development, and environmental protection and restoration. Frequently, other Federal agencies, particularly the State Department, the Agency for International Development, and international organizations, request use of the Corps talents in addressing problems of utmost importance to the United States. Often the requesting entity is not able to reimburse all Corps costs, including salaries, but yet the success of the program can be greatly enhanced by employing the talents of the Corps. In many cases the Corps abilities to perform its civil works mission or promote opportunities in the U.S. private sector are also enhanced. In FY 2006, the program funds are being used to support the State Department on global water issues, the World Water Council, and agencies of the United Nations including UNIDO (Industrial Development Organization) on water-related issues, humanitarian assistance, and other initiatives of national importance. The requested funds will be used to cover Corps salary and travel costs not otherwise available. International activities will be undertaken only after consultation with the State Department.

Funds of \$180,000 will support Corps collaboration with the Dutch 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. A workshop is being planned to address the lessons learned from the Gulf area and extending them further through an international workshop that we will co-host with the University of Maryland in the fall of 2006. Survey Report: In November 2005, a team of experts convened in the Hague to compare and contrast the Dutch and US experiences in water resource management over the past two hundred years. A critical series of essays will be prepared that explore the political, technical and economic underpinnings of critical Dutch and US trends.

APPROPRIATION TITLE: Investigations, FY 2007

1. Surveys

e. Coordination with Other Federal Agencies, States, and Non-Federal Interests

(2) Other Coordination Programs (continued)

(g) The Inventory of Dams request is \$200,000. These funds will be used for continued maintenance and publication of the National Dam Inventory. 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 and Security Act of 2002 (Public Law 107-310). This funding level will provide a minimum level of maintenance of the inventory but does not assure completeness of the inventory for public safety and security purposes. 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. 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 over 78,000 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. These funds will be used to implement improved information flow and data quality control processes, to greatly enhance the state of knowledge management for dam safety. 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. 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. Additional efforts are also required to ensure data security in response to Homeland Defense 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).

(h) The National Estuary Program request is \$50,000. 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. To date, the following 28 estuaries have been designated under the program: Puget Sound, WA; Delaware Estuary, DE, NJ & PA; and Delaware Inland Bays, DE; New York/New Jersey Harbor, NY-NJ; Sarasota Bay, FL; Santa Monica Bay, CA; San Francisco Bay, CA; Galveston Bay, TX; Albermarle/Pamlico Sound, NC; Buzzards Bay, MA; Narragansett Bay, RI; and Long Island Sound, CT-NY, NY; Massachusetts Bay, MA; Barataria/Terrebonne Bays, LA; Indian River Lagoon, FL; Casco Bay, ME; Tampa Bay, FL; San Juan Bay, PR; Corpus Christi Bay, TX; Tillamook Bay, OR; Peconic Bay, NY, Barnegat Bay, NJ; Charlotte Harbor, FL; Lower Columbia River Estuary, OR & WA; Maryland Coastal Bays, MD; Mobile Bay, AL; Morro Bay, CA; and New Hampshire Estuaries, NH. 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, FY 2007

1. Surveys

e. Coordination with Other Federal Agencies, States, and Non-Federal Interests

(2) Other Coordination Programs (continued)

(i) The North American Waterfowl Management (NAWMP) request is \$50,000. 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. The Corps of Engineers has broad water resources development responsibilities and authorities and has stewardship responsibilities for over seven million acres of water and land. Many Corps of Engineers projects contribute directly or indirectly to the habitat base for the nation's waterfowl, and other wetland species. Current and future Corps of Engineer projects are expected to play an even greater role, particularly during years of low rainfall. Also, the Corps of Engineers has recognized extensive environmental engineering and technical expertise and experience that can contribute greatly toward meeting the NAWMP waterfowl habitat improvement goals and objectives. The requested funds would be used to cover costs of Corps of Engineers field office participation in the field trips, interagency coordination meetings, and information transfer in response to conditions set forth in the agreement between the Department of the Interior and the Department of the Army.

(j) The Coordination With Other Water Resources Agencies request is \$200,000. 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.

APPROPRIATION TITLE: Investigations, FY 2007

1. Surveys

e. Coordination with Other Federal Agencies, States, and Non-Federal Interests

(2) Other Coordination Programs (continued)

(k) The CALFED request is \$94,000, which will be used to continue the coordination, support, and USACE representation efforts in the Federal and State CALFED Bay-Delta process in Fiscal Year 2007. The CALFED Bay-Delta Program is a three-phased solution process for the development of a long-term comprehensive plan that will restore ecological health and improve water management for beneficial uses of the Bay-Delta system. Phase I, the identification of the range of alternatives, was completed in fall 1996. Phase II was completed on 28 August 2000 with the signing of the Record of Decision (ROD) defining the programmatic plan. Phase III initiated in September 2000 is the first seven years of a 30 year process. As outlined in the ROD, the Corps and the State of California, are co-managers of the CALFED Phase III program element, Levee System integrity, and will provide specific technical and implementation support. Public Law 108-361, enacted 25 October 2004, provides a \$90M authorization for the Corps to achieve 4 objectives: Water Supply Reliability, Levee System Integrity, Water Quality and Ecosystem Restoration. In addition, the Corps, along with other Federal agencies, is an integral part of the technical, regulatory, and synergistic approach to solve this complex and critical water resources and environmental mission that impacts 22 million people and countless fish, wildlife, and habitat assets.

(l) The Lake Tahoe request is \$94,000. 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. Efforts will include active participation in partnership activities, completion of regional hydrology study of Lake Tahoe Basin, program project planning for water quality projects in the Lake Tahoe Basin and program management in conjunction with Federal, state and local agencies.

APPROPRIATION TITLE: Investigations, FY 2007

- 2. Collection and Study of Basic Data
 - a. 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 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 supports planning and implementing actions that reduce the flood hazard through wise use of flood plains. The Flood Plain Management Services Program provides flood hazard information, interpretation, and guidance for sites or short reaches of stream or coast and technical and planning assistance to states, communities and Indian Tribes; develops and disseminates guides and pamphlets to convey the nature of flood hazards and to foster public understanding of the options for dealing with flood hazards; and 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:

Estimated Five-year (FY 2007-2011) Program Cost	\$50,000,000
Allocation Requested for FY 2007	\$5,625,000
Balance to Complete Five-year Program after FY 2007	\$44,375,000
Allocation for FY 2006	\$6,407,000
Change in FY 2007 from FY 2006	-\$717,930
Average Annual Allocation for FY 2002-2006	7,642,600

JUSTIFICATION: The funds requested for FY 2006 are to address the growing number of requests from states, regional and local governments, Indian Tribes, and other non-Federal public agencies. An increase in funds allocation will enable states and local communities to become more involved in the application of flood plain management measures. It will provide them site-specific flood and flood plain data and assistance; assist with efforts to identify flood hazards in smaller 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; 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.

ACCOMPLISHMENTS: Responses to requests from Federal and non-Federal agencies, communities, Indian Tribes and individuals for flood-related information, interpretation, and guidance 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.

APPROPRIATION TITLE: Investigations, FY 2007

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:

Estimated Five-year (FY 2007-2011) Program Cost	\$3,000,000
Allocation Requested for FY 2007	600,000
Balance to Complete Five-year Program after FY 2007	\$2,400,000
Allocation for FY 2006	600,000
Change in FY 2007 from FY 2006	0
Average Annual Allocation for FY 2002-2006	588,000

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 covers only the non-project portion of the cooperative program. To continue the operation of stations of special interest to the Corps, an estimated total of \$16,300,000 will be required by the U.S. Geological Survey during FY 2007, exclusive of funds received from other cooperative sources. The operation and maintenance cost of these stations will be financed from three sources, as follows: (1) \$560,000 appropriated directly to the U.S. Geological Survey for special Corps stations; (2) \$600,000 from this budget item for stations not directly attributed to the Corps projects; and (3) \$15,140,000 from Corps funds budgeted elsewhere for authorized projects and studies. The basic program will remain at the same level as in previous years.

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 \$21.1 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.

APPROPRIATION TITLE: Investigations, FY 2007

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 NWS 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. The Corps transfers funds to the NWS to pay for the work.

SUMMARIZED FINANCIAL DATA:

Estimated Five-Year (FY2007-2011) Program Cost	\$ 1,125,000
Allocation Requested for FY 2007	225,000
Balance to Complete Five-Year Program after FY 2007	900,000
Allocation for FY2006	225,000
Change in FY 2007 from FY2006	0
Average Annual Allocation for FY 2002-2006	278,600

JUSTIFICATION: The scientific services provided by the National Weather Service under this program consist of: (1) review of the meteorological aspects of storm data compiled under the Hydrologic Studies Program conducted by the Corps; (2) precipitation depth-duration-frequency estimates for regions and the nation; (4) development of meteorological parameters pertaining to hurricanes, northeasters and other wind phenomena; and (5) other studies necessary to accomplish the Corps mission. Funds in the amount of \$225,000 will be required in FY 2007 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 2007 will be to complete work on updating precipitation frequency estimates for the State of Hawaii and to commence work on updating the estimates for Alaska and northwestern states. Additionally, the NWS maintains the Precipitation Frequency Data Server web portal and prepares an annual report on nationwide flooding.

ACCOMPLISHMENTS: With limited funding of \$178,000 available in FY05 and \$225,000 in FY06, the NWS completed the update of precipitation frequency estimates for Puerto Rico and the U.S. Virgin Islands and advanced significantly in the State of Hawaii (scheduled for completion in FY06). Also, the Precipitation Frequency Data Server (PFDS) web portal was maintained with high availability. PFDS serviced 52,525 requests for precipitation frequency estimates in FY05. 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: Investigations, FY 2007

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:

Estimated Five-Year (FY 2007-2011) Program Cost	\$1,500,000
Allocation Requested for FY 2007	300,000
Balance to Complete Five-Year Program after FY 2007	1,200,000
Allocation for FY 2006	200,000
Change in FY 2007 from FY 2006	100,000
Average Annual Allocation for FY 2002-2006	352,800

JUSTIFICATION:

The amount requested for FY 2007 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.

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

APPROPRIATION TITLE: Investigations, FY 2007

2. Collection and Study of Basic Data

c. Other Programs

(3) International Waters Studies (continued)

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 2007, 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.

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. 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 2007

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:

Estimated Five-Year (FY 2007-2011) Program Cost	\$ 1,500,000
Allocation Requested for FY 2007	300,000
Balance to Complete Five-Year Program after FY 2007	1,200,000
Allocation for FY 2006	250,000
Change in FY 2007 from FY 2006	50,000
Average Annual Allocation for FY 2002-2006	380,000

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 2007 to work on several storm studies. Storm data gathered in study of the storms occurring in FY 2005 and 2006 in the Manoa Valley in Hawaii that feeds into the Ala Wai Canal over the Big Island of Hawaii will be input into numerical hydrological programs to develop models critical to flood damage reduction studies in Hawaii. These studies have been ongoing since 1995.

APPROPRIATION TITLE: Investigations, FY 2007

2. Collection and Study of Basic Data

c. Other Programs

(4) Hydrologic Studies (continued)

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 \$150,000 in FY 2007 will be required to continue this sub-item at a level to insure proper and orderly progress.

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. The Hydraulics Laboratory, Waterways Experiment Station is sponsored by the Federal Interagency Sedimentation Committee (members from 18 agencies) and constitutes the major work effort under this sub-item. Funds in the amount of \$50,000 in FY 2007 will be required to support the Federal Interagency Sedimentation Project (FISP) located at the Waterways Experiment Station.

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 2007 is required to continue the establishment and operation of these special-purpose gages, and to determine historical flooding in urban sites.

APPROPRIATION TITLE: Investigations, FY 2007

2. Collection and Study of Basic Data

c. Other Programs

(4) Hydrologic Studies (continued)

1. Storm Studies: During the period, Corps offices have gathered data on other 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. Work was completed on the regional frequency studies for Puerto Rico and continued in the Hawaii river basins. Significant work was also accomplished in assessing the effects of debris in hydrological modeling, particularly in the fire-prone western states.

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. Recent improvements in the gaging network in Hawaii enabled the Corps to capture key data from two significant storm events in 2005.

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 2007

2. Collection and Study of Basic Data

c. Other Programs

(5) 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 Corp of Engineers and other activities in the U.S. and abroad.

SUMMARIZED FINANCIAL DATA:

Estimated Five-Year (FY 2007-2011) Program Cost	\$ 400,000
Allocation Requested for FY 2007	50,000
Balance to Complete Five-Year Program After FY 2007	350,000
Allocation for FY 2006	78,000
Change in FY 2007 from FY 2006	-28,000
Average Annual Allocation for FY 2002-2006	\$91,200

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.

APPROPRIATION TITLE: Investigations, FY 2007

2. Collection and Study of Basic Data

c. Other Programs

(5) Scientific and Technical Information Centers (Continued)

ACTIVITY IN FY 2007:

The Corps of Engineers will continue to make major use of the World Wide Web (WWW) for technology transfer. The WWW is widely accessible by both the public and private sectors and provides rapid transfer, at significant cost savings, of technical data, bulletins, general information on ongoing studies, technical notes, and ultimately technical reports. The information centers and their host laboratories are now maintaining WWW homepages with links to other related homepages. Recent establishment of internal networks, as well as a Corps-wide network, along with connection to the Internet, has provided a major leap forward in communications at a significant reduction in transmittal costs. Several thousand technical inquiries are received annually, with the Internet playing an increasingly major role. Inquiries are received from Federal, state, and local government activities, universities, private sector engineers and scientists, and concerned citizens.

<u>Technical Field</u>	<u>Subjects</u>
Coastal Engineering	Wave data and predictions, shore processes, inlet dynamics, navigation channels and structures, harbors, and coastal construction
Cold Regions Engineering	Ice engineering, meteorology, climatology, geophysics, geology, remote sensing, environmental engineering
Concrete Technology	Cements, concrete, aggregates, concrete construction, concrete repair and rehabilitation technology
Hydraulic Engineering	Hydraulic, hydrologic, water resources, and sedimentation of streams, rivers, waterways, reservoirs and natural impoundments; estuaries, inland and coastal groundwater; fishery systems; and hydraulic structures of all types
Soil Mechanics	Embankment and foundation engineering, earthquake engineering, engineering geology, and rock mechanics

APPROPRIATION TITLE: Investigations, FY 2007

2. Collection and Study of Basic Data

c. Other Programs

(5) Scientific and Technical Information Centers (Continued)

<u>Information Analysis Centers</u>	<u>FY 2007</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. WWW 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, FY 2007

2. Collection and Study of Basic Data

c. Other Programs

(6) Coastal Field Data Collection

SCOPE:

This nationwide program is designed to systematically measure, analyze and assemble information required to accomplish the Corps mission in coastal navigation and storm damage reduction. This program also provides the Corps contribution to the interagency *Integrated Ocean Observing System (IOOS)* as defined by the Administration's Ocean Action Plan. Collected data directly support comprehensive project activities including regional and local planning, research, design, construction, operation, and maintenance. These activities require long-term regional data that encompasses winds, waves, currents, water levels, bottom configuration, sediment characteristics, geomorphologic and environmental data. In particular, wave data are the key design parameter for coastal projects. For example, a 20% error in wave height leads to over a 70% difference in stone size for navigation structures. If the error in wave height leads to over specifying stone size, the construction costs are much higher than necessary. If stone size is too small, structures fail or have unnecessary life-cycle repair costs. With 800 navigation projects to maintain and repair (25% are more than 50-years old), cost attributable to having insufficient data would be significant. These data are either unavailable, are of uncertain quality, or are too sparsely distributed temporally and/or spatially to have statistical value. The required data are regional in nature and not properly chargeable to authorized projects. Sufficient time is not available prior to or during project planning and construction to accumulate the years of base-line data necessary for adequate assessment of technical, economic, and environmental feasibility. Acquisition and use of the information will be accomplished through concurrent and complementary sub-items, each either contributing certain critical data or making use of the collected data. The sub-items are: (1) Wave Information Studies; (2) Field Wave Gauging; (3) Field Research Facility Measurements; (4) Participation in Ocean.US and the IOOS, (5) Southern California Beach Processes Study, (6) the Pacific Islands Land Ocean Typhoon (PILOT) experiment which provides data to (7) the Surge Wave Island Modeling Studies (SWIMS), (8) Evaluation of Shore Protection Projects.

For FY07 emphasis is placed on sub-items 1, 2, and 3 as described below.

JUSTIFICATION:

1. Wave Information Studies (WIS). Corps coastal projects require long-term wave climatologies for design. In this activity, numerical simulation techniques are used to estimate 20 years of consistent, accurate directional wave climatologies from weather information for the nation's ocean and Great Lakes coastline. Most historic wave gauge data are non-directional and consequently of limited use to coastal projects. This information is paramount to the functional/structural design and economic evaluation and performance of coastal navigation projects and of fundamental use to coastal Regional Sediment Management (RSM) studies. Additionally, detailed wind information is produced. These data are made available to Corps of Engineers Districts and the public via interactive web access (<http://frf.usace.army.mil/wis/>). From user feedback, these are extremely important data to Corps users and are often the only wave data available. The models and technology developed by this program are also applied in post-storm assessments such as conducted following hurricanes Katrina in 2005, Isabel in 2003 and the hurricanes of 2004. Once the 20-year database is complete, it will be updated annually. For FY07, \$220k will be applied to this effort.

APPROPRIATION TITLE: Investigations, FY 2007

2. Collection and Study of Basic Data

c. Other Programs

(6) Coastal Field Data Collection

2. Field Wave Gauging (FWG). This is the only program providing high-quality shallow-water observed wave data nationwide. It is the primary Corps contribution to the *Integrated Ocean Observing System* (IOOS) as outlined by the Administration's Ocean Action Plan, in response to the President's Commission on Ocean Policy in 2004. Wave observations are required to predict harbor shoaling, harbor oscillation, jetty stabilization and are imperative for operational guidance of dredging, navigation, maintenance, and emergency operations. High quality, directional wave observations are required for the implementation of Regional Sediment Management strategies and the design of beach protection projects. Gauging efforts are coordinated with the National Data Buoy Center (NDBC) of the National Oceanic and Atmospheric Administration (NOAA), and with the Coastal Data Information Program (CDIP) operated by the Scripps Institution of Oceanography through the State of California (<http://cdip.ucsd.edu>). Upon acquisition, the data are analyzed and made available online in real-time to the Corps, our partners and the public. Nearshore gauging is conducted cooperatively through agreements with other states and agencies and regional observing systems. In FY06 this sub-item supported directional sensors in 15 NDBC buoys and partially or fully supported 24 nearshore gauges. Observations are currently concentrated on the west coast. The long-term goal for this effort is to expand the program to provide coverage over large reaches of coast where observations are urgently needed on the East and Gulf Coasts and Great Lakes. For example, there were no deepwater directional wave measurements along the east coast of Florida during the 2004 hurricanes which could have been used to alert CE 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 has hampered the post-Katrina diagnostic efforts. For FY07, \$200k will be applied to this effort.

3. Field Research Facility (FRF) Measurements. Critical to measuring, analyzing and providing useful coastal data products for Corps Districts is the collection of intensive, long-term, high-resolution data for improving project design and performance. The Field Research Facility in Duck, North Carolina (<http://frf.usace.army.mil/>), is a unique real-world coastal facility that collects a comprehensive measure of wave, current, meteorological, bathymetric, and topographic data, unavailable at any 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 such as SandyDuck, and collect spatially and temporally intensive long-term measurements required to better understand complex coastal processes. These data are made available online and in real time to engineers and scientists in the Corps, other agencies, 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 also are crucial for evaluating and improving the data products produced by other program sub-items. As a unique coastal observatory, the FRF is a significant Corps contribution to the Integrated Ocean Observing System (IOOS). For FY07, funds in the amount of \$890k will be applied to this effort.

4. Participation in the Integrated Ocean Observing Program. This sub-item supports the Corps participation in the IOOS through support of Ocean.US, the interagency office for Ocean observation (<http://ocean.us>). The Corps is a signature member of the Ocean.US MOU. Other participating agencies are Navy, NASA, NSF, NOAA, USGS, EPA, OSTP, Homeland Security, MMS. Through this sub-item, the Corps financially supports the operational budget of Ocean.US and participates in workshops and meetings to insure that the IOOS is serving Corps requirements and that Corps districts and divisions are both contributing to, and benefiting from the IOOS. The IOOS will result in a wide range of new real-time coastal data being made available to Corps users and partners for use in planning, operations, and emergency response. For FY07, \$30k will be applied to this important national effort.

APPROPRIATION TITLE: Investigations, FY 2007

2. Collection and Study of Basic Data

c. Other Programs

(6) Coastal Field Data Collection

5. Southern California Beach Processes Study (SCPBS). Planning for Regional Sediment Management (RSM) activities (shoreline protection, beach maintenance, coastal inlet dredging and related engineering activities) requires an understanding of the coastal processes and sediment budget over regions extending tens of miles up and down coast. In this task coastal processes will be monitored along a 110-mile-long littoral cell extending from the Mexican border to Long Beach in Southern California (<http://cdip.ucsd.edu/SCBPS/homepage.shtml>), with concentration on the reach between Dana Point and La Jolla. This unique populous region is characterized by narrow continental shelves, swell-dominated wave climates and cliff-backed beaches. Though environmentally and economically important, there are few data in existence that document long-, and short-term changes to the area. Monitoring activities involves semi-annual airborne Lidar mapping and other techniques for determining seasonal beach and cliff variation combined with wave measurements (collected under the FWG sub-item) and modeling to quantify the impact of coastal storms and El Nino events over multiple years. Lidar mapping has proven to be of significant value in the study of recent coastal hurricane impacts, and this study is providing a unique complement to East and Gulf coast data. The comprehensive nature of this monitoring, permit an analysis of the potential risk associated with the use of a less-comprehensive monitoring program for application to other regions of the country. This effort will contribute new findings and insight to ongoing RSM research activities. For FY07, \$15k will be applied to this effort.

6. Pacific Islands Land Ocean Typhoon (PILOT) Experiment. Tropical cyclones and hurricanes affect Pacific and Caribbean islands differently than the continental United States. Consequently, existing forecast models, intensity scales, and design tools for cyclones are inappropriate or unproven for use in the islands. The objective of this effort is to provide quality and timely data required to more accurately document characteristic cyclonic activity in the islands. The objectives specifically address requirements developed by the Corps' Island Task Force. A unique series of measurements are being made across reefs by the Corps in partnership with the University of Hawaii and the Scripps Institution of Oceanography, on both the Island of Guam, because of its high likelihood of typhoon passage, and also in Hawaii. This sub-item takes advantage of the expertise available in other program sub-items and collected data will support the IOOS. For FY07, \$30k will be applied to this effort.

7. Surge Wave Island Modeling Studies (SWIMS). This sub-item is designed to develop a numerical model appropriate for typhoon surge simulation and forecast in the islands. Typically, islands are mountainous with narrow coasts and a reef shield that offers protection from storm waves. However, typhoons can greatly raise water levels and waves resulting in coastal inundation, damage, and loss of life. Methodologies for analyzing hurricane/typhoon waves and their interaction with island coasts, including fringing coral reefs, have not received attention commensurate with the importance and complexity of the processes. A next generation island coastal storm surge and wave model will be developed using data collected under the PILOT sub-item. The model will also be applied and evaluated for longer, irregular reaches of coastline, using coastal inundation data on Kauai after Hurricane Iniki and with data from physical hydraulic model tests. Once developed, the modeling methodology will be applied initially to selected Hawaiian Island sites with exceptional importance for coastal inundation planning. For FY07, \$10k will be applied to this effort.

APPROPRIATION TITLE: Investigations, FY 2007

2. Collection and Study of Basic Data

c. Other Programs

(6) Coastal Field Data Collection

8. Performance of Shore Protection Projects. The objective of this task is to improve future shore protection projects through evaluating the performance of existing projects, and through augmenting the field monitoring programs of selected new projects. Existing projects will be examined for their physical, economic, and benefit performance. In particular, the success in the use of modern modeling tools and monitoring techniques for developing shore protection project designs will be examined. Evaluation tools and design improvement recommendations will be developed. Project summaries including surveys, specs, and performance data will be collected and made available via the Internet. Standardized web templates for migrating project information to the web will be developed. This effort will maximize the use of existing project performance data and directly respond to district requirements for tools and techniques to analyze performance data. This program will also benefit from the Hurricane impact assessments done following Hurricane Isabel in 2004, the Florida hurricanes of 2004, and Hurricane Katrina in 2005. For FY07, \$5k is requested to keep this sub-item in the program.

SUMMARIZED FINANCIAL DATA:

<u>PROGRAM ITEM</u>	<u>FY07</u>
1. Wave Information Study	220,000
2. Field Wave Gauging	200,000
3. Field Research Facility	890,000
4. Participation in the National Ocean Observing System	30,000
5. Southern California Beach Profile Study	15,000
6. Pacific Islands Land Ocean Typhoon (PILOT) experiment	30,000
7. Surge Wave Island Modeling Studies (SWIMS)	10,000
8. Performance of Shore Protection Projects	<u>5,000</u>
Total	1,400,000

APPROPRIATION TITLE: Investigations, FY 2007

2. Collection and Study of Basic Data

c. Other Programs (continued)

(7) Transportation Systems

SCOPE: The Transportation Systems Program supports USACE Corps Districts and Headquarters personnel in accomplishing their navigation project planning and evaluation responsibilities through the provision of integral information components and technical support. The process of planning improvements for waterway system and harbor navigation projects necessitates consideration of needs, opportunities, benefits, and economic costs associated with placement of project improvements within the context of the project-specific areas as well as within context of the overall national transportation system. The Transportation Systems Program is managed by CECW-P and technically supported by CEIWR and is a continuous, on-going effort to ensure the development of viable and practical analytical techniques, sources of information, tools and methods; the development of deep draft and shallow draft vessel operating and replacement cost data which can be applied by District offices; the 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 and relevant areas of the NETS Program; and the provision of technical services and support to District and Division offices and Headquarters personnel. The goals of the Transportation System Program are as follows: (1) to improve the technical quality and accuracy of navigation planning studies as well as provide for consistency in analytical procedures and technical basis for review across the wide array of planning conditions encountered by District personnel; (2) to improve the strategic planning of navigation system(s) improvements; and (3) to reduce the costs of analysis, planning, and operation of waterborne navigation systems. These goals are accomplished by providing District and headquarters analysts with useful and consistent information, analytical tools, and procedures which result in end products which reflect responsible and prudent investment of Federal civil works funds.

SUMMARIZED FINANCIAL DATA:

Estimated Five-Year (FY 2007-2011) Program Cost	\$ 2,490,000
Allocation Requested for FY 2007	350,000
Balance to Complete Five-Year Program after FY 2007	2,140,000
Allocation for FY 2006	375,000
Change in FY 2007 from FY 2006	-25,000
Average Annual Allocation for FY2002-FY2006	\$490,000

APPROPRIATION TITLE: Investigations, FY 2007

2. Collection and Study of Basic Data

c. Other Programs

(7) Transportation Systems (continued)

JUSTIFICATION: The \$350,000 requested in FY 2007 for Transportation Systems would be used to update models and analyses used for planning and evaluation of ports, harbors, coastal waterways, inland waterway systems, and maintenance or modernization of planning methods and associated computer models to support District navigation studies nationwide. Funds would 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; to continue to develop and provide commodity and fleet forecasts of waterborne traffic for deep and shallow draft navigation projects from recognized industry forecasting sources, update deep draft vessel characteristics for use by Corps field planners; provide rail, barge and truck models for use in estimating origin-destination transportation cost savings attributable to Corps projects; and to provide consulting and technical support services to Corps District and Division offices.

ACCOMPLISHMENTS: FY 2005 accomplishments are: Limited update and revision of FY 04 shallow and deep-draft vessel operating costs; updated fuel costs with posting to HQUSACE Homepage; completed an update of vessel characteristics for ocean-going barge costs; initial activities for drafting a deep-draft vessel operating cost applications manual; secured and distributed information from Global Insight, Sparks Companies, and REEBIE Transportation models; updated the barge, rail and truck transportation models; and completed a draft form of the desktop tidal delay model.

ACTIVITIES FOR FY2006: FY2006 funds will be used to comprehensively update and publish deep-draft and inland vessel operating costs; update fuel costs; obtain world trade and commodity flow forecasts (Trade Navigator); update and distribute subscription materials from Global Insight, Sparks\Informa Companies, and acquisition of databases from Lloyd's Register of Shipping and the REEBIE transportation models.

APPROPRIATION TITLE: Investigations, FY 2007

2. Collection and Study of Basic Data

c. Other Programs

(8) Environmental Data Studies

JUSTIFICATION: The Environmental Data Studies Program request is \$50,000. 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 2005:

Improved initial prototype of the Environmental Database System (EDS). 105 CAP (Section 1103, 1135, 204, etc.) reports have been reviewed and entered in the database. EDS-Encyclopedia, accessible through the same address is a research tool for those engaged in environmental studies.

OBJECTIVES FOR FISCAL YEAR 2006:

1. Review, and as necessary, re-scope the functions, application and structure of the database. Continue quality control for data already entered.
2. Query field practitioners as to how the database can serve their needs.
3. Design a strategy to track mitigation for environmental impacts from Corps projects.
4. Establish stronger linkages between database content and needs of the performance-based budgeting process.
5. Continue to maintain, add and rate websites in Encyclopedia.

APPROPRIATION TITLE: Investigations, FY 2007

2. Collection and Study of Basic Data

c. Other Programs

(9) 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 Cold Regions Research and Engineering Laboratory (CRREL) through its Remote Sensing/Geographic Information Systems (GIS) Center of Expertise.

SUMMARIZED FINANCIAL DATA:

Estimated Five-Year (FY2007-2011) Program Cost	\$1,500,000
Appropriation Requested for FY 2007	\$150,000
Balance to Complete Five-Year Program after FY2007	\$1,350,000
Appropriation for FY 2006	\$152,000
Change in FY 2007 from FY 2006	2,000
Average Annual Allocation for FY2002-FY2006	\$200,800

JUSTIFICATION:

The Remote Sensing/GIS Center is the Corps' Center of Expertise for Civil Works Remote Sensing and GIS technologies, providing mission essential support as part of the USACE 2012 organization. Through centralized management of this function, the Center provides cost-effective 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 Corps, government, the private sector, and academia assures that state-of-the-art and state-of-the-practice knowledge of evolving trends that are important are available for the Corps 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 system wide land and water resources management including: regional sediment management, regional water management, and ecosystem processes and assessment; basin studies; water control; support to emergency management; and compliance with the attendant environmental regulations and related policies. The Center maintains cognizance of state-of-the-art sensors, data collection, analysis, and storage systems, commercial software, and bridging software that integrates these and operational technologies into the Corps divisions, districts, and other agencies' activities. Technology is transferred through telephone and short, no cost assistance to the field. 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. White papers, pilot projects, Corps and other publications, including Engineering Letters, Circulars, and Manuals, and the Internet, also are used to transfer procedures and lessons learned to end users.

APPROPRIATION TITLE: Investigations, FY 2007

2. Collection and Study of Basic Data
 - c. Other Programs
 - (9) Remote Sensing Systems Support (continued)

ACCOMPLISHMENTS IN FY 2006:

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 Corps' Geospatial Community of Practice (COP) and provided leadership to the remote sensing, hydrology and hydraulics, and emergency sub-COPs.
3. Continued technology transfer through training courses, briefings, development of distance learning, technical papers, technical demonstrations, pilot programs, and conferences.
4. Supported one-stop service requests from Corps districts and divisions.
5. Assisted with review of GIS performance during disasters through participation in the Remedial Action Program, joint USACE-FEMA Forum, and regional geospatial review.
6. Provided leadership and technical support to strategic and enterprise USACE geospatial initiatives: System Wide Water Resources Program; Levee Database development; Readiness XXI Technology Transfer Program Management Team; Geospatial Operations and Maintenance Business Interlink (gORM) team member; Emergency Management Remote Sensing, GIS, and Modeling Group; and Hydrology and Hydraulics modeling software development and support team member.
9. Sponsored and participated in program development of national and international remote sensing and GIS conferences.
10. Update of the PROSPECT Introductory and Intermediate GIS courses.
11. Participated in the technical development of the Missouri River Program.
12. Provided technical support to Corps District offices for the development of implementation plans for Geospatial data management including development enterprise geospatial data approaches.
13. Participated in National Academy of Science Geospatial study of the uses of remote sensing and GIS for emergency management.
14. Provided ad hoc mapping functions for HQUSACE

APPROPRIATION TITLE: Investigations, FY 2007

2. Collection and Study of Basic Data
 - c. Other Programs
 - (9) Remote Sensing Systems Support (continued)

PROJECTED ACCOMPLISHMENTS IN FY 2007:

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 Corps' Geospatial Community of Practice (COP) and provided leadership to the remote sensing, hydrology and hydraulics, and emergency sub-COPs.
3. Continued technology transfer through training courses, briefings, distance learning, technical papers, technical demonstrations, pilot programs, conferences, the internet and knowledge management portals.
4. Supported one-stop service requests from Corps districts and divisions.
5. Provided leadership and technical support to strategic and enterprise USACE geospatial initiatives: System Wide Water Resources Program, Missouri River Program; Readiness XXI Technology Transfer Program Management Team; Emergency Management Remedial Action Program; Geospatial Operations and Maintenance Business Interlink (gORM) team member; and Hydrology and Hydraulics modeling software development and support team member.
6. Sponsored and participated in program development of national and international remote sensing and GIS conferences.
7. Major update of PROSPECT Remote Sensing course.
8. Supported content development for USACE knowledge portals.
9. Provided technical support to Corps District offices for the development of implementation plans for Geospatial data management including development of enterprise geospatial data approaches.
10. Provided Emergency Management training and support to HQUSACE.
11. Provided ad-hoc mapping functions for HQUSACE

APPROPRIATION TITLE: Investigations, FY 2007

2. Collection and Study of Basic Data

c. Other Programs

(10) Automated Information Systems Support - Tri-Service CADD/GIS Technology Center

SCOPE: This effort provides technical support to engineers and scientists utilizing BIM, CADD, GIS, and facility management technologies in the planning, design, construction, operation and maintenance of Corps projects. As there is no way of calculating the benefits which individual districts/projects receive from the CADD/GIS Center, the Corps does not propose to charge projects and programs for the Civil Works share of its maintenance costs.

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.

For FY 2006, the OMA funding portion was \$2,090,000. The Civil Works portion was \$398,000, the Naval Facilities Engineering Command portion was \$250,000, the Air Force Civil Engineer Command portion was \$100,000, and the U.S. Marine Corps portion was \$100,000 for a total of \$2,938,000. The \$600,000 requested for FY 2007 for the Civil Works portion will support approximately 1,000 workstations and 2,000 users of CADD/GIS technologies for Civil Works Projects.

SUMMARIZED FINANCIAL DATA:

Estimated Five-Year (FY 2007-2011) Program Cost	\$3,000,000
Allocation Requested for FY 2007	350,000
Balance to Complete Five-Year Program After FY 2007	2,650,000
Allocation for FY 2006	402,000
Change in FY 2007 from FY 2006	52,000
Average Annual Allocation for FY 2002-2006	\$470,800

JUSTIFICATION: All Corps districts use BIM, CADD and GIS computer systems for Civil Works engineering, design, mapping, planning, and facility management. All engineering drafting tables have been replaced with CADD 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

APPROPRIATION TITLE: Investigations, FY 2007

2. Collection and Study of Basic Data

d. Other Programs

(10) Automated Information Systems Support - Tri-Service CADD/GIS Technology Center (continued)

Corps offices have the ability to exchange their work among themselves and with others, including the private sector. The Center is actively coordinating its CADD standards 3.0. with the National Institute of Building Sciences and has created a National CADD 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, CADD and GIS by coordinating development efforts and distributing end products to Corps offices. The BIM, CADD 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, CADD and GIS software.

ACCOMPLISHMENTS IN FY 2006:

1. Release 4.0 of the A/E/C CADD Standard (both document and software tools) was released on CD-ROM and via the web. This release was distributed by several software vendors as part of their application (e.g. ProSoft). Software updates to implementation applications were incorporated in the new release. The A/E/C CADD Standards content was revised to make it compatible with Version 4.0 of the National CAD Standard. Requirements for Building Information Model Standards (BIM) were developed and incorporated in Release 4.0. 8 on-site implementation/training classes were taught across DoD to support user implementations. All the Center's web based training courses were also updated and made available free of charge to DoD users.

2. The GIS Spatial Data Standard for Facilities, Infrastructure, and Environment (SDSFIE) Release 4.0 was completed. The SDSFIE included continued development of the GIS data standards for Airfields, Range and Training, and a continuation of FY05 Levee activities. These activities provide a common data format for the development of GIS on civil works projects, thereby cutting costs and allowing sharing of data sets among government agencies and the private sector. Data sets and symbology sets were enhanced to analyze data more quickly and facilitate data sharing and upward reporting. Electronic tools were developed and enhanced to facilitate the construction of GIS datasets for various GIS vendor products (e.g. Intergraph's GeoMedia and ESRI's ArcGIS). 8 SDSFIE implementation training courses were taught across DoD to support users in the use of GIS data standards. Standards Workgroup Assistance Teams were sent to selected sites to assist the users with implementations.

3. The Center administers the Enterprise License Agreement (ELA) it negotiated with Bentley Systems Inc. on behalf of the US Army Corps of Engineers in late CY2005. The ELA provides access to all of Bentley's software applications and meets the Corps' Science and Engineering Technology program goal to reduce software acquisition costs.

APPROPRIATION TITLE: Investigations, FY 2007

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; and, (4) develop and maintain a floodplain inventory application that would be used to apply flood damage estimation models to feasibility, reconnaissance, and continuing authority studies.

SUMMARIZED FINANCIAL DATA:

Estimated Five-Year (FY 2007-2011) Program Costs	\$3,500,000
Allocation Requested for FY 2007	220,000
Balance to Complete Five-Year Program after FY 2007	3,280,000
Allocation for FY 2006	\$248,000
Change in FY 2007 from FY 2006	-\$28,000
Average Annual Allocation for FY 2002-2006	\$299,200

JUSTIFICATION: The \$220,000 requested in FY 2007 for Flood Damage Data would be used to develop and maintain data collection survey forms and data collection techniques, to collect post-flood damage data, to employ the flood damage database to estimate a National model where regional or local flood characteristics can be specified to estimate flood damage relationships, to update and maintain a computer application for applying flood damage models to floodplain inventory data, and to develop generic business flood damage relationships. Funds would be used to monitor data collection, to collect damage data for riverine and coastal flood events, and data analysis and the development of generic damage relationships, including associated flooding costs which might be appropriate to National Economic Development procedures, and to test the effectiveness of flood warning and flood proofing procedures. Funds would also be used to enhance a website to share results of the analysis.

APPROPRIATION TITLE: Investigations, FY 2007

2. Collections and Study of Basic Data

c. Other Programs

(11) Flood Damage Data Program (continued)

ACCOMPLISHMENTS:

1. Flood damage surveys, using material from OMB-approved questionnaires have been developed, reviewed, and pre-tested.
2. Data collection techniques and data tabulation procedures have been developed. Data collection procedures have been documented in a primer for Corps field personnel and contractors.
3. Over 2,200 residential surveys and approximately 1,400 nonresidential surveys have been completed for properties in 19 states. A database has been created from these surveys and analysis is continuing. Several reports have been issued documenting the case studies and damage function computation.
4. Generic residential content and structure damage functions have been released for single-family homes.
5. Generic business structure damage functions and vehicle damage functions have been computed and documented.
6. A research design report has been completed for further development of risk-based damage function calculation, using additional data from building industry component costs models and data collected as part of this program.
7. A residential depth-damage function application has been released for Corps-wide use. The application will be used to determine the depth-damage relationships based on building characteristics and county-specific building costs. The model has incorporated structure and content estimation and structure and content damage for a comprehensive array of structure types, foundation types, exterior building material, quality, and period of construction. The model has been released to Corps districts for integration with the HEC-Flood Damage Analysis Package for evaluation of flood damage reduction benefits. Training for the use of the model has been conducted for Corps districts and MSC's at regional workshops.
8. A review of potential methodologies and data sources for estimating flood damage to roads has been completed. A preliminary model for estimating flood damage to roads has been released and field-tested. The model has been peer reviewed by district economists. A guide for use of the model has been developed along with a guide to applying hydrologic and road information.
9. Approximately 300 records have been collected on homes that have suffered coastal flood damage.
10. A research design report has been completed for further development of risk-based damage function modeling for coastal storm damage.

APPROPRIATION TITLE: Investigations, FY 2007

3. 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 divisions and district input, and the existing WRDA authorities. The R&D effort is a problem-solving process by which the Corps systematically examines new ideas, approaches, and techniques and develops field-ready products. The request for \$15,200,000 of Investigations funds for the FY 2007 program includes funds for the following highest priority R&D efforts: \$1,000,000 for Environmental Benefits Assessment; \$1,675,000 for Navigation Economic Technologies (NETS) and \$1,590,000 for Facility Condition Indexing, distributed within the Navigation and the Flood and Coastal Storm Damage Reduction research areas, to support the goal of completing and applying these important performance-based asset management tools to all Civil Works programs and business lines within two years.

Results of the Corps' GI R&D effort 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, 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.

The Corps is currently developing facility condition index tools for Navigation, Flood Damage Reduction, Recreation, and Hydropower projects. The progress and status of the business lines in developing these tools varies. Some work has been undertaken through Research and Development programs and focused on performance-based budgeting efforts. The recreation program managers have developed a web-based condition indexing tool as part of its RECBEST budgeting process. The hydropower business line has begun to implement HydroAMP, an interagency effort focusing on various component condition index tools. The navigation business line has focused on lock and dam condition evaluations and coastal structures asset management decision tools. The flood and coastal storm damage reduction program has risk and uncertainty and dam safety risk assessment portfolio R&D efforts focused on developing probabilistic models for quantifying seepage and piping, reliability of gates and other operating components, and uncertainties for breaching parameters of embankment dams. The FY 2007 Budget supports continued development of these and other analytical decision-making tools, with the goal of refining and applying these tools to all Corps business lines within two years

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

APPROPRIATION TITLE: Investigations, FY 2007

Environmental Laboratory, Vicksburg, MS
Geotechnical & Structures Laboratory, Vicksburg, MS
Information Technology Laboratory, Vicksburg, MS
Topographic Engineering Center, Alexandria, VA.

The IWR is located at Fort Belvoir, VA, and its Hydrologic Engineering Center (HEC) at Davis, CA. Policy guidance and executive oversight are provided by the Civil Works R&D Steering Committee comprised of Deputy Director of Civil Works, CW division chiefs, and the Director of Research and Development. 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.

APPROPRIATION TITLE: Investigations, FY 2007

3. Research and Development

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.

SUMMARIZED FINANCIAL DATA:

Estimated Five Year (FY 2007 - FY 2011) Program Cost	\$103,200,000
Allocation Requested for FY 2007	15,200,000
Balance to Complete Five Year Program after FY 2007	88,000,000
Allocation for FY 2006	22,000,000
Change in FY 2007 from FY 2006	-6,800
Average Annual Allocation for FY 2001-FY 2006	22,000,000

The proposed FY 2007 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. System Wide Water Resources

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 operation and

APPROPRIATION TITLE: Investigations, FY 2007

maintenance, rehabilitation and replacement funding. The FY 2007 Budget requests \$1.1 million in R&D funding (of which \$300,000 is funded under the Coastal Inlets Research program) for development of these important analytical tools, including the following:

- 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.

3. Research and Development

Flood and Coastal Storm Damage Reduction, Emergency Management, Water Supply, and Recreation

Corps projects across the Nation prevent flooding and 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;
- creates new solutions to challenging engineering problems in building, maintaining, upgrading, and operating the Nation's water resources infrastructure such as dams, locks, spillways, and channels; and
- provides guidance and tools to understand the natural setting of water resource projects, to incorporate environmental & economic objectives, to assess alternative solutions, and to make optimal decisions.

The technological requirements for achieving these R&D goals vary by business line and mission. Improved condition indexing of Flood and Coastal Storm Damage Reduction facilities includes developing and applying technologies for risk-based evaluation of structural components such as dams, gates, levees, dunes, dikes, and walls. This work will be conducted under the National Dam Safety - Portfolio Risk Assessment and the National Flood Project Inventory Programs. Advancements in understanding the role of geotechnical properties, hydrodynamic loading, material fatigue, structure aging, and life-cycle O&M in contributing to dam and flood management safety, performance, and reliability will be achieved through those two programs. The results of the inventory will be coupled with improved methodologies for project inspection and condition evaluation. The technological requirements of emergency management are aimed at achieving more rigorous planning and preparedness and more efficient and effective response and recovery.

Environmental (including Regulatory)

The Corps has ecosystem restoration and environmental stewardship & 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 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

APPROPRIATION TITLE: Investigations, FY 2007

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 Evaluation, Restoration, Environmental Stewardship and Management. Products are concise, how-to guidance documents that provide rapid/low-cost technologies and methods for high priority field needs. This technology is critical to the success of the Corps' Continuing Authorities Program (CAP) as well as larger GI-funded projects.

System Wide Water Resources

The goal of System-Wide Water Resources R&D is to provide the Corps of Engineers and its partners the 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. 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, geomorphology, chemistry, ecology, and socioeconomic. Capabilities will be served via a seamless, integrated architecture allowing projects to be considered at multiple scales during project planning, design, construction, operation, and maintenance. Current R&D emphasis in this area is on urban flood damage reduction and stream restoration technologies, regional sediment management, aquatic ecosystem management, assessment and restoration technologies, and regional and corporate frameworks for data collection, management and analysis. Each of these efforts is being pursued through extensive partnering and collaboration with federal and state resource management agencies, academia, and the private sector.

3. Research and Development

PROJECTED CIVIL WORKS R&D FUNDING ALLOCATIONS (FY 06-07))

<u>BY RESEARCH AREA</u>	<u>FY 2006 ALLOCATION</u>	<u>FY 2007 TENTATIVE ALLOCATION</u>
a. Navigation (including Hydropower)	\$ 6,700,000	\$ 4,500,000
b. Flood and Coastal Storm Damage Reduction; Emergency Management; Water Supply; and Recreation)	\$ 4,500,000	\$ 3,000,000
c. Environmental (including Regulatory)	\$ 1,700,000	\$ 2,000,000
d. System Wide Water Resources	\$ 9,100,000	\$ 5,700,000
	<u>\$22,000,000</u>	<u>\$15,200,000</u>

APPROPRIATION TITLE: Investigations, FY 2007

<u>BY CW BUSINESS LINE</u>	<u>FY 2006 ALLOCATION</u>	<u>FY 2007 TENTATIVE ALLOCATION</u>
a. Navigation	\$ 8,300,000	\$ 5,700,000
b. Flood & Coastal Storm Damage Reduction	\$ 8,000,000	\$ 5,500,000
c. Environmental	\$ 5,700,000	\$ 4,000,000
	<u>\$22,000,000</u>	<u>\$15,200,000</u>

3. Research and Development

a. Commercial Navigation

SUMMARIZED FINANCIAL DATA:

Estimated Five-Year (FY 2007-2011) Program Cost	\$31,430,000
Allocation Requested for FY 2007	4,500,000
Balance to Complete After FY 2007	26,930,000
Allocation for FY 2006	6,700,000
Change in FY 2007 from FY 2006	-2,200,000

JUSTIFICATION:

The Corps' commercial navigation mission facilitates commercial 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' 240+ lock sites 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 the economics and effects of alternative plans for projects and to

APPROPRIATION TITLE: Investigations, FY 2007

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, economics, and environmental aspects are integrated in the development of processes and design models, economic models and decision support software, infrastructure condition assessment techniques, and economic and risk analysis frameworks, infrastructure and design guidance, and innovative monitoring, operation and maintenance technologies.

Navigation area economic R&D provides the framework and analytical tools that are key to quantifying problems, evaluating alternative competing solutions, and making informed investment decisions. Risk analysis provides a framework for organizing and quantifying underlying uncertainties in and management of existing facilities. Navigation Economic Technologies (NETS) provides enhanced and standardized evaluation tools and methods for shallow and deep draft navigation project life-cycle analyses. Peer reviewed procedures will be developed to improve traffic forecasts, economic benefits, and uncertainties in major improvement projects.

3. Research and Development

a. Commercial Navigation (continued)

FY 2007 ACTIVITY:

- Develop deep draft version of HarborSym navigation investment model
- Develop proof of concept Regional Routing Model with focus on the Columbia River
- Develop beta version Navigation System Simulation (NaSS) model
- Estimate shipper response curves (elasticity) for Ohio River coal and other commodities
- Estimate shipper response curves (elasticity) for Upper Miss grain and other commodities
- Incorporate shipper response into ORNIM suite of tools
- Improve ship simulations for optimum design of wider channels to accommodate larger vessels
- Develop risk-based methodology to assess and predict scour protection performance, reducing likelihood of navigation dam failures
- Improve decision making and investment strategy by assessing engineering reliability of foundations at locks.
- Evaluate concrete repair technology for cost-effective application to navigation structures with reduced impacts on navigation throughput
- Release beta version of improved coastal structure condition index tool, to assist in risk-based decision making for major rehabilitations
- Improve barge impact predictions for flexible lock walls, lowering costs of new locks

FY 2006 ACCOMPLISHMENTS:

APPROPRIATION TITLE: Investigations, FY 2007

- Improved investment decisions with development of alpha version of Risk Analysis for Major Rehabilitation Software toolkit
- Developed partnering and stakeholder consensus with development of peer reviewed planning models and techniques
- Evaluated reduced hinterland emissions and congestion through waterway alternatives
- Conducted intermodal trade-off analysis with development of first generation multi-modal dynamic traffic routing model
- Improved economic forecasts through development of global spatial equilibrium model
- Completed guidance resulting in savings in lock wall design through improved estimates of barge impact forces
- Reduced unscheduled closures, downtime, and increasing throughput with development of innovative evaluation, repair, and rehabilitation techniques for steel and concrete structures on navigation infrastructure
- Extended service life and minimize catastrophic failures with non-destructive testing, inspection technologies, and improved monitoring
- Optimized cost and scheduling for coastal structure maintenance and repairs with integrated engineering and economic life cycle model
- Demonstrated acoustical imaging technology needed to quantify scour at navigation structures, reducing likelihood of dam failures
- Reached industry consensus method for determining compatibility of new turbine oil with existing oil, earlier incompatibility results in \$100K expense to rehab turbine, there are 160 such turbines in Corps Hydropower facilities.
- Improved decision making and investment strategy by improving system assessment of engineering reliability of electrical machinery at locks

3. Research and Development

b. Flood and Coastal Storm Damage Reduction

SUMMARIZED FINANCIAL DATA:

Estimated Five-Year (FY 2007-2011) Program Cost	\$20,000,000
Allocation Requested for FY 2007	3,000,000
Balance to Complete after 2007	17,000,000
Allocation for FY 2006	4,500,000
Change in FY 2007 from FY 2006	-1,500,000

JUSTIFICATION:

As part of its Flood and Coastal Storm Damage Reduction mission, 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. 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

APPROPRIATION TITLE: Investigations, FY 2007

2000 census showed that more than 50% of the US 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 \$100,000,000 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.

3. Research and Development

b. Flood and Coastal Storm Damage Reduction (continued)

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. This R&D component also improves the technology available to emergency managers for emergency planning, preparedness, response, recovery, and assessment.

FY 2007 ACTIVITY:

- Improving capabilities to analyze complex river stabilization features.
- Developing engineering guidance and performance evaluation criteria for semi-embedded structures capacity assessment and pushover analysis.
- Evaluating performance of earth structures through physical modeling and improving modeling techniques
- Improving the planning process by creating a web-accessible Planner's Catalog of Management Measures for FDR and Navigation Projects.
- Defining benefit categories, policies and procedures for externalities.
- Developing and advancing decision support tools for a collaborative planning environment.
- Defining the relationship/linkage between water quality improvement and habitat improvement.
- Developing a planner's toolbox of commonly used tools with application guidance, i.e., Cost allocation calculator, Cost sharing calculator, Interest during construction (IDC) calculator.
- Advancing capability to estimate cost and benefits and associated risk and uncertainty of alternative project designs by releasing the Beta version of Beach-fx model.
- Developing capability for mapping of sediment and temperature outputs from hydraulic models with HEC-GeoRAS for use in river hydraulic studies.
- Development of coincident frequency analysis capabilities within HEC-SSP.
- Incorporating of GIS capabilities within HEC-FDA to perform flood damage reduction calculations and viewing of results.
- Improved outlet structure computations and development of an applications guide for HEC-ResSim.
- Development of soil moisture parameter adjustment capabilities for real time forecasting.
- Providing enhanced watershed planning analysis capabilities through the completion of the HEC-WAT.
- Demonstrating levee monitoring system and web tools.
- Developing and evaluating an integrated system for helicopter-based expedient emergency documentation.
- Developing integrated geophysical, remote sensing, and geospatial applications to support rapid emergency response assessments of inland and coastal flood control structures.
- Demonstrating a coastal storm damage assessment system.
- Providing analytical models and guidance to support evaluation of reservoir reallocation.
- Updating reservoir simulation modeling to provide ensemble forecasts for complex systems with risk –based goals.
- Developing methodology for determining the annual exceedance probability of the probable maximum flood.
- Continued development and extension of dam safety risk assessment technologies and determination of performance probabilities.

APPROPRIATION TITLE: Investigations, FY 2007

FY 2006 ACCOMPLISHMENTS:

- Improved flood forecasting for project operation and emergency management by enhancing snowmelt runoff prediction capabilities in hydrologic models.
- Made channel stabilization and restoration designs more robust by developing new guidance including guidance for ice-affected rivers.
- Improved the planning process by creating a web-accessible Planner's Catalog of Management Measures.
- Improved the Corps' collaborative planning process through the release of hardcopy and web based guidance and support tools.
- Developed non-level pool routing and downstream flow-rate-of-change simulation capabilities for reservoir/stream systems through modifications to HEC-ResSim.
- Improved the capability to simulate the impacts of ice jams by adding modules to the Corps' river hydraulics model, HEC-RAS.
- Made hydrologic and hydraulic modeling seamless by releasing the Beta version of Water Analysis Tool (WAT), which integrates HEC tools.
- Developed generalized frequency analysis for flow stage and volume in HEC-SSP.
- Developed methods for mapping velocity information within HEC-GeoRAS for use in river restoration studies, and methods for spatial analysis of precipitation data within HEC-GeoHMS.
- Revised new order statistics technique and enhanced results created within HEC-FDA for improved flood damage reduction calculations.
- Upgraded CWMS (the system used for real-time water management operations throughout the Corps) by adding continuous forecasting capabilities.
- Provided comprehensive technical input and guidance on procedures and tools for the National Teams performing Corps-wide Dam Safety Portfolio Risk Assessment using the unified risk analysis techniques and tools previously developed.
- Ensured life-safety under extreme loads by testing and validating risk-based estimation tools for piping & seepage through dams, embankment breaching, and gate operation performance.
- Improved channel stabilization measures through new engineering and design guidance for riverbed grade control structures and streambank protection.
- Improving capability in multiple purpose formulation and planning by providing hard copy and web based guidance and support tools.
- Improving Ecosystem Restoration formulation through the release of updated IWRPLAN, to include Risk Analysis Techniques and NED formulation.
- Defining Externalities which influence project formulation and evaluation.

APPROPRIATION TITLE: Investigations, FY 2007

3. Research and Development

c. Environmental

SUMMARIZED FINANCIAL DATA:

Estimated Five-Year (FY 2007-2011) Program Cost	\$9,100,000
Allocation Requested for FY 2007	2,000,000
Balance to Complete after FY 2007	7,100,000
Allocation for FY 2006	1,700,000
Change in FY 2007 from FY 2006	300,000

JUSTIFICATION:

Since the Water Resources Development Act of 1986, there have been dramatic increases in authorized ecosystem restoration studies, projects and programs (Continuing Authorities Program / GI Projects). 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 and enhancement of ecosystems altered through earlier Corps activities. In addition, the Corps must proactively address potential negative environmental impacts resulting from proposed activities. The Environmental Technologies 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) ecological and engineering guidelines for dam removal, 2) engineering & biological technologies for the quantitative evaluation of aquatic resources, 3) guidance for improved restoration of rivers, streams and riparian zones, 4) standard design criteria for wetlands and special aquatic site restoration projects, and 5) natural resource inventory technologies for Corps-wide reporting. The user-oriented products provide scientifically defensible / 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 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 output quantifiable 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, classroom & CD/internet based training, and product technical support as required.

APPROPRIATION TITLE: Investigations, FY 2007

3. Research and Development

c. Environmental (continued)

FY 2007 ACTIVITY:

- Develop guidance on validation of post-project benefits of restoration projects in small watersheds
- Provide guidance on advantages and limitations of ecosystem assessment models and methods
- Provide guidelines for planning and execution of dam removals
- Develop techniques for conducting multi-functional riparian and stream restoration projects
- Provide methodology to compare wetland restoration projects based on greatest potential for functional replacement
- Provide technical guidelines for conducting level 2 inventories of selected species on Corps projects
- Provide technical guidelines for prairie restoration and management on Corps lands

FY 2006 ACCOMPLISHMENTS:

- Conducted post-project field sampling to validate and refine predictive models for ecosystem restoration projects
- Developed ecosystem and engineering guidelines for dam retrofits, management and re-operations for ecological integrity
- Provided a multi-functional approach for assessing impacts to aquatic ecosystem projects
- Provide a draft GIS-based procedure for prioritizing potential wetland restoration projects/sites based on their ability to replace desired wetlands functions
- Developed technologies for measuring multiple functions in performing riparian assessments
- Provided a protocol for standardized Level 1 natural resource inventories for all Corps lands to aid in the management of critical resources
- Evaluated innovative new technology for large-scale submerged aquatic vegetation
- Provided planting techniques and maintenance requirements for prairie restoration projects

APPROPRIATION TITLE: Investigations, FY 2007

3. Research and Development

d. System-Wide Water Resources.

SUMMARIZED FINANCIAL DATA:

Estimated Five-Year (FY 2007-2010) Program Cost	\$55,000,000
Allocation Requested for FY 2007	5,700,000
Balance to Complete after FY 2007	49,300,000
Allocation for FY 2006	9,100,000
Change in FY 2007 from FY 2006	-3,400,000

JUSTIFICATION:

In view of the importance of sustainability in water resources management, the Corps is adopting a watershed or basin-wide approach, which adds a system-wide perspective to project planning, design, operations and maintenance activities. This spatially expanded perspective is necessary because water resources projects and resultant changes in land/water use have consequences well beyond project footprints. Key to sustainability is the balance among environmental, economic and societal concerns. The System-Wide Water Resources component of the Civil Works GI R&D Program is designed to provide the Corps with the technical capabilities required to meet its mission responsibilities at project, watershed, and large basin scales, while effectively engaging stakeholders and decision makers with potentially competing interests (e.g., environmental vs. economic).

Wide-ranging proactive environmental compliance, management, and restoration efforts are an integral part of the Corps responsibilities in water resources management. Recent U.S. figures have estimated \$16 billion per year in damages caused by point- and non-point-source pollution, with up to 1 billion tons per year of eroded soils and industrial and agricultural contaminants being deposited in the Nation's waterways. These impacts are severely affecting multiple project uses, impeding navigation, impeding ecosystem restoration efforts, and negatively affecting human and ecological health. An integral part of the Corps' mission is to ensure that project planning, construction, operation, and maintenance activities solve critical environmental problems, while ensuring economic viability and societal acceptance. The System-Wide Water Resources component is providing, at a regional scale, scientifically proven and demonstrated solutions to the Corps' highest priority environmental problems, reducing unnecessary regulatory burdens, and providing environmental benefits, while maintaining a very high return on taxpayer investment. The broadened focus of this research, which addresses systemic water resource management issues, will enable the Corps to more effectively meet legal requirements such as the National Environmental Policy Act (NEPA) and the Endangered Species Act (ESA).

Maintaining navigable waterways and flood channels in the face of continuing sediment deposition consumes a substantial portion of the Corps' budget. More effective sediment management on a regional scale can reduce dredging costs and potentially adverse environmental impacts by diverting sediment from channels and into deposition zones. Sediment and associated nutrients/contaminants also have important effects on the environment. Thus, a better understanding of sediment processes in an environmental context is critical in relation to habitat and water quality concerns regionally. Also, attention to sediment processes in the Corps O&M program will improve cost effectiveness in planning and designing navigation projects, estimating channel shoaling, locating optimum dredged-material placement, and assessing the impact of navigation projects and structures on adjacent waters, shorelines, and downstream areas.

APPROPRIATION TITLE: Investigations, FY 2007

3. Research and Development

d. System-Wide Water Resources (continued)

Decision makers both within the Corps and among stakeholder organizations require accurate and reliable data for the effective planning, design, construction, operation, maintenance, and rehabilitation of projects. Annual expenditures for collection, analysis, and management of geospatial data alone are estimated to average almost \$200 million. This component of the overall Program will provide significant savings, owing to the development of more effective and efficient data collection, management, and exploitation technologies. To further reduce costs, a new framework approach is being developed to integrate and manage data and decision support software in a consistent, corporate manner. The developed information framework will integrate many of the data, technologies, models, and decision support tools across the Corps' business activities for the many different communities of practice that support regional water resource management activities. The framework will include all aspects of informatic development, including but not limited to automated information systems, information security, enterprise GIS, metadata standards, model/decision support tool interoperability, data visualization, and knowledge management.

As new and innovative technologies and methodologies are developed in this component, it will be critical to transfer information concerning these innovations to the Corps, other Federal, state, and local agencies, and to the public as quickly and efficiently as possible so that they can be effectively applied. It will be equally important to validate the applicability of the innovative technologies through demonstrations, which are a key element of this component. Examples include innovative use of remote sensing for environmental monitoring and satellite linked GIS/GPS laptops to assist with onsite environmental analyses that can be connected quickly on a system scale.

The System-Wide Water Resources component of the Program will continue to develop and deliver technology to support decisions that are scientifically, technically, and economically sound in formulating and executing watershed projects. The products of this component serve a wide variety of needs and interests, ranging from decision makers to technical specialists to stakeholders and partners. New technologies are being delivered to users via the Internet in a consistent, yet personalized, web-based format, together with tutorials explaining their characteristics and use. Analytical tools provided by this component serve a range of needs, ranging from screening level assessment capabilities to detailed numerical models. Many tools will be interconnected with standard linkages. The scientific rigor of these tools continues to increase with gains in scientific knowledge, as part of the continued maintenance and upgrading of capabilities.

FY 2007 ACTIVITIES

- Advance the computational structure of both one-dimensional and multi-dimensional hydrology and hydraulics models to accommodate sources and sinks of water at large scales for more accurate water budget estimates
- Improve parameter estimation tools for reducing uncertainty in hydrology and hydraulics models
- Improve 3-D ground water and surface water interactions for wetting and drying
- Beta test 3-D hydrodynamic modeling of salinity using an adaptive hydraulics grid
- Develop improved sediment transport kinetics for 1,2, and 3 D hydraulic models
- Continue refinement of linkages among multi-dimensional hydrodynamic models for system-wide water resources assessments
- Continue refinement of linkages among multi-dimensional hydrodynamic models and selected ecological models
- Develop advanced ecological model applications for fish passage, trophic evaluations, and restoration alternative analysis
- Develop innovative approaches (e.g., combined hyperspectral, thermal, and visual) remote sensing technologies for ecosystem assessment and monitoring

APPROPRIATION TITLE: Investigations, FY 2007

- Develop innovative spatial monitoring/assessment technologies using isotopes and geochemical markers for sediment and nutrient fate and effects applications
- Demonstrate application of assessment and forecasting technologies for decision making in watershed management, river restoration activities, and implementation of coastal restoration projects

3. Research and Development

d. System-Wide Water Resources (continued)

- Beta tested new releases of watershed models with network improvements including urban simulation capabilities.
- Released of new reservoir water optimization model combining the capabilities of separate models into one.
- Added beta version of 3-D ground water simulation with 2-D surface water model
- Advanced the computational structure of both one-dimensional and multi-dimensional hydrology and hydraulics models to accommodate additional sediment and water quality transport modules. Modular algorithm design accommodates interagency use.
- Beta tested new releases of sediment erosion, transport, and deposition capabilities in single and multi-dimensional river/estuarine models. Modular algorithm design used to accommodate interagency collaboration.
- Added wave forcing to coastal circulation model.
- Released Cascade for coastal shoreline evolution assessments and conducted associated training workshop.
- Conducted quantification of large-scale nitrogen removal processes in large river/estuarine systems.
- Improved material transport predictability for large rivers and their watersheds with innovative nutrient transport algorithms.
- Improved tiered structure and access to tools for ecological response prediction to changes in landscape features.
- Completed assembly of ecological assessment tool catalogue and watershed planning document.
- Completed planning level TMDL tool and develop beta version of an advanced (multi-dimensional, coupled models) TMDL assessment tool.
- Developed ecological indicators (with other agencies/NGOs) for system-wide adaptive management.
- Initiated advancements in ecological modeling capabilities with linkages between ecological and water quality models.
- Demonstrated innovative floodplain and aquatic habitat assessment techniques using index-based, flow prescription, and agent-based modeling approaches.
- Developed a standard suite of automated tools and services that support the visualization and browsing of various scientific data types.
- Formalized data sharing agreements with other government agencies and industry.
- Developed standard Graphical User Interfaces that streamline the connectivity of models of different spatial, temporal, and process mechanics.
- Implemented common model data format in selected computational models.
- Integrated geospatial applications into the System Wide Water Resources decision support system.
- Acquired data for selected demonstration areas and develop regional measurement and monitoring data collection specifications for future studies.

APPROPRIATION TITLE: Investigations, FY 2007

INVESTIGATIONS - REMAINING ITEMS - FY 2007 - SUMMARY TABLE	Allocation for FY 2006	Request for FY 2007	Change
1. Surveys	40,100,000	28,598,000	-11,502,000
c. Special Studies	30,375,000	20,375,000	-10,000,000
National Inventory of Flood/Storm Damage Reduction	30,000,000	20,000,000	-10,000,000
National Shoreline Study	375,000	375,000	0
e. Coordination with Other Federal Agencies, States, and Non-Federal Interests	9,725,000	8223,000	-1,502,000
(1) Planning Assistance to States	5,727,000	4,550,000	-1,177,000
(2) Other Coordination Programs	3,998,000	3,673,000	-325,000
a. Special Investigations, including FERC Licensing	1,698,000	1,600,000	-98,000
b. Gulf of Mexico Program	131,000	100,000	-31,000
c. Chesapeake Bay Program	75,000	75,000	0
d. Pacific Northwest Forest Case Study	75,000	50,000	-25,000
e. Interagency Water Resources Development	900,000	905,000	5,000
f. Interagency and International Support, including Dutch MOA	113,000	255,000	142,000
g. Inventory of Dams	222,000	200,000	-22,000
h. National Estuary Program	75,000	50,000	-25,000
i. North American Waterfowl Management	75,000	50,000	-25,000
j. Coordination With Other Water Resources Agencies	246,000	200,000	-46,000
k. CALFED	94,000	94,000	0
l. Lake Tahoe	294,000	94,000	-200,000
2. Collection and Study of Basic Data	13,306,000	9,470,000	-3,836,000
a. Flood Plain Management Services	6,407,000	5,625,000	-782,000
c. Other Programs	6,899,000	3,845,000	-3,054,000
(1) Stream Gaging	600,000	600,000	0
(2) Precipitation Studies (National Weather Service)	225,000	225,000	0
(3) International Waters	300,000	200,000	-100,000
(4) Hydrologic Studies	300,000	250,000	-50,000
(5) Scientific and Technical Information Centers	78,000	50,000	-28,000
(6) Coastal Field Data Collection	4,125,000	1,400,000	-2,725,000
(7) Transportation Systems	375,000	350,000	-25,000
(8) Environmental Data Studies	94,000	50,000	-44,000
(9) Remote Sensing Systems Support	152,000	150,000	-2,000
(10) Automated Information Systems Support – Tri-Service CADD/GIS Technology Center	402,000	350,000	-52,000
(11) Flood Damage Data Program	248,000	220,000	-28,000
3. Research and Development	26,583,000	15,200,000	-11,383,000
TOTAL INVESTIGATIONS REMAINING ITEMS	79,989,000	53,268,000	-26,721,000

APPROPRIATION TITLE: Investigations, FY 2007

CONSTRUCTION

APPROPRIATION TITLE: Construction, FY 2007

2. Navigation Projects

a. Inland Waterways Users Board

Allocation FY 2006	\$210,000	Tentative Allocation FY 2007	\$210,000
--------------------	-----------	------------------------------	-----------

The \$210,000 requested for Fiscal Year 2007 is to support, operations and expenses of the Inland Waterways Users Board, 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).

(1) Funds in the amount of \$40,000 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.

(2) Funds in the amount of \$170,000 are requested for Corps of Engineers expenses related to its responsibilities as an advisory committee sponsor. The Director of Civil Works 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.

APPROPRIATION TITLE: Construction, FY 2007

6. Dam Safety and Seepage/Stability Correction Program

Allocation FY 2006	\$15,000,000	Tentative Allocation FY 2007	\$11,000,000
--------------------	--------------	------------------------------	--------------

GENERAL: The Dam Safety and Seepage/Stability Correction Program provides for modification of completed Corps of Engineers dam projects. There are over 700 dam projects under Corps jurisdiction. While no Corps dams are in imminent danger of failure, some may have a higher dam-safety risk than originally anticipated based on new data or the likelihood of extremely large floods and seismic events. 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 increased reservoir levels above the previous pool of record at a project. 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. Dam modification work is proceeding under existing authorities on projects where cost-effective risk reduction measures have been identified and approved.

BUDGET REQUEST: The \$11,000,000 requested for Fiscal Year 2007 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.

c. Estuary Restoration Program (Title I of P.L. 106-457).

Allocation FY 2006	\$990,000	Tentative Allocation FY 2007	\$5,000,000
--------------------	-----------	------------------------------	-------------

GENERAL: The Estuary Restoration Act of 2000, Title I of P.L. 106-457 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 (including monitoring), maintaining, replacing, repairing, and rehabilitating the projects. Eight projects are in various stages of implementation. Examples include a dam removal on the Eastern Shore of Maryland, filling of mosquito ditches to restore wetlands in Florida, and reconnecting a back water slough thus restoring tidal floodplain wetland habitat in Oregon.

BUDGET REQUEST: The \$5,000,000 requested for Fiscal Year 2007 is to continue the program of estuary habitat restoration, including initiation of new projects.

APPROPRIATION TITLE: Construction, FY 2007

12. Aquatic Plant Control (APC) Program

Allocation FY 2006	\$4,000,000	Tentative Allocation FY 2007	\$3,000,000
--------------------	-------------	------------------------------	-------------

GENERAL: The Aquatic Plant control research is the nation's only Federally authorized research program for technology that is necessary to manage non-indigenous aquatic plant species. The objective of the research is to develop cost effective, environmentally compatible aquatic plant control technology, including biological, chemical, and integrated control methods. Research involving management strategies and applications and ecological factors are also being conducted. The control technology, management strategies and ecological understanding resulting from APC research forms the national base in the APC area, and is applied not only to control aquatic plant infestations in public waters nationwide, but is also essential to cost effective, environmentally compatible, aquatic plant control for the operation and maintenance of Corps projects. Nearly 3.0 million acres nationwide are now infested with problem aquatic plants. The Corps manages over 5.6 million surface acres of water at its reservoir projects alone, with significant additional acreage as part of navigation projects. Eurasian watermilfoil, hydrilla, alligatorweed, and other exotic species continue to expand from local infestations, many of which are interfering with navigation, flood control, hydropower production water quality and aquatic habitat. New colonies of objectionable aquatic plants continue to be found, such as hydrilla in the southeast and Eurasian watermilfoil in the Midwest. Direct applications of technologies developed by research under the Aquatic Plant Control Program have resulted in the reduction of waterhyacinth in the Gulf Coast States and California of over 3 million acres. In addition, technology developed by the APC research program has resulted in a nationwide reduction of alligatorweed. The Aquatic Plant Control Program is authorized by Section 104 of the River and Harbor Act of 1958, (P.L. 85-500), as amended by Section 104 of the River and Harbor Act of 1962, (P.L. 87-874), Section 302 of the River and Harbor Act of 1965 (P.L. 89-298), and Sections 103, 105, and 941 of the Water Resources Development Act of 1986 (P.L. 99-662), Section 225 of the Water Resource Development Act of 1996 and Section 205 of the Water Resource Development Act of 1999 (P.L. 106-53). The APC program has an annual expenditure ceiling of \$15,000,000.

BUDGET REQUEST: The \$3,000,000 requested for Fiscal Year 2007 will be used for continued research efforts for aquatic plant control technologies to support the operation and maintenance of Corps projects. Efforts will focus on control methods for submersed aquatic plants (i.e. Eurasian watermilfoil, hydrilla, and giant salvinia), with emphasis on biological control agents, chemicals, integrated control methods, management strategies and ecological factors that impact non-indigenous aquatic plant species. Research efforts are fully coordinated with other Federal, state, and local agencies to prevent duplication of effort and to ensure that research under this program is consistent with, and complementary to, the research efforts of others. The cost of research dealing with problems/outputs of regional or nationwide importance is 100 percent Federal.

APPROPRIATION TITLE: Construction, FY 2007

14. Employees Compensation (Payments to the Department of Labor)

Allocation FY 2006	\$21,000,000	Tentative Allocation FY 2007	\$21,000,000
--------------------	--------------	------------------------------	--------------

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 \$21,000,000 requested for Fiscal Year 2007 represents the total costs of benefits and other payments made from the Employees Compensation Fund during the period July 1, 2004, through June 30, 2005, 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 2007

19. Construction Suspension Fund

Allocation FY 2006	\$0	Tentative Allocation FY 2007	\$49,372,000
--------------------	-----	------------------------------	--------------

GENERAL: For projects being considered for suspension of construction, the construction suspension fund provides funding for the costs of completing or terminating each ongoing contract, whichever is less, plus associated in-house costs. Termination costs include the costs of settled claims.

BUDGET REQUEST: The \$49,372,000 requested for Fiscal Year 2007 will be used for projects being considered for suspension of construction, the construction suspension fund provides funding for the costs of completing or terminating each ongoing contract, whichever is less, plus associated in-house costs. Termination costs include the costs of settled claims. Fiscal Year 2007 funds will be used for termination or completion costs on the contracts for the following projects:

BRUNSWICK HARBOR, GA
CHARLESTON HARBOR, SC
COMITE RIVER, LA
GARRISON DAM AND POWER PLANT, ND (MAJOR REHAB)
MT ST HELENS SEDIMENT CONTROL, WA
PORTUGUES AND BUCANA RIVERS, PR
ST FRANCIS BASIN, AR & MO
THURMOND LAKE POWERHOUSE, GA & SC (MAJOR REHAB)
WILMINGTON HARBOR, NC
YAZOO BASIN - UPPER YAZOO PROJECTS, MS

OPERATION AND MAINTENANCE

Appropriation Title: Operation and Maintenance – Fiscal Year 2007

Department of the Army, Corps of Engineers – CIVIL
OPERATION AND MAINTENANCE

Project Name	FY 2 006 APPROPRIATION	FY 2007 PROGRAM
Aquatic Nuisance Control Research	615,000	690,000
Asset Management/Facilities and Equip Maintenance (FEM)	2,500,000	4,000,000
Beneficial Uses of Dredged Material (Section 204/207/933) **	4,950,000	1,500,000
Coastal Inlet Research Program	2,206,000	2,475,000
Cultural Resources (NAGPRA/Curation)	1,239,000	2,000,000
Dredge Wheeler Ready Reserve	7,920,000	8,000,000
Dredged Material Disposal Facilities Program**	8,712,000	18,000,000
Dredging Data And Lock Performance Monitoring System	946,000	1,062,000
Dredging Operations And Environmental Research (DOER)	5,417,000	6,080,000
Dredging Operations Technical Support Program (DOTS)	1,239,000	1,391,000
Earthquake Hazards Reduction Program	267,000	270,000
Facility Protection	11,880,000	12,000,000
Great Lakes Tributary Model	802,000	900,000
Independent Assessment of Stewardship Program	0	500,000
Inland Waterway Navigation Charts	3,304,000	3,708,000
Monitoring Of Completed Navigation Projects	1,404,000	1,575,000
National Coastal Mapping	2,400,000	2,400,000
National Dam Safety Program (Portfolio Risk Assessment)	4,458,000	6,300,000
National Emergency Preparedness Program (NEPP)	4,950,000	5,000,000
Navigation Mitigation Project (Section 111) **	495,000	2,500,000
Performance Based Budgeting Support Program	654,000	2,540,000
Portfolio Assessment For Water Supply Reallocation	0	300,000
Program Development Technical Support Program (ABS, P2, WINABS)	223,000	300,000
Protection of Navigation (Four Items)	5,058,000	5,541,000
Recreation Management Support Program (RMSP)	1,426,000	1,600,000
Regional Sediment Management Demonstration Program	8,415,000	1,391,000
Reliability Models Program for Major Rehab.	599,000	608,000
Stewardship Support Program	500,000	500,000
Water Operations Technical Supports (WOTS)	582,000	653,000
Total Remaining Items	83,161,000	93,784,000

Appropriation Title: Operation and Maintenance – Fiscal Year 2007

Aquatic Nuisance Control Research

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost of Continuing Program	\$3,500,000
Appropriation for FY 2006	615,000
Allocation Requested for FY 2007	690,000
Increase of FY 2007 from FY 2006	75,000

AUTHORIZATION: The Nonindigenous Aquatic Nuisance Prevention and Control Act of 1990 (PL 101-646).

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, which can impact operations and maintenance on Corps' facilities, as well as threaten valued natural resources. Zebra mussels alone cost the public over \$1B 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. Prevention methodology focusing on dispersal barrier technology will be investigated. The development of strategies to apply control methods involves engineering design, operations, and maintenance of facilities and structures. 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. Methods to reduce invasive species impacts to threatened and endangered species and restore natural habitat will be investigated. Due to the introduction of the Northern Snakehead Fish and West Nile Virus, the Corps has experienced a significant increase in the number of field assistance requests at our operating projects. Numerous dredged material disposal areas in the Atlantic, Gulf coast and Great Lakes region have mosquito abatement programs. Due to the introduction of the West Nile Virus, local communities want greater assurances that mosquito populations at our disposal sites are controlled to the maximum extent practicable. Following introduction of the Northern Snakehead Fish, a number of Corps reservoir projects have had to take interdiction measures to prevent their introduction.

PROPOSED ACTIVITIES FOR FY 2007:

1. Provide a Risk-based assessment tool to guide critical aspects of ANS management, i.e., early spread, prevention, economic and ecological impacts, human health and eco-terrorism
2. Provide strategic guidance for management and control of silver and bighead carp in large river systems
3. Provide guidance on the efficacy of using barriers to restrict fish movement on navigable waterways
4. Provide control methods for aquatic nuisance species causing Avian Vacuolar Myelinopathy and bald eagle deaths on Corps reservoirs
5. Provide best management practices for prevention and control of armored suckermouth catfish in lakes/rivers/streams in Florida, Texas, and Hawaii.
6. Provide guidance for the control of red tides based on water quality studies from the Caloosahatchee River, Florida

Appropriation Title: Operation and Maintenance – Fiscal Year 2007

ACCOMPLISHMENTS IN FY2006:

1. Develop ANS decision-making technologies for threat, early detection, monitoring strategies, management protocols, and exclusion protocols.
2. Evaluate the effectiveness of electrical barriers on fish containment.
3. Develop long-term management and control strategies for silver and bighead carp in big river field studies
4. Develop environmentally compatible solutions for the control of armored suckermouth catfish
5. Examine the causal agent of Avian Vacuolar Myelinopathy (AVM) blamed for numerous bald eagle deaths on Corps reservoirs
6. Evaluate water quality data from the Caloosahatchee River for possible links between Corps discharge rates and red-tide blooms

Appropriation Title: Operation and Maintenance – Fiscal Year 2007

Asset Management and Facilities Equipment Maintenance

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost of Continuing Program	\$ 4,000,000
Appropriation for FY 2006	2,500,000 1/
Allocation Requested for FY 2007	4,000,000
Increase of FY 2007 Over FY 2006	1,500,000

1/ Centrally funded activity in Fiscal Year 2006.

AUTHORIZATION: EO13327 and DOD memorandum, 10 July 1995, selecting the Equipment Maintenance System (FEMS) as a Department of Defense migratory Computerized Maintenance Management System (CMMS).

JUSTIFICATION: Facilities and Equipment Maintenance System (FEMS) is a Department of Defense migratory Computerized Maintenance Management System (CMMS). The Joint Logistics Systems Center (JLSC) developed the system to meet the needs of DoD maintenance organizations. This system was designated as a DoD migratory system in 1995. FEM is the Corps tailored version of MAXIMO Enterprise Base Systems (MRO Software, Inc.), which is a Commercial-Off-The-Shelf-System (COTS) package. FEM is deployed at the Corps' two consolidated data processing centers, and integrates O&M business processes into a cost-effective asset management program. It supports and consolidates functions within each O&M business line providing the capability to track life cycle costs of all assets. FEM is being deployed in FY05/FY06 within the Northwest Division. Development is ongoing to meet the requirements of E.O.13327 for asset management and to update the COTS product to web-based applications.

PROPOSED ACTIVITIES FOR FY 2007. FEM will be deployed in 4 MSCs with a focus on O&M business line champions and best business processes. Resolution of procurement, inventory and timekeeping interface requirements with CEFMS and other corporate legacy systems will be ongoing. Planning for FY08 deployment to the residual FOAs. Reconfiguration to web based application. USACE Asset Management Plan will be revised to comply with OMB requirements. Inventory data will be compiled to meet FRPC reporting requirements. Ongoing development of performance metrics to be accomplished.

ACCOMPLISHMENTS IN FY2006:

1. Completed FEM deployment in NWD, LRD, MVD
2. Initiated reconfiguration to web based applications.
3. Completed draft AMP in collaboration with OMB
4. Completed real property inventory to meet FRPC requirements
5. Stood-up corporate asset management PDT

Appropriation Title: Operation and Maintenance – Fiscal Year 2007

Beneficial Uses of Dredged Material (Section 204/207/933)

SUMMARIZED FINANCIAL DATA:

Appropriation for FY 2006	4,950,000 1/
Allocation Requested for FY 2007	1,500,000
Decrease of FY 2007 from FY 2006	3,450,000

1/ Funds in the amount of \$4,950,000 were appropriated in FY 2006 under the Construction account for this work.

AUTHORIZATION: Section 204 of the Water Resources Development Act of 1992 P.L. 102-580, Section 207 of P.L. 102-580, and Section 145 of the Water Resources Development Act of 1976 (Public Law 94-587), as amended by section 933 of Public Law 99-662, section 35 of Public Law 100-676, Section 207 of Public Law 102-580, Section 217 of Public Law 106-53, and Section 111 of Public Law 106-541.

JUSTIFICATION: Section 204 of the Water Resources Development Act of 1992 (Public Law 102-580) authorizes the Secretary of the Army to carry out projects for the protection, restoration, and creation of aquatic and ecologically related habitats, including wetlands, in connection with dredging for construction, operation, or maintenance by the Secretary of an authorized navigation project. Annual appropriations not to exceed \$15,000,000 are authorized. Section 207 of Public Law 104-303 modified section 204 by authorizing disposal in any manner for which the environmental benefits outweigh the added costs. Costs allocable to the habitat protection, restoration, or creation project are limited to the costs that are in excess of the costs necessary to carry out the dredging for the authorized navigation project. Non-Federal interests are required to share in a minimum of 25 percent of the cost of each project including the provision of all required lands, easements, rights-of-way and relocations with the value of these contributions included in the 25 percent non-Federal share of the project and to pay 100 percent of the operation, maintenance, and replacement and rehabilitation cost of the wetland or other aquatic habitat area. The costs of the habitat protection, restoration or creation project are limited to costs which are in excess of those costs necessary to carry out the dredging for the authorized navigation project.

Section 145, as amended, authorizes the Secretary of the Army, upon the request of the affected state, to place dredged material from Federal navigation projects on adjacent beaches if the state or a political subdivision of the state agrees to pay 35 percent of the incremental costs of such placement over the alternative least-cost, environmentally acceptable method of disposal. Policy for beach nourishment with dredged material limits Federal participation in such projects to one-time nourishment at each site.

PROPOSED ACTIVITIES FOR FY 2007: Funds will be used to continue a cost shared program for the protection, restoration and creation of aquatic and ecologically related habitats, including wetlands. Projects to be carried out using FY 2007 funds include Dauphin Island Parkway, AL, Morehead City Harbor, NC.

ACCOMPLISHMENTS IN FY 2006: Funds are being used to continue beneficial uses of dredged material efforts.

Appropriation Title: Operation and Maintenance – Fiscal Year 2007

Independent Assessment for Stewardship Program

SUMMARIZED FINANCIAL DATA:

Appropriation for FY 2006	\$0
Allocation Requested for FY 2007	\$500,000
Change of FY 2007 from FY 2006	\$500,000

AUTHORIZATION: This program is conducted under the general authority of PL 78-534, the Flood Control Act of 1944 (58 Stat. 887).

JUSTIFICATION: One way to measure the effectiveness of program performance is to perform non-biased, independent evaluations that are on a regular, or as needed basis, to fill gaps in performance information. The last such comprehensive evaluation for the Environmental Stewardship program was completed in 1984 by a blue ribbon panel. This independent panel found that the demands for available natural resources were increasing substantially; soil erosion is a major challenge; there should be clear authority to intensively manage natural resources for public purposes; and the Corps should develop and maintain natural resource management plans that are based on current inventories. The FY05 PART assessment concluded that a new assessment is needed. A new independent assessment will seek evaluation and recommendations to improve program performance and increase program efficiency. The Environment-Stewardship program evaluation will examine the Environmental Stewardship program management strategies, program management practices, adequacy of current regulations, performance measurement and improvement recommendations, including mechanisms to increase receipts that may be implemented consistent with the resource protection and conservation mission of the stewardship program. The program assessment would be completed in one year.

PROPOSED ACTIVITIES FOR FY 2007: An independent entity would be contracted with to perform the evaluation and provide recommendations to the Corps for improving program effectiveness and efficiency.

ACCOMPLISHMENTS IN FY 2006: None.

Appropriation Title: Operation and Maintenance – Fiscal Year 2007

Coastal Inlets Research Program

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost of Continuing Program	\$3,000,000
Appropriation for FY 2006	2,206,000
Allocation Requested for FY 2007	2,475,000
Increase of FY 2007 from FY 2006	269,000

AUTHORIZATION: This effort is necessary to provide quantitative predictive tools and data for reducing the cost of dredging of Federal navigation projects and for supporting national security efforts to protect waterways and ports.

JUSTIFICATION: The Corps will expend an estimated \$8 to \$10 billion during the next 25 years at the more than 150 coastal inlets with existing Federal navigation projects to maintain, modify, and create navigation channels and structures, and to mitigate damages to adjacent beaches. Many inlet navigation structures are more than a century old, have degraded, and no longer perform as designed. In addition, the national “2020” plan calls for deeper and wider channels to accommodate the next class of vessels, bringing great uncertainty in prediction of maintenance requirements. Political, engineering, and demographic factors may increase costs. Public sensitivity to current maintenance practices, where dredged material is placed in offshore disposal areas, may result in requirements for more nearshore placement of maintenance materials to benefit adjacent beaches. Inlets are the primary conduits for the transport of environmental constituents between bays, estuaries, and the open ocean, and the Corps may be constrained from performing present activities unless it can make accurate predictions of inlet response, and thus environmental response, to such activities. Reliable predictive modeling of inlet hydrodynamics and sediment transport will aid the Corps in assessing national priorities such as fate of contaminants and mines introduced in and around waterways and port entrances. This technology is being transferred to Corps Districts and non-federal organizations to rapidly apply at the local level.

The Coastal Inlets Research Program (CIRP) is a continuing program to increase Corps capabilities to cost-effectively design and maintain the more than 150 inlet projects that comprise the bulk of coastal operations and maintenance (O&M) expenditures. Because of their complex nature, the behavior of inlets is poorly understood. As a consequence, the Corps spends more of its O&M budget than necessary to maintain inlet projects. The CIRP investigates functional aspects of inlets such as their short- and long-term behavior and their response to waves, tides, currents, and engineered changes, given their geologic structure on all coasts of the United States. As inlet behavior becomes better understood, sophisticated tools for management of inlets for navigation projects, such as models and empirical relationships, will become available. These new tools will lead to more efficient, cost-effective designs for reliable channels and low-maintenance jetties that will reduce O&M requirements and, consequently, costs. This predictive technology can assess threats and plan actions in response to threats introduced in our inlets, coastal waterways, and ports.

PROPOSED ACTIVITIES FOR FY 2007:

1. Transfer coastal inlet navigation database technology to Corps and Industry via national workshops. This searchable database served by e-Coastal includes O&M and process information, as well as navigation structure history linked by location, in two tiers: (a) O&M activities, channel and adjacent beach response, inlet sediment budgets, and lessons learned; and (b) climatological wave and current forcing data, bathymetric surveys, and structure condition history for Corps critical coastal inlet infrastructure.

Appropriation Title: Operation and Maintenance – Fiscal Year 2007

2. Demonstrate new fluid-structure interaction technology at three projects to determine future O&M cost savings. The technology predicts a) estimate of runup and overtopping of coastal navigation defense structures, b) wave impact forces, c) scouring/instability of structural foundations, and d) ship transit risk factors for the waterborne commerce and trade into the Nations' ports/harbors via channels and waterways.
3. Test the Inlet Modeling System (IMS)-M2/3D predictive technology for nearshore berm design in developing least-cost and environmentally sustainable manner. The objective is to provide predictions to conduct least-cost analyses to demonstrate efficient bypassing of dredged material through nearshore placement.
4. Develop design guidance, nomograms, and other engineering information for optimizing navigation channel design to predict and minimize maintenance requirements and bypassing strategy, based on numerous IMS-M2D morphology change predictions for a wide range of inlet jetty configurations and channel widths, depths, and lengths.
5. Apply the Asset Management Decision Tool in hindcast mode to compare predictions to how funds were actually distributed. This test will provide critical evaluation and identify shortcomings in the methodology. The Asset Management Decision Tool supports funding decisions to provide rational assessment of repair and maintenance priorities for the Corps' critical coastal navigation infrastructure.
6. Improve modeling of sediment transport and morphology change in inlet, estuarine, and bay systems by incorporating environmental variables such as salinity, temperature, precipitation, and evaporation in the regional Inlet Modeling System-Advanced CIRCulation model (IMS-ADCIRC).
7. Transfer technology for modeling and designing solutions for the critically eroding region down drift of inlets through national Corps-Industry workshops. This isolated region is often nourished with dredged material, which is then rapidly eroded (likely returning back into the navigation channel, increasing future dredging costs). The GENESIS-T model was improved based on field analysis and physical modeling to predict shoreline change due to wave and tidal sediment transport, as well as beach response to structures (e.g., T-groins) in this region.
8. Port and redevelop previous generation shoreline analysis (BeachTools) and inlet morphology analysis software (InletGIS) to support current GIS platforms. New software will feature state-of-the-art analysis algorithms that facilitate rapid and accurate analysis of shoreline change and inlet morphology change.
9. Develop a comprehensive geomorphologic model of stabilized coastal inlet morphology. Describe and quantify scales of change for inlet shoals, adjacent shorelines, nearshore bathymetry, and navigation channel and shoaling through the long-term evolution of a stabilized inlet. Model will assist Districts in managing coastal inlets and mitigation in the littoral zone.

ACCOMPLISHMENTS IN FY 2006:

1. Applied new version of IMS-ADCIRC to three Federal coastal inlets with persistent O&M problems (excessive cost). IMS-ADCIRC has improved prediction of sediment transport, morphology change, flows near structures and navigation channels, as well as new visualization tools for sediment particle tracking.
2. Reduced desk-top PC (and high-performance computing, if desired) simulation time for IMS-ADCIRC by parallelizing the code.
3. Implemented swash zone processes and shoreline change algorithms in IMS-M2D to simulate morphology change at beaches adjacent to inlets. Also implemented an Advection-Diffusion sediment transport formulation to improve accuracy of simulation of channel infilling.

Appropriation Title: Operation and Maintenance – Fiscal Year 2007

4. Developed a new wave-structure interaction numerical model that decreases study time and cost by elimination of reliance on physical models.
5. Extended runup estimation equations based on wave momentum flux to include impermeable rock revetment structures. This allows an accurate, uniform methodology for runup estimation on beaches to steep rock structures.
6. Developed new design guidance to reduce dike construction costs. This physical model experiment series was initiated by the New Orleans District, who had a current-deflection dike at the mouth of Southwest Pass, Mississippi River, that required yearly repairs due to storm damage. The tests identified the loading for the new dike, and the CIRP extended the experiment series to develop general guidance for design of dikes under wave and current forcing.
7. Initiated application of CIRP models and decision-support tools at four sites to (a) validate CIRP technology and (b) develop solutions to reduce O&M costs. Tools were directed towards improving O&M practices (e.g., channel shoaling, dredging, deepening, realignment; structure modifications; adjacent beach nourishment; dredging placement, use of weirs and deposition basins, and ebb and flood shoal mining), as well as developing guidance for O&M activities with applications beyond the site studied.
8. Developed guidance on jetty and beach interaction, with focus on natural sand bypassing, by operation of IMS-M2/3D predictive technology.
9. Refined the Inlet Reservoir Model for long-term prediction of inlet geomorphology and natural sand bypassing to include time-dependent wave and sediment transport forcing, validating at Ocean City Inlet, MD.
10. Upgraded the Sediment Budget Analysis System (SBAS) software to enhance functionality and user support. Changes allow rapid evaluation of sediment budget alternatives, improved data entry, and expanded options for force balancing sediment budgets. These changes facilitate formulization of comprehensive sediment budgets while reducing user time.
11. Developed guidance to District offices on methodology and theory for evaluating the down-drift shoreline impacts of stabilized coastal inlets in a regional context. Guidance focused on sediment budget formulization and theory on assessing Federal responsibility.
12. Completed physical model study of jetty spurs to aid in their design to reduce navigation channel shoaling. Spurs on the outside (beachside) of jetties have strong potential to reduce channel shoaling from sediment introduced from local beaches. As a corollary, spurs help to maintain sediment in the littoral zone and reduce beach erosion.
13. Updated web-based tutorial and handbook on coastal inlets called "Inlets Online" that addresses needs from the professional engineering and science level to college and high school education. Aerial photograph collection includes historic (from 1930's) to most recently acquired aerial photography around the Corps, as well as guidance for analyzing and interpreting aerial photographs.
14. Supported Corps Districts in addressing concerns on national applicability at specific inlets. These included analysis of channel infilling at Gulfport, AL; Galveston Entrance Channel, TX; long-term simulations of natural sand bypassing at Shinnecock Inlet, NY; modeling of wave, current, and sediment transport in the Chesapeake Bay; strategies to reduce excessive infilling of upper Matagorda Ship Channel, TX; and loading on a current-deflection dike at the mouth of Southwest Pass, Mississippi River.

Appropriation Title: Operation and Maintenance – Fiscal Year 2007

Cultural Resources (NAGPRA/Curation)

SUMMARIZED FINANCIAL DATA:

Estimated Total (FY 1994 - 2010) Program cost	\$44,000,000
Allocation Requested for FY 2006	1,239,000
Allocation Requested for FY 2007	2,000,000
Increase of FY 2007 from FY 2006	761,000

AUTHORIZATION: The Native American Graves Protection and Repatriation Act (NAGPRA) enacted on 16 November 1990 contains data gathering, reporting, consultation, 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 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.

PROPOSED ACTIVITIES FOR FY 2007: 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.

Appropriation Title: Operation and Maintenance – Fiscal Year 2007

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.

Appropriation Title: Operation and Maintenance – Fiscal Year 2007

Dredge Wheeler Ready Reserve

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost of Continuing Program	\$8,000,000
Allocation for FY 2006	7,920,000
Allocation Requested for FY 2007	8,000,000
Increase of FY 2007 over FY 2006	80,000

AUTHORIZATION: Section 237 of the Water Resources Development Act of 1996 (WRDA 96) 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 for operation of the WHEELER had been reimbursed from project funds from the Operation and Maintenance, General appropriation, and subsequently charged to the Harbor Maintenance Trust Fund account as eligible navigation costs subject to reimbursement. In FY 1998, the WHEELER was placed in a ready reserve status as required by the above referenced section of WRDA 96.

PROPOSED ACTIVITIES FOR FY 2007: The hopper dredge WHEELER, will remain in ready reserve status, and will be required to be able to perform emergency dredging work, but will not be assigned any scheduled hopper dredging work. 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 WHEELER was kept at the dock, with sufficient crew to respond to any unforeseen requirement within 72 hours and to work for approximately three 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. The WHEELER performed approximately 60 days of training during the year. In every year but one, since being placed in ready reserve status, the WHEELER was called out to perform urgent dredging to assist industry dredges in restoring navigation channels and waterways.

Appropriation Title: Operation and Maintenance – Fiscal Year 2007

Dredged Material Disposal Facilities Program

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost of Continuing Program	\$18,000,000
Appropriation for FY 2006 1/	8,712,000 1/
Allocation Requested for FY 2007	18,000,000
Increase of FY 2007 from FY 2006	9,288,000

1/ Funds in the amount of \$8,712,000 were appropriated in FY 2006 under Construction for this work.

AUTHORIZATION: Section 101 of the Water Resources Development Act of 1986 (WRDA 86) (Public Law 99-662) as amended by Section 201 of the Water Resources Development Act of 1996 (WRDA 96)(Public Law 104-303).

JUSTIFICATION: Section 101 of the Water Resources Development Act of 1986 (WRDA 86)(Public Law 99-662) as amended by Section 201 of the Water Resources Development Act of 1996 (WRDA 96)(Public Law 104-303) established consistent cost-sharing for construction of dredged material disposal facilities associated with Federal navigation projects, including disposal facilities for Federal project maintenance. The costs of constructing land-based and aquatic dredged material disposal facilities associated with the construction, operation, and maintenance of all Federal navigation harbors and inland harbors shall be considered costs of constructing a general navigation feature of the project and shall be shared in accordance with the procedures set forth in section 101(a) of WRDA 86.

PROPOSED ACTIVITIES FOR FY 2007: Funds will be used for the Federal share of construction of applicable dredged material disposal facilities required for maintenance of existing projects, reimbursement of non-Federal sponsors for dredged material disposal facilities constructed by them in advance of Federal appropriations for such purpose, or fee payments to private entities for the use of privately owned dredged material disposal facilities if such a facility is the least cost alternative to dispose of dredged material. All costs for dredged material disposal facilities associated with project construction and maintenance will be reimbursed from the Harbor Maintenance Trust Fund.

ACCOMPLISHMENTS IN FY 2006: : Funds are being used for the Federal share of construction of applicable dredged material disposal facilities required for maintenance of existing projects, reimbursement of non-Federal sponsors for dredged material disposal facilities constructed by them in advance of Federal appropriations for such purpose, or fee payments to private entities for the use of privately owned dredged material disposal facilities if such a facility is the least cost alternative to dispose of dredged material. All costs for dredged material disposal facilities associated with project construction and maintenance will be reimbursed from the Harbor Maintenance Trust Fund. Fiscal Year 2006 efforts include Upper Saginaw River, MI, Savannah Harbor Disposal Areas, GA and SC, and Chocolate Bayou, TX.

Appropriation Title: Operation and Maintenance – Fiscal Year 2007

Dredging Data and Lock Performance Monitoring System

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost for Continuing Program	\$1,595,000
Appropriation for FY 2006	946,000
Allocation Requested for FY 2007	1,062,000
Increase of FY 2007 over FY 2006	116,000

AUTHORIZATION: These efforts are necessary to provide dredging and lock data for efficient management of Congressionally authorized navigation projects, 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; 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 commodities served, 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 CEEIS 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 \$800,000 of the overall OMBIL-Plus costs.

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, and commodity origins-destinations and other cargo data is needed to support the Corps maintenance dredging program. Tasks include updating of the world fleet composition and forecasts; analysis of current and projected commodity and traffic flows and trade patterns; and the collection and associated analysis of dredging information and performance data in support of CW navigation decisions.

PROPOSED ACTIVITIES FOR FY 2007: Continue on-going Lock and Dredging information system operations, maintenance, essential upgrades, security and user support; develop additional data warehouse reports to support the data requirements of the performance based budget process, and work with the National Lock Data "Product Delivery Team" overseeing Corps lock data requirements. Update forecasts for world fleet, commodities and trade; develop voyage ports-of-call information for containerships; assess vessels transiting U.S. ports; and physically model vessel motion to assess and minimize future dredging requirements. Provide dredging and lock analytical, technical, and data support for Corps offices. Provide lock performance measures to monitor lock operations performed by the MEO or contractor as the result of the competitive sourcing of the O&M of Locks and Dams activity.

Appropriation Title: Operation and Maintenance – Fiscal Year 2007

ACCOMPLISHMENTS IN PRIOR YEARS: Performed operations, maintenance, system upgrades, security and user support for dredging and lock data systems. Finalized the lock data warehouse with all lock data available from a central source. Provided critical data for navigation performance measures, 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. The Dredging Needs Database was updated. 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.

Appropriation Title: Operation and Maintenance – Fiscal Year 2007

Dredging Operations and Environmental Research (DOER) Program

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost of Continuing Program	\$7,000,000
Appropriation for FY 2006	5,417,000
Allocation Requested for FY 2007	6,080,000
Increase of FY 2007 from FY 2006	663,000

AUTHORIZATION: The Water Resources Development Acts of 1986, 1988, 1990, 1992, 1996, and 1999 contained provisions addressing contaminated sediments in navigation channels, dredged material management, and beneficial uses that mandates a continuing need for innovative and enhanced technology.

JUSTIFICATION: The last comprehensive research effort on contaminated sediments and dredged material management was completed in 1978 under PL 91-611. More recent Water Resources Development Acts contained provisions addressing contaminated sediments in navigation channels, dredged material management, and beneficial uses that mandate a continuing need for innovative and enhanced 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 approaching capacity with few opportunities for new facilities. Aquatic placement is under increased scrutiny due to habitat degradation concerns and expanded listings of aquatic threatened and endangered species such that this economically preferable alternative is contested by increased litigation and substantially higher costs. Environmental standards and controls for all dredged material placement alternatives are increasingly restrictive and continue to grow in number. Risk-based assessments and management have gained acceptance; unfortunately the Corps' corporate technology base is diminishing and must be maintained. 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 keep costs within budget constraints.

The DOER Program is an integral and highly beneficial component of the Corps navigation dredging and environmental protection missions. Dredging and disposal 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 with critical economic needs while accomplishing dredging activities is a major challenge. 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. Methods for reclamation and reuse of contaminated sediments from upland disposal areas for beneficial purposes as well as increased capacity are key components of the program that will result in significant fiscal, manpower and time resource savings.

Major focus areas of DOER include, (1) innovative technologies, (2) environmental resource protection, (3) dredged material management, and (4) risk research.

PROPOSED ACTIVITIES FOR FY 2007:

Appropriation Title: Operation and Maintenance – Fiscal Year 2007

- 1. Innovative Technologies:** Complete field evaluations of navigable depth measurement technologies. The Silent Inspector monitoring system for contract and government dredging operations will be available on a Corps-wide basis. The Dredging Operations Decision Support System will be applied to an existing project in the Savannah District.
- 2. Environmental Resource Protection:** Complete research on methods to minimize losses of threatened or endangered species during inland and coastal waterway dredging. Develop protocols for beneficial use of dredged material for aquatic habitat enhancement and protection of essential fish habitat. Initiate research on protection of salmon, sea turtle and other high priority activities.
- 3. Dredged Material Management:** Develop a data management/analysis and modeling system that will provide efficient use of USACE dredging models and tools in an integrated platform where external data and model output can be efficiently transferred in and out of the system. The system will include the core STFATE, MDFATE, LTFATE, and PTM models as well as a GIS-based data management system.
- 4. Risk:** Combine contaminant distribution predictions with the SSFATE Model (field validated sediment transport and fate predictive model) for full contaminant sediment management. Assess contaminant effects and risk to threatened and endangered fish. Continue bioturbation effects of contaminant release from sediments.

ACCOMPLISHMENTS IN FY 2006: The DOER Program successfully completed all of the project requirements and completed the following products:

- 1. Innovative Technologies:** Initiated cooperative demonstrations for specialized dredges for contaminated sediments; demonstrated innovative placements and rehandling for beneficial uses of dredged material; demonstrated geotextile container performance; evaluate lessons learned from Silent Inspector demos; field trial decision support system; and implement navigable depth measurement technology.
- 2. Environmental Resource Protection:** Continued research on effective engineering and construction alternatives for protection of high priority threatened and endangered species, e.g., sturgeon, least tern, salmon, and sea turtles. Completed habitat protection activities for submerged aquatic vegetation and initiated work on intertidal sand flat and mudflat restoration. Completed environmental windows best management practices for protection of environmental resources.
- 3. Dredged Material Management:** Completed activities on Geographic Information Systems (GIS) based dredged material management tools and initiated development of integrated tool for assessing regional water quality impacts. Continued testing and evaluation guidance for assessing aquatic placement site stability. Completed phyto-engineering technology for confined disposal facility (CDF) reclamation.
- 4. Risk:** Initiate work on contaminant losses during dredging, due to bioturbation and leaching. Initiate assessment of contaminant effects and risk to threatened and endangered species. Complete risk based screening procedures for evaluating CDF pathways. Complete the application of structured Decision Analysis for Dredged Material Management.

Appropriation Title: Operation and Maintenance – Fiscal Year 2007

Dredging Operations Technical Support (DOTS) Program

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost of Continuing Program	\$1,500,000
Appropriation for FY 2006	1,239,000
Allocation Requested for FY 2007	1,391,000
Increase of FY 2007 from FY 2006	152,000

AUTHORIZATION: These efforts are necessary to provide support for management of Federal navigation projects.

JUSTIFICATION: Maintenance of the nation's navigation projects 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" concept by providing comprehensive and interdisciplinary technology transfer, technology application, and training essential to all stakeholders involved in Federal and permitted navigation projects. DOTS is structured as a centralized source of relevant information that maximizes cost effectiveness and facilitates expeditious and consistent implementation of National policies, laws, and 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.

PROPOSED ACTIVITIES FOR FY 2007: Renewed emphasis will be 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; 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. 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.

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

Appropriation Title: Operation and Maintenance – Fiscal Year 2007

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 further 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.

ACCOMPLISHMENTS IN FY 2006: The DOTS program successfully met all of its goals established for technical support, technology transfer, and outreach. Technical questions, from Federal and state agencies and private concerns dealing with implementation of the inland and ocean testing manuals, continued to be addressed. As mandated by the 1972 London Convention, the DOTS program annually compiles data and produces reports on ocean dumping activities to the EPA and the International Maritime Organization. The program has conducted 25 sediment management seminars since 1991 that have been attended by over 5,200 personnel from Corps districts, federal, state, and local agencies, industry, and environmental protection groups. Instruction focused on state-of-the-science techniques in regulating, testing, and managing dredged material. The program also continued to support communication among Corps field offices and numerous agencies engaged in development of regional strategies to promote assessment and protection of threatened and endangered species associated with navigation projects. Examples include extensive coordination and renewed effort to minimize take of sea turtles by hopper dredges, and involvement of the American Bird Conservancy in the search for resolution of conflicts between the conduct of navigation projects and Interior Least Tern populations. A joint Corps/EPA task force made significant progress toward formulation of a combined, generic ocean and inland disposal implementation manual. This effort fosters consistency in dredged material testing and management between the Clean Water and Marine Protection, Research and Sanctuaries Acts. This builds upon and serves as a companion to the completed final version of the Upland Testing Manual. Expansion, maintenance and updating of several web-based databases provided enhanced access to important sources of information, such as the Environmental Residue and Effects Database (ERED), which continued to be critical for successful implementation of the CE/EPA ocean and inland testing manuals for dredged material disposal. Additional databases that extend accessibility to related resources, including upland plant toxicology and tools for risk assessment applications were brought online and refined. A new database providing a comprehensive clearinghouse of information pertinent to protection of Threatened and Endangered Species has been added to the website.

The DOTS Program continues to be an exceptionally successful conduit for navigation and dredging-related information, as evidenced by the distribution of thousands of technical manuals, bulletins, technical notes and reports currently found on the DOTS website (<http://el.erdc.usace.army.mil/dots>). The DOTS website provides a comprehensive information retrieval system for all Research and Development products related to regulating, maintaining, and managing the nation's navigable waterways. For example, the DOTS-sponsored Educational Outreach site (<http://education.wes.army.mil>) has become the most active of all Corps websites, visited by over three million users in its first year of operation, and experiences continued growth.

Appropriation Title: Operation and Maintenance – Fiscal Year 2007

Earthquake Hazards Reduction Program

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost of Continuing Program	\$270,000
Appropriation for FY 2006	267,000
Allocation Requested for FY 2007	270,000
Increase of FY 2007 from FY 2006	3,000

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 2007: 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. (Note: Significant funds were used to inspect and evaluate drainage pipes through levees. During recent floods seepage along these pipes showed them to be critical weak points in levee protection systems.) 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

Appropriation Title: Operation and Maintenance – Fiscal Year 2007

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 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.

Appropriation Title: Operation and Maintenance – Fiscal Year 2007

Facility Protection

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost of Continuing Program	\$ 12,000,000
Appropriation for FY 2006	11,880,000
Allocation Requested for FY 2007	12,000,000
Increase of FY 2007 Over FY 2006	120,000

AUTHORIZATION: PL 84-99; PL 93-288; Executive Orders 10480 and 12656 which cite several acts including PL 93-288, the basis for the Federal Response Plan; and Executive Order 13228 which provides for Agency responsibilities regarding Homeland Security.

JUSTIFICATION: In response to the attacks of September 11, 2001, the U.S. Army Corps of Engineers (USACE) evaluated terrorist threat, vulnerability, and consequences at 609 dams, 75 hydropower projects, and 275 navigation locks. From this effort a list of 306 USACE owned and operated critical projects was developed. In FY2002, the Corps completed risk/vulnerability/consequence assessments of all 306 critical projects to identify additional security protection measures directed against terrorist attacks. The list was further refined to 263 based upon additional prioritization considerations. The design and implementation of security upgrades on 85 of these critical projects was initiated in FY2003 with additional supplemental funding. Congress authorized the use of Operations and Maintenance, General funding in FY2004 to continue work on these security improvements along with additional funding under O&M Miscellaneous to assess, design, and construct security improvements at Corps administrative facilities and laboratories, Mississippi River and Tributaries (MR&T) projects, and the Washington Aqueduct. Funds were also authorized for Research and Development (R&D) support, Corps Mandatory Centers of Expertise support, and increased security guard requirements resulting from changes to the Nation's security levels. In FY05 the Corps initiated the design and implementation of security improvements to administration facilities and laboratories.

PROPOSED ACTIVITIES FOR FY 2007: The requested funds will be used to continue security upgrades at administrative facilities and laboratories, develop performance metrics for additional protection upgrades at all USACE projects, initiate waterborne threat risk assessments, initiate cyber risk assessments, continue interagency coordination with the Department of Homeland Security (DHS) and other Dams Sector agencies. Funds will also be used to continue "systems" vulnerability assessments, development of regional monitoring systems, and implement a testing/exercise program at selected projects.

ACCOMPLISHMENTS IN FY2006: Continue security upgrades to administration buildings and laboratories. Finalize the Critical Infrastructure Security Program (CISP) Five Year Strategic Plan. Complete Baseline Security Posture security upgrades at all critical projects. Complete an assessment of alternative risk assessment procedures for projects, administration buildings and laboratory security upgrades. Initiate assessment of reduced risk at critical projects. Continue interagency participation with DHS Dams Sector Government Coordinating Council, STAR report input, and development of the National Infrastructure Protection Plan and Sector Specific Plan for Dams.

Appropriation Title: Operation and Maintenance – Fiscal Year 2007

Great Lakes Tributary Model

SUMMARIZED FINANCIAL DATA:

Estimated Total Program Cost	\$12,500,000
Appropriation for FY 2006	802,000
Allocation Requested for FY 2007	900,000
Increase of FY 2007 from FY 2006	98,000

AUTHORIZATION: Section 516(e), Water Resources Development Act of 1996, as amended by Section 334, Water Resources Development Act of 2000.

JUSTIFICATION: Under Section 516(e) of the Water Resources Development Act of 1996, the Corps is directed to develop sediment transport models for tributaries to the Great Lakes that discharge to Federal navigation channels or Areas of Concern (AOCs). These models 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 support state and local measures that will 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 goals of Executive Order 13340 for Great Lakes Restoration, signed by the President in May 2004 and the recommendations of the Great Lakes Regional Collaboration created under this Executive Order.

PROPOSED ACTIVITIES FOR FY 2007: FY 2007 funds will be used to continue or complete development of models at ten tributaries (Waukegan River, Illinois; Dead River, Michigan; Michigan; St. Louis River, Minnesota; Grand River, Ohio; Cattaraugus Creek, New York; Niagara River, New York; Kinnickinnic River, Wisconsin, and; Fox River, Wisconsin) and continue development of Internet-based modeling tools that may be utilized by local agencies and stakeholders for sub-watershed evaluations. Districts will provide limited, follow-up technical support 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 (or are scheduled for completion in FY06) at the following tributaries (Grand Calumet River, Indiana; Trail Creek, Indiana; Burns Waterway, Indiana; Saginaw River, Michigan; St. Joseph River, Michigan; Clinton River, Michigan; Grand River, Michigan; Nemadji River, Minnesota/Wisconsin; Buffalo River, New York; Genesee River, New York; Augleize River, Ohio; Black River, Ohio; Mill and Cascade Creeks, Pennsylvania; Menomonee River, Wisconsin). 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 contaminated in tributaries to the Great Lakes.

Appropriation Title: Operation and Maintenance – Fiscal Year 2007

Inland Waterway Navigation Charts

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost of Continuing Program	\$5,500,000
Appropriation for FY 2006	3,304,000
Allocation Requested for FY 2007	3,708,000
Increase in FY 2007 from FY 2006	404,000

AUTHORIZATION: PL 85-480, approved 2 July 1958, authorizes the Commander, USACE 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 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, which 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 2007: Begin development of chart coverage for the Missouri River – 650 river miles; complete development for Tennessee River – 650 miles; update features for the Mississippi, Ohio, Red, Arkansas, Atchafalaya, Black Warrior-Tombigbee, Cumberland, Ten-Tom, Illinois, Green, Ouachita, Kanawha, Monongahela Rivers – 6,787 miles; complete development of channel framework for coastal and Great Lakes areas.

ACCOMPLISHMENTS IN FY 2006: New chart development – 773 river miles: Completed initial chart coverage for the Monongahela, Green, and Arkansas Rivers; Chart revisions and updates – 3,517 river miles: Published updated chart cells for the Mississippi, Ohio, Atchafalaya, Black Warrior-Tombigbee, and Illinois Rivers. Compiled coastal channel Framework data.

Appropriation Title: Operation and Maintenance – Fiscal Year 2007

Monitoring of Completed Navigation Projects

SUMMARIZED FINANCIAL DATA:

Estimated Five-Year (FY2006-2011) Program Cost	\$10,000,000
Appropriation for FY 2006	1,404,000
Allocation Requested for FY 2007	1,575,000
Increase of FY 2007 over FY 2006	171,000

AUTHORIZATION: These efforts are absolutely essential in providing data for efficient and effective management of critically important Federal shallow- and deep-draft navigation projects from both national economic and national security standpoints.

JUSTIFICATION: 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 use them to improve all navigation projects' performance. Optimizing projects' performance requires they be monitored upon completion, evaluated against preconstruction projections and present needs, and lessons learned translated into proactive management guidance for Corps Districts. Information gained from Monitoring Completed Navigation Projects (MCNP), 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 improved operational and maintenance efficiencies. Information collected from monitored navigation projects will significantly improve projects' performance and optimize opportunities for environmental enhancement. Information analyzed on a national basis documents successful designs, disseminates lessons learned on projects with documented deficiencies, and provides upgraded field guidance for solutions that will reduce life-cycle costs on a national scale.

Selective and intensive monitoring of Civil Works navigation projects is executed to acquire information to improve project purpose attainment, new design procedures, construction methods, and operation and maintenance (O&M) techniques. Both shallow- and deep-draft navigation projects located in ports, harbors, rivers, reservoirs, lakes, estuaries, and 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 by the US Army Engineer Research and Development Center (Coastal and Hydraulics Laboratory). Navigation projects selected for monitoring all have critical significance to both commercial navigation and strategic military sealift. It is exceedingly important that these pertinent monitoring efforts be enhanced to provide additional knowledge on which to base sound navigation design and rehabilitation decisions.

In addition to satisfying Corps' requirements, the MCNP data are made available through publications and electronic technology transfer, and will be of great value to local, State, and other Federal agencies tasked with the development and implementation of regional and national coastal and inland navigation management policies. Results are communicated immediately to other member agencies of the Marine Transportation System (MTS).

Appropriation Title: Operation and Maintenance – Fiscal Year 2007

PROPOSED ACTIVITIES FOR FY 2007: The program can perform the following activities. Technical Reports (TRs) will be published and disseminated to Corps Field Operating Activities as soon as possible with improved, updated, and enhanced design guidance. At **Kaumalapau Harbor, HI**, wave hindcast will be acquired offshore of the breakwater and wave data collected. Deepwater waves from the hindcast will be transformed into shallow water, and an electronic transformation look-up table will be developed. The first post-rehabilitation onsite inspection of completed breakwater to document the as-built condition will be conducted. In situ non-destructive testing of selected CORE-LOC units placed on the breakwater during rehabilitation will be performed to document strength variations due to aging and location in the wet/dry zones. At **J. T. Myers Locks and Dam, KY**, damage surveys will be conducted to document any additional damage and performance of the FY06 repairs to the lock wall armor. Innovative wall armor repair techniques will be developed and applied to the damaged sections without interruption of navigation operations. New vertical wall armor test strips will be installed using innovative techniques. Photographic and non-destructive testing will be performed to provide durability data for correlation with lock traffic. At **John Day Lock and Dam, OR**, monitoring video, velocity, and discharge data collection will be completed. Video, velocity, and discharge data will be analyzed to understand the mechanism by which hazardous velocity conditions exist at times, due to entrainment of flow from the powerhouse to the spillway as a result of fish passage improvements. A TR will be prepared describing physical and operational changes necessary to alleviate the dangerous navigation conditions under certain river conditions. At **Burns Harbor, IN; Cleveland Harbor, OH; and Keweenaw Waterway, MI**, monitoring data will be obtained and analyzed semi-annually, to evaluate effects of freeze/thaw and wet/dry conditions on scaled-size test armor units. Evaluate present testing methods and protocols to determine breakwater armor stone acceptance methodology more appropriate to large stone units. Prototype monitoring data will be correlated with laboratory analyses of samples from identical quarries. **Periodic Inspections** will publish inspection reports on LIDAR and field inspections of Pacific coastline jetties.

ACCOMPLISHMENTS IN FY 2006: All monitored projects were previously nominated by Corps District and Division offices for inclusion in this MCNP research program. At **Kaumalapau Harbor, HI**, the largest Corps-developed CORE-LOC concrete armor units ever utilized (35 tons) for breakwater stability were used where waves may exceed 30 ft in height. CORE-LOC strength determination was ascertained by destructive and non-destructive testing in the casting yard with follow-up testing on placed armor units. Bottom-mounted internally recording wave gauges were installed after completion of breakwater rehabilitation. At **J. T. Myers Locks and Dam, KY** (as well as other locks along the Ohio and Upper Mississippi River systems), damage to wall armor is a major maintenance problem. Damage survey data were evaluated, identifying damage zones and effects of presence or absence of horizontal and/or vertical armor. Performed state-of-the-art non-destructive testing to evaluate extent of damage. Applied innovative concrete repair technique with minimal impact to lock operation. At **John Day Lock and Dam, OR**, the addition of flow deflectors to improve fish passage may have adversely impacted ability to safely navigate under certain river conditions, due to the entrainment of flow from the powerhouse to the spillway. Specialized equipment for video monitoring was acquired and installed at the structure. Video and periodic discharge measurements were obtained by boat-mounted acoustic doppler profiler equipment during the spill season (time of year when dam is operated) of April through October. Data were accessed for analysis and scientific interpretation. At **Burns Harbor, IN; Cleveland Harbor, OH; and the Keweenaw Waterway, MI** (and at other breakwaters and jetties throughout the Great Lakes region), armor stone deterioration results in exceedingly high rehabilitation and maintenance costs. Present acceptance test methods for large armor stones (up to 42 tons) are identical to tests of concrete stone, and are probably orders of magnitude removed from reality. This study is evaluating effects of scaling by using a range of laboratory samples, and a range of prototype structure test stone sizes cut to uniform dimensions, to develop new acceptance criteria and specifications. Quarry inspections were conducted, and laboratory and prototype stone (index) samples from 12 different quarries around the Great Lakes were acquired for evaluation. Prototype stones were placed on the three designated sites. Monitoring data regarding stone deterioration were obtained quarterly. **Periodic Inspections** of the Hilo, Kahului, Nawiliwili, and Laupahoehoe Harbors, HI, breakwaters were completed and published in TRs. Updated 5 TRs regarding recent knowledge gained from periodic inspections. Surveyed 3 Pacific coastline jetties using LIDAR technology accompanied by field inspections. Developed and populated GIS for Periodic Inspection data, and published related TR. Coordinated with separate work unit revising coastal structure Condition Site Index system

Appropriation Title: Operation and Maintenance – Fiscal Year 2007

National Coastal Mapping Program

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost of Continuing Program	\$7,500,000
Allocation for FY 2006	2,400,000 1/
Allocation Requested for FY 2007	2,400,000
Increase of FY 2007 over FY 2006	0

1/ Centrally funded activity in Fiscal Year 2006.

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: This is the only Federal coastal mapping program that produces operational, physical and environmental data along the coast on a recurring basis. Regional Sediment Management requires regional measuring and monitoring to provide 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 and environmental conditions. 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.

PROPOSED ACTIVITIES FOR FY 2007: The program will complete all of the open coast of Lake Michigan and Lake Superior in the Great Lakes (approximately 1,500 miles of shore) and the open Pacific coasts of Washington and Oregon (approximately 500 miles of shore), producing standardized regional sediment mapping products for Michigan, Wisconsin, Minnesota, Washington, and Oregon. Products will include digital water depths, land elevations, high resolution imagery, shoreline position, sea-bottom type, wetland delineation, submerged aquatic vegetation, water clarity, and land use inventory. These products will be provided for use with GIS based tools to support regional sediment management decisions.

ACCOMPLISHMENTS IN PRIOR YEARS: In the first year of the Corps regional coastal mapping effort, the Corps South Atlantic Division's sandy beaches were mapped (approx 1,300 miles) to support Regional Sediment Management practices using an airborne lidar and photogrammetry systems. A total of 1,300 miles of the sandy coasts of Mississippi, Alabama, Florida, Georgia, South Carolina and North Carolina were surveyed. The Corps coordinated with other Federal agencies (Navy, NASA, USGS, and NOAA) to eliminate duplication and leverage programs to maximize survey coverage. The survey covered from the waterline landward 500 m using topographic lidar and from the waterline seaward using hydrographic lidar. The same area was covered concurrently with very high resolution imagery. Products included seamless digital elevations of the coastal zone, orthorectified imagery, a shoreline position vector, and metadata. These data were distributed to the Corps Wilmington, Charleston, Savannah, Jacksonville, and Mobile Districts. Data were also provided to several States, academia, and industry and to USGS and NOAA where it remains available for download through the NOAA lidar database. The mapping effort was completed six weeks prior to the first storm of the 2004 hurricane season. These data provided the most complete regional data ever collected, including Federal navigation and shore protection projects, immediately prior to four major hurricanes striking Florida and Alabama. As a result of the multi-agency coordination that

Appropriation Title: Operation and Maintenance – Fiscal Year 2007

resulted in the pre-storm surveys, post-storms surveys were coordinated with Navy, NASA and USGS to eliminate duplication. These data were used to assess regional and project hurricane impacts and provided necessary data for planning, engineering, construction and operations. Approximately \$200 million was spent reconstructing shore protection projects based on results determined from these regional coastal mapping data. State, local, industry and academic organizations are using these data for many coastal management applications, projects and programs.

In 2005 approximately 1,000 miles of the sandy beaches bordering the Atlantic Ocean were mapped, including Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Delaware, Maryland, and Virginia with the same approach, producing a variety of digital elevation products for regional sediment management actions in the Corps Norfolk, Baltimore, Philadelphia, New York and New England Districts.

In 2006 approximately 1,000 miles of open lake coasts will be mapped with the same approach used in prior years, producing the same standardized products and information for regional sediment management actions. The surveys will cover Lake Ontario and the New York shore; Lake Erie and the Pennsylvania, Ohio, and Michigan shores; Lakes St. Clair and Huron; and about 200 miles into Lake Michigan and additional Michigan shore. In addition to the physical conditions previously described, new techniques are being developed by teaming with USGS, NOAA, industry, and academia that yield information about the environment. For the first time, a hyperspectral imager will be used operationally to quantify wetlands, submerged aquatic vegetation, sea-bottom type, and land use. This will be the first years where standardized environmental products will be produced for measuring and monitoring regional environmental impacts and changes from our regional sediment management practices.

Appropriation Title: Operation and Maintenance – Fiscal Year 2007

National Dam Safety Program – Portfolio Risk Assessment

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost for Continuing Program	\$6,300,000
Appropriation for FY 2006	4,458,000 1/
Allocation Requested for FY 2007	6,300,000
Increase of FY 2007 over FY 2006	1,248,000

1/ Includes \$247,000 appropriated under Remaining Items and \$4,211,000 funded as a centrally funded activity.

AUTHORIZATION: Dam safety legislation PL 92-367 and PL 99-662, and the National Dam Safety Program Act (Section 215 of PL 104-303) and the Dam Safety and Security Act of 2002 (Public Law 107 – 310).

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 portfolio risk analysis program for all 623 of the Corps dams.

(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, and workshops. 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 and Security Act of 2002 extended the National Dam Safety Program Act appropriation authorization for 5 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. Limited budgets require 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 values of the portfolio risk assessment (PRA) have been demonstrated in two Corps districts as a part of the on-going R&D efforts. In order to expedite the deployment of Corps-wide portfolio risk assessment and to ensure that the results of the regional and districts portfolio provide a consistent basis for setting national priorities, three USACE PRA cadres have been conducting a screening level PRA during

Appropriation Title: Operation and Maintenance – Fiscal Year 2007

fiscal year 2005. The requested funding is to support the activities to complete the screening level PRA and move forward with an in-depth portfolio analysis of the dams that present the greatest risk.

PROPOSED ACTIVITIES FOR FY 2007:

(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. The NDSP fund special briefings for Congressional interests on the safety of dams and the coordination of safety of dams with other federal agencies.

(2) Three USACE PRA cadres and a national PRA manager will manage the Corps-wide PRA efforts. Each PRA cadre is composed of six Corps members (geotechnical, H&H, structural, mechanical, operations, and economist) who will lead, facilitate, and help train the regional group that is doing the PRA. The members of the cadre will be technical experts within their discipline and will be experienced in dam safety, risk analysis, and the application of probability methods to civil works infrastructure. During FY 2007 the cadres will complete the initial screening level PRA of the Corps dams. The procedures for moving to the next level of analysis will be completed and a detail PRA will be completed on the highest risk dams as previously identified by the screening level PRA's. The results of the screening PRA's will be used in the development of study plans for inclusion in the regular budget cycles and the same results will be used in prioritizing requests for remediation. 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 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.

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 FY05 and FY06. This account also supported the Corps response to the 9-11 events in the safety of dams area. The NDSP program 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 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) While the Portfolio Risk Assessment portion of this account is new this year, initial work has been accomplished during FY05 and FY06 as a centrally funded activity. This work included the selection and training of the PRA cadres and the initial screening of 20 percent of the Corps dams. The results of this work are already being used in prioritizing the remediation of dams.

Appropriation Title: Operation and Maintenance – Fiscal Year 2007

National Emergency Preparedness Program (NEPP)

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost of Continuing Program	\$7,000,000
Appropriation for FY 2006	4,950,000
Allocation Requested for FY 2007	5,000,000
Increase of FY 2007 Over FY 2006	50,000

AUTHORIZATION: Executive Orders 10480 and 12656, which cite several acts including The Stafford Act, are the basis for the Federal Response Plan.

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 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 Plan. 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, and for national level emergency water planning. 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, the 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.

The 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. The FCCE, on the other hand, provides preparedness and response related to emergency flood fighting, post-

Appropriation Title: Operation and Maintenance – Fiscal Year 2007

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 mission requirements.

PROPOSED ACTIVITIES FOR FY 2007: The FY 2007 program will provide for continuing the implementation of the National Emergency Preparedness Program. The FY 2007 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. 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 to take the lead in this area. Lessons learned from events such as the Senior Leader Seminar, the National Capitol Region workshop, the New Orleans Catastrophic Hurricane Exercise, 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 and other plans as the New Madrid Earthquake, the South Florida Hurricane, the Southern California Earthquake, the New Orleans Hurricane and other contingencies with national implications. Additional efforts will focus on continuing to strengthen COOP readiness and conducting exercises within the scope of available funding during FY 2007.

ACCOMPLISHMENTS IN PRIOR YEARS: The primary focus during FY 2004 provided support to two major national level civil planning areas: (a) support to the nation's ability to mobilize national assets to meet national/regional level emergencies and (b) support to continuity of government and continuity of operations during national emergencies. A HQUSACE Table-Top Exercise (TTEX) was held in May 2004 in Washington, DC. The format of the TTEX was revised from previous events in that it was not executed as a scenario driven tabletop exercise, but rather as a "HQUSACE Round Table" discussion with a general theme of "Readiness in the USACE 2012 Environment." The primary goal of the HQTTEX was to provide a facilitated forum in which senior HQUSACE staff principals and MSC representatives could work together to ensure continued readiness to respond to any contingency by reviewing preparedness/response roles and expectations; identifying, through focused discussions, critical issues or shortfalls associated with the ongoing implementation of the USACE 2012 organization and new management tools while supporting the Global War on Terrorism and the Initial National Response Plan (INRP). Main topics included USACE 2012, Readiness XXI, New Initiatives e.g., National Response Plan (NRP)/National Incident Management System (NIMS), Catastrophic Incident Response Plan (CIRP), Port Readiness, and USACE Continuity of Operations (COOP). The U.S. Army Corps of Engineers (USACE) and FEMA co-sponsored the 2004 Senior Leaders' Seminar (SLS) in June 2004 in Washington, DC. The SLS used a tabletop exercise format to bring together Federal, State, local and private sector partners for candid, solution-focused discussion about infrastructure related issues from a terrorist incident, looking at both infrastructure protection and recovery. The SLS provided an excellent opportunity for the incident management community at all levels of government and in the private sector to gather to ensure our operations are efficient, effective, and complementary. The seminar also allowed USACE, FEMA and their partner agencies to further build a corrective action program to track the resolution of issues raised at the seminars and in disaster after action critiques. The SLS convened senior policy and operational personnel from selected federal, state and local government agencies and private sector organizations who reviewed and discussed the immediate impacts of recent Department of Homeland Security initiatives on the national response system; discussed current plans and strategies for resolving recovery issues identified in past senior leadership seminars, including disaster housing, contaminated debris management, and infrastructure restoration; and examined the new operational relationships and protocols established by the NRP, particularly in emergency support function areas of Infrastructure, Mass Care, Housing and

Appropriation Title: Operation and Maintenance – Fiscal Year 2007

Human Services and Economic Stabilization, Community Recovery and Mitigation and the Catastrophic Incident Response Annex, to successfully coordinate recovery. Additionally, there have been several exercises with NORTHCOM such as Unified Defense 04 and Determined Promise 04. Seminars, workshops, and exercises, such as mentioned above, strengthen partnerships and promote 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 also provide an excellent opportunity to examine contingency plans, capabilities, and communications at federal, state and local levels. Region-specific issues are also identified and addressed.

Appropriation Title: Operation and Maintenance – Fiscal Year 2007

Navigation Mitigation Projects (Section 111, PL 90-483, as amended)

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost of Continuing Program	\$2,500,000
Appropriation for FY 2006	495,000 1/
Allocation Requested for FY 2007	2,500,000
Increase of FY 2007 Over FY 2006	2,005,000

1/ Funds in the amount of \$495,000 were appropriated in FY 2006 under the Construction account for this work.

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 were shared. 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 by Congress.

PROPOSED ACTIVITIES FOR FY 2007: Funds will be used to continue the Section 111 program of mitigation of shore damages attributable to Federal navigation works.

ACCOMPLISHMENTS IN FY 2006: Funds are being used to continue mitigation efforts.

Appropriation Title: Operation and Maintenance – Fiscal Year 2007

Performance Based Budgeting Support Program

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost of Continuing Program	\$2,727,000
Appropriation for FY 2006	654,000
Allocation Requested for FY 2007	2,540,000
Increase of FY 2007 over FY 2006	1,886,000

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, General Program. 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 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), and Flood Damage Reduction 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 database management, integration, standardization, operation, enhancement, quality control, user assistance, training, compliance with security requirements and CEEIS services. It is reported under OMBIL-Plus in ITIPS and the OMB 300b submittal accounting for \$1,400,000 of the overall OMBIL-Plus costs. With out this program being funded will result in the Corps being unable to have any performance measurement for budgeting, management and the PART.
- b. **Civil Works Performance Measurements:** Work includes improvement of performance measurements to be incorporated into the budget decision-making process; support for the Office of Management & Budget's Performance Assessment Rating Tool (PART) initiative; 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 in accordance with the revised finance and accounting cost codes that now align with the five O&M business processes - navigation, hydropower, flood damage reduction, recreation and environmental stewardship. 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 measurements among projects at all levels helps focus management attention on corrections of program or project deficiencies.
- 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 processes. The relationships and statistics drawn from the data may provide evidence to support an increase in expenditures to improve performance. This task will also develop effective graphics 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.

Appropriation Title: Operation and Maintenance – Fiscal Year 2007

PROPOSED ACTIVITIES FOR FY 2007: Requested FY 2007 funds will provide continuing support of Civil Works O&M integrated information systems; centrally distributed performance measures, outputs and system inventory information; and evaluation of new measures. FY 2007 funds will also support enhanced development of output-oriented performance measures of the incremental return on investment in Corps Civil Works program areas, including acquisition and training in decision-making software. Additional business lines of water supply and enhanced support to flood damage reduction (FDR).

ACCOMPLISHMENTS IN PRIOR YEARS: Included were newly fielded centralized natural resource collection system and user's training in OMBIL data entry and access. The One-stop access for much of Civil Work's budget performance information was expanded for budget submittals in lieu of separate data calls. With fiscal year 2006 funds of \$654,000, the program will be severely curtailed. Funds will be used to continue the activities associated with the Civil Works Business Function Information through mid-year. The Performance Measurements and Business Analysis efforts are not being undertaken in fiscal year 2006.

Appropriation Title: Operation and Maintenance – Fiscal Year 2007

Portfolio Assessment for Water Storage Reallocation

SUMMARIZED FINANCIAL DATA:

Appropriation for FY 2006	0
Allocation Requested for FY 2007	300,000
Increase of FY 2007 from FY 2006 (new program in FY 07)	300,000

AUTHORIZATION: Specific project authorizations; Section 216 of the River and Harbor and Flood Control Act of 1970.

JUSTIFICATION: The National Portfolio Assessment is an appraisal of the portfolio of existing Corps of Engineer multipurpose projects and will be used as a screening tool to identify the best candidates for opportunities for operational changes and/or reallocation opportunities. The Corps currently manages approximately 380 major dams and reservoirs, providing significant flood control, recreation, water supply, environmental and hydropower benefits to all regions of the country. For example, these projects have prevented over \$700 billion in flood damages, hundreds of millions of visitors enjoy these lakes every year through the various recreational opportunities provided and some 7 million acre-feet of storage space in 130 of these projects are currently capable of providing over 3.3 billion gallons of water per day to meet the needs of cities and industries across the nation. Some of these reservoirs, however, may use operating plans that no longer reflect the best comparative net economic and environmental returns for the nation.

The goal of the program is to guide future basin-specific or project-specific funding decisions to insure existing Corps reservoirs contribute to enhance economic and ecosystem values as water demands evolve. The study would be used as a screening tool to examine more productive ways to operate the reservoirs and to use the storage in the best possible manner in recognition of changed conditions, improved science and increased appreciation of environmental values since the projects were constructed, many of them decades ago. Where opportunities are identified, specifically funded follow-up studies will be proposed for the particular watershed, system of projects or project. Army recommends this study as it both supports the goals of the Civil Works' Strategic Plan and is an element of wise stewardship of the Civil Works infrastructure.

PROPOSED ACTIVITIES FOR FY 2007: Funding in the amount of \$300,000 will be used to initiate the program. An initial inventory and assessment of portfolio of Civil Works reservoirs will be prepared. A methodology will be prepared for more intensive analysis and screening of projects in future years, in order to enable identification of the best opportunities for site-specific reallocation studies.

ACCOMPLISHMENTS IN FY 2006: None.

Appropriation Title: Operation and Maintenance – Fiscal Year 2007

Program Development Technical Support (ABS-P2))

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost of Continuing Program	\$300,000
Appropriation for FY 2006	223,000
Allocation Requested for FY 2007	300,000
Increase of FY 2007 over FY 2006	77,000

AUTHORIZATION: The Automated Budget System (ABS) has supported gathering, analyzing and submitting project funding requests to respond to all authorized missions within the Corps Operations and Maintenance program. A new automated information system, P2, will replace ABS for the FY2008 budget process. The transition to P2 from ABS will align all Civil Works budget requests within one automated information system.

JUSTIFICATION: The budget estimate provides for carrying out the following work:

The new AIS, P2 is scheduled to provide the O&M program development capability previously provided by ABS. The transition to P2 from ABS for program development has begun and will continue in FY 2007. Work under this activity for FY 2007 will ensure that all relevant business processes and rules within ABS are incorporated into P2. All O&M project data within P2 will be examined as well. There will likely be changes needed to adjust P2 to support the O&M program development based on the initial experiences with the new 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 rather than ABS tools. The deployment of P2 will shift the efforts here 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 2007: Examine O&M program development as supported by P2 for BY 2008. 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.

Appropriation Title: Operation and Maintenance – Fiscal Year 2007

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:

Estimated Annual Cost of Continuing Program	\$6,365,000
Allocation for FY 2006	5,058,000
Allocation Requested for FY 2007	5,541,000
Increase FY 2007 over FY 2006	483,000

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 USACE serves as the Federal Central Collection Agency, and is the sole U.S. Government source for U.S. domestic and foreign (U.S. foreign waterborne commerce statistics mission transferred to USACE from Census in FY 1999) waterborne commerce and vessel statistics in conformance with the River and Harbor Act of 1922 as amended.

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

Appropriation Title: Operation and Maintenance – Fiscal Year 2007

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 operations 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 Operations 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. This item is reported under OMBIL-Plus in ITIPS and is \$1,600,000 of the total OMBIL-Plus cost.

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 Customs. The Corps is required to collect data on domestic and foreign shippers of waterborne commerce subject to the Harbor Maintenance Tax (HMT) and provide it to Customs for enforcement and audit purposes. Analysis of Harbor Maintenance Trust Fund (HMTF) revenues and transfers is required to validate the adequacy of the HMTF in light of the uncertainty over the legal and international challenges to the HMT, 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 HMT; to analyze alternative funding options; and to assess the economic and competitiveness impacts of other potential funding sources. Therefore the Corps requires a portion of the administrative funding. Funds will also be used to modify computer programs to conform to changes dictated by Customs' Automated Commercial Environment. This item is reported in OMBIL-Plus in ITIPS and is \$344,341 of the total OMBIL-Plus cost.

FUNDING PROFILE

	<u>Actual FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
(d) Harbor Maintenance Fee Data Collection	\$ 608,000	\$ 541,000	\$ 725,000
(a) Protection, Clearing, and Straightening of Channels	\$ 50,000	\$ 44,000	\$ 45,000
(b) Removal of Sunken Vessels	\$ 500,000	\$ 767,000	\$ 500,000
(c) Waterborne Commerce Statistics	\$ 4,271,000	\$ 3,706,000	\$ 4,271,000
TOTAL	\$ 5,429,000	\$ 5,058,000	\$ 5,541,000

PROPOSED ACTIVITIES FOR FY 2007: Provide navigation project output data for FY 2009 budget formulation. Perform operations, maintenance and necessary enhancements of nation's waterborne commerce, vessel and shipper data and statistics programs. Work with shippers and carriers to insure enhanced operations at a minimum level of burden. Assist Customs with the development of their Customs Modernization Program to ensure that the Corps' foreign waterborne transportation data needs will be met by the new Automated Commercial Environment/International Trade Data System. Work with other Federal agencies and industry to design a new modern, comprehensive automated domestic waterborne data collection system.

Appropriation Title: Operation and Maintenance – Fiscal Year 2007

ACCOMPLISHMENTS IN PRIOR YEARS: Within constrained budgets worked to maintain FY 2005 data quality and completeness. Provided navigation project output data for FY 2008 budget formulation. Worked with Federal partners, such as U.S. Customs and with industry to ensure data continuity. Emphasized automation of domestic data reporting. Removed the sunken vessel "State of Pennsylvania" from the Christina River in Delaware in accordance with Appropriation Act language.

Appropriation Title: Operation and Maintenance – Fiscal Year 2007

Recreation Management Support Program (RMSP)

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost for Continuing Program	\$1,900,000
Appropriation for FY 2006	1,426,000
Allocation Requested for FY 2007	1,600,000
Increase of FY 2007 over FY 2006	174,000

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 \$12 billion annually to engage in recreation at Corps projects; over 500,000 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 to assist in conducting 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 for visitation collection and analysis, fee collection and reporting, economic analysis, inventory, 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. The Team 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.

Appropriation Title: Operation and Maintenance – Fiscal Year 2007

PROPOSED ACTIVITIES FOR FY 2007: Minimum/Recommended Program: 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 quantify 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: Recreation Program Performance Improvement Initiative, Recreation Entrance Fee Policy Development, Partnerships Demonstration Program, Water Safety, Career Development etc. Support will be provided to Headquarters Recreation program staff regarding strategic planning, development of program evaluations and other high priority Headquarters initiatives. Capability Program: Accelerate development of tools for field managers to implement the Recreation Program Performance Improvement Initiative (RPPII).

ACCOMPLISHMENTS IN FY 2006:

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 Gateway also provides information to the public about outdoor recreation opportunities on Corps projects and is integrated with RecreationOneStop resources. 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.

Appropriation Title: Operation and Maintenance – Fiscal Year 2007

Regional Sediment Management Program (RSM)

SUMMARIZED FINANCIAL DATA:

Estimated Total Program Cost	\$15,000,000
Allocation for FY 2006	8,415,000
Allocation Requested for FY 2007	1,391,000
Decrease of FY 2007 from FY 2006	7,024,000

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 projects with one another, coordinate management activities with other Federal agencies, State, and local governments, and leverage data collection within regional 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 management of sediments from a regional perspective.

PROPOSED ACTIVITIES FOR FY 2007: All Corps Division Offices (within the U.S.) will continue implementation of regional sediment management initiatives at the Division level and through their respective District offices and formalize processes through Program Management Plans. The program will continue to focus on fostering stakeholder relationships and educating through online knowledge sharing and technology access. The program will establish a national RSM eGIS team to provide leadership in continuing development and implementation of an enterprise GIS and tools for data analysis and decision making. The program will also focus on developing comprehensive regional sediment management strategies to guide investment decisions and present the economic, environmental, and social benefits achieved through RSM. Information and capabilities will be disseminated via online training, onsite workshops, and websites.

ACCOMPLISHMENTS IN FY 2006: Fiscal Year 2006 are being used to continue the base RSM efforts and specific activities included in the Appropriations Act conference report. The base program includes: a sediment needs assessment (New York District) that will (1) compile information on dredging and placement activities by all levels of government and private concerns to define where sediment is currently being moved, and (2) compiling information on where, and by whom, sediment will be needed in the future; a study to investigate environmentally, economically, and technically feasible methods to bypass sediment in the vicinity of Cape May Inlet, NJ (Philadelphia District); conducting a Regional Sediment Management Summit (New England District) to bring together representatives from all relevant Federal and state agencies, non governmental organizations, and interested stakeholders to identify RSM opportunities in the New England states; a study to characterize the physical and biologic habitats of the Lower Snake River Watershed (Walla Walla District) that will be utilized in the District's long-term Programmatic Sediment Management Plan; the development of a Wrightsville Beach to Carolina Beach and Inlet Management Plan (Wilmington District) that will use available data to develop a sediment budget for the region; and a detailed evaluation of up to fifty existing Beneficial Use projects to characterize ecosystem and life-cycle benefits that accrue from effectively managing dredge material placement (Galveston District).

Appropriation Title: Operation and Maintenance – Fiscal Year 2007

Other specific efforts within the RSM program for fiscal year 2006 include:

Fletcher Cove, Solana Beach, California: The Los Angeles District will develop long-term management strategies for controlling sediments at Fletcher Cove in the City of Solana Beach. Each strategy shall (1) include assessments of sediment rates and composition, sediment reduction options, dredging practices, long-term management of any dredged material disposal facilities, remediation of such facilities, and alternative disposal and reuse options; (2) include a timetable for implementation of the strategy; and (3) incorporate relevant ongoing planning efforts, including remedial action planning, dredged material management planning, harbor and waterfront development planning, and watershed management planning.

Southeast Coast of Oahu, Hawaii: The Honolulu District will continue coastal engineering investigations and computer modeling for this region to (1) document long-term trends in wave climate, (2) develop a regional sediment budget and geographic information system for the littoral cells located within the region, (3) identify suitable sand sources, (4) develop/calibrate a regional coastal processes model for the southeast coast of Oahu, Hawaii, and (5) coordinate study findings as they pertain to potential RSM projects at Kaupo Beach, Bellows Air Force Station, Lanika and Ka'elepulu Stream.

Littoral Drift Restoration Program, Benson Beach, WA: The Portland District will continue processing 5-year duration environmental documents and clearances for two possible methods of placement of material directly on Benson Beach. Conduct a peer review of the sump placement alternative and continue to utilize the ARGUS camera system to obtain baseline information Benson Beach shore face dynamics.

Lido Key, Sarasota, and vicinity and central and southern Brevard County to Dade: The Jacksonville will continue development and utilization of the eCoastal GIS database, which is a regional coastal database that is used between Districts to store, exchange and analyze survey/environmental/photographic and other data. The district will continue to populate the database with historic data in order to share data that has been collected, to reduce duplication of efforts, and to provide a solid source of information for analysis. In addition, district will refine the southwest Florida Sediment Budget by focusing on Big Sarasota Pass as a potential borrow area for shore protection projects in the area and further defining the coastal processes within this area by incorporating the cross-shore sediment transport effects on the littoral environment. Initiate the continuation of the next Sediment Budget to encompass the Central Atlantic region of the state to be utilized in the management of the sand throughout the region. Coordinate with DEP to begin public workshops involving RSM in the Central Atlantic region.

South Jetty and Clatsop Spit, Oregon: The Portland District will complete analysis of alternatives and long-term strategies for managing sediment in the South Jetty and Clatsop Spit region. Studies will be undertaken to determine if placement of dredged material near the South Jetty and Clatsop Spit area will have beneficial effects in protecting the south jetty of the Mouth of the Columbia River.

Coastal zone mapping and imaging laser, University of Southern Mississippi: The Mobile District will develop new integrated capability to measure and monitor coastal zone physical and environmental characteristics on a regional scale to support Regional Sediment Management and O&M of Federal Projects. Work activities will be contracted with the University of Southern Mississippi and others to design systems and lasers to create new models and tools to produce regional sediment management products. Their main efforts will be the development of ocean optics algorithms, integration of the data processing system, and system and test evaluation.

Appropriation Title: Operation and Maintenance – Fiscal Year 2007

Reliability Models Program For Major Rehabilitation

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost for Continuing Program	\$650,000
Appropriation for FY 2006	599,000
Allocation Requested for FY 2007	608,000
Increase of FY 2007 from FY 2006	9,000

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 2007: 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 for reliability models for timber piles and crib walls for navigation structures. 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.

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, 18 rehabilitation workshops have been conducted in the last 10 years to provide assistance 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 aided in the Major Rehab Program justification. Two rehabilitation workshops were conducted.

Appropriation Title: Operation and Maintenance – Fiscal Year 2007

Stewardship Support Program

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost for Continuing Program	\$750,000
Appropriation for FY 2006	\$500,000 1/
Allocation Requested for FY 2007	500,000
Increase of FY 2007 from FY 2006	0

1/ Centrally funded activity in Fiscal Year 2006.

AUTHORIZATION: This program is conducted under the authority of ER 1130-2-540, Chapter 7.

JUSTIFICATION: The Stewardship Support Program 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 will be 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 our work.

PROPOSED ACTIVITIES FOR FY 2007:

1. Focused Management Actions and Studies: A national assessment of environmental threats that impact environmental stewardship is needed. This assessment would identify the level threat experienced by projects from, for example, invasive species, shoreline erosion, or adjacent land uses. This assessment would assist in prioritizing work efforts and funding for stewardship. In addition, a study to determine

Appropriation Title: Operation and Maintenance – Fiscal Year 2007

benchmarks for various costs related to stewardship activities is needed in order to adequately compare work efforts in budgeting and performance output efforts.

2. **Policy Guidance and Management Support:** Policy guidance development is needed to support inventory and master plan implementation. Inventories and Master Plans are the focus of two of the Environment-Stewardship strategic goals. Specific guidance is needed to assure common understanding of their requirements and to assure a level of standard output is achieved. Stakeholder outreach tools are recommended to achieve a greater level of stakeholder and customer input in program implementation. A survey, specific to the Environment-Stewardship program, is planned to identify areas of needed management and customer satisfaction improvement. Continued development of the budget evaluation tool, E-S BEST, is essential to improve the Environment-Stewardship budget development process. Refinement of this tool is critical to assist in prioritizing proposed budget packages and developing various budget scenarios to improve the efficiency and effectiveness of the Stewardship program. Strategic planning is also required in order to accomplish the CW strategic goals. The Environment-Stewardship program requires the update of its program strategic plan in order remain in accord with the CW strategic objectives and to assist in accomplishing the CW program goals.
3. **Information exchange.** NRM Gateway development in support of Environment-Stewardship initiatives in necessary and should continue. This information exchange tool is designed improve communication within the NRM community and preserve the organization's institutional knowledge. Stewardship components of the NRM Gateway will be developed in priority order based on input from the Stewardship Advisory Team (SAT). Technology transfer of best management practices is also required. Best management practices related to inventory implementation; the management of riparian resources, and significant resources such as native prairie lands will be developed and shared. Support for SAT will be provided to facilitate team meetings and other SAT initiatives.

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 2006. 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, the program management plan for the Environment-Stewardship Community of Practice, and the annual Environment- Stewardship program development guidance.

Appropriation Title: Operation and Maintenance – Fiscal Year 2007

Water Operations Technical Support (WOTS)

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost for Continuing Program	\$1,500,000
Allocation for FY 2006	582,000
Allocation Requested for FY 2007	653,000
Increase of FY 2007 from FY 2006	71,000

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 2007: 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, field demonstrations (which are anticipated to expand significantly in FY 2007), information bulletins, technical notes, executive notes, technical reports, miscellaneous papers, instruction manuals, videos, meetings, seminars, briefings, congressional testimony, and the Internet.

ACCOMPLISHMENTS IN FY 2006: Since its inception in FY 1985, WOTS has provided environmental and water quality technological solutions to over 1,450 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 2006, the WOTS program successfully responded to 50 direct technical assistance requests from 26 Corps Districts, conducted 6 training workshops on environmental and water quality management techniques, conducted 2 technology evaluation efforts to verify management strategies and techniques, and prepared 5 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 2007

OPERATION AND MAINTENANCE
Fiscal Year 2007 Centrally Funded Activities

SUMMARY PAGE:

UNDERLYING PRINCIPLE. Statement of Managers (H.R. Conf. Rep. No. 109-275) page 110 states that centralized management of project funds is efficient and is allowed under current guidelines for certain activities. Significant cost savings can be realized from funding these activities centrally by withholding the necessary amounts from the affected projects' appropriations prior to allocation. It is critical that cost efficient management strategies be employed by the Corps in accomplishing its mission at least cost, when such strategies support the appropriated program. The costs of these activities are identified in the data justification sheets that follow.

SUMMARIZED FINANCIAL DATA:

Natural Resources activities:

National Natural Resources Management Activities	\$ 3,275,000
RecreationOneStop (R1S)- National Recreation Reservation Service (NRRS)	\$ 900,000

Navigation activities:

Optimization Tools for the Navigation Program	\$ 250,000
---	------------

AFFECTED PROJECTS FROM WHICH NECESSARY FUNDS WILL BE WITHHELD. Funds for the Natural resources activities would be funded from those projects within the Recreation business line within all program activities. Funds for the navigation activities would be funded from those projects within the Channels and harbors program activity.

APPROPRIATION TITLE: Operation and Maintenance -- Fiscal Year 2007

National (Multiple Project) Natural Resources Management Activities 1/

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost for Continuing Program	\$5,000,000
Allocation Requested for FY 2006 (From centrally funded activities)	3,273,000 1/
Proposed Allocation for FY 2007 (From centrally funded activities)	3,275,000
Increase of FY 2007 from FY 2006	2,000

1/ FY 2006 also included an additional \$500,000 for the Stewardship Support Program which is proposed as a Remaining Item for FY 2007, thus total centrally funded amount in FY 2006 is \$3,773,000. Presentation above allows better comparison of FY 2006 and FY 2007 efforts.

PROPOSED ACTIVITIES FOR FY 2007:

Fiscal year 2007 efforts on the Nationwide (multiple-project) activities utilizing cost efficient management strategies include the following and similar activities: Career Assignment Program for Operations Project Managers; Challenge Partnership Seed Funds; Critical Incident Stress Management (CISM) Program; Environmental Management System (EMS) Implementation; Natural Resources Management Awards; Natural Resources Management Career Development/Training Support and Material; Operations Community of Practice Gateway; Park Ranger/Manager Uniforms; Partnership Committee Property Protection Program; RecBEST Coach, Assist and Train Team; Recreation Facilities and Customer Service Standards National Operations Center (NOC); Visitor Center Initiative/Corps Story; and, Water Safety Program.

RecreationOneStop (R1S)– National Recreation Reservation Service (NRRS)

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost for Continuing Program	\$1,000,000
Allocation for FY 2006 (From centrally funded activities)	900,000
Proposed Allocation for FY 2007 (From centrally funded activities)	1,000,000
Increase of FY 2007 from FY 2006	100,000

PROPOSED ACTIVITIES FOR FY 2007: Costs for the Corps participation in RecreationOneStop include:

- 1) payment to the USDA Forest Service for the Corps portion of joint agency costs to operate the program and administer the contract (\$600,000),
- 2) payment to the Department of Interior for services as Managing Partner of R1S (\$50,000), and
- 3) costs to administer the NRRS within the Corps as a nationwide activity (\$350,000). Corps administration costs include salary, travel and per diem for a team of field individuals who represent and provide assistance to project personnel, including a Contracting Officer's Technical Representative, and technical support, including training, for system required hardware and software. In addition, telecommunications support for the system is included in this item.

APPROPRIATION TITLE: Operation and Maintenance -- Fiscal Year 2007

Optimization Tools for the Navigation Program

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost of Continuing Program	\$ 250,000
Allocation in FY 2006 (From centrally funded activities)	250,000
Proposed Allocation for FY 2007 (From centrally funded activities)	250,000
Increase of FY 2007 over FY 2006	0

PROPOSED ACTIVITIES FOR FY 2007: Proposed FY 07 funds of \$250,000 will be used to continue ongoing vessel model hull and A-frame planning and construction in collaboration with ERDC, NAVSEA-CARDERO, and the Naval Academy in Annapolis, Maryland, and for the exchange, coordination, and technical support for both the vessel motion unit and the research and reference database being assembled for U.S. naval vessel requirements. FY 07 funds will also support continued linkage of IWR, ERDC and CARDERO activities with the computerized application known as CADET. Funds will also be used to support efforts by the Waterborne Commerce Statistics Center to develop bridging software programs to link foreign trade databases with vessel characteristics databases.

INFORMATION TECHNOLOGY INVESTMENTS

Information Technology Initiatives	FY 2007 Civil Works Requirement
Financial Management Services Program	
COE Enterprise Management Information Systems (CEEMIS)	400,000
COE Financial Management Systems (CEFMS)	<u>7,800,000</u>
Subtotal	8,200,000
Automated Personal Property Management System	
Automated Personal Property Management System	400,000
Subtotal	400,000
Corps Water Management System	
Corps Water Management System (CWMS)	<u>2,100,000</u>
Subtotal	2,100,000
Facilities and Equipment Management System	
Facilities and Equipment Management System (FEM)	<u>5,400,000</u>
Subtotal	5,400,000
Enterprise Geospatial	
Enterprise GIS (eGIS)	500,000
National Inventory of Dams	300,000
Bridge Inventory System	40,000
Subtotal	<u>700,000</u>
Emergency Preparedness and Response Program	
Deployable Tactical Operations System (DTOS)	2,100,000
ENGLink Interactive (ENGLINK)	<u>2,600,000</u>
Subtotal	4,700,000
Operations & Maintenance Business Info Link PLUS	
Operations & Maintenance Business Info Link PLUS (OMBIL)	<u>4,400,000</u>
Subtotal	4,400,000

PROMIS Phase II		
	PROMIS Phase II (P2)	<u>7,100,000</u>
Subtotal		7,100,000
Resident Management System		
	Resident Management System (RMS)	<u>1,200,000</u>
Subtotal		1,200,000
Science and Engineering Technology Program		
	Automated Engineer Tools (AET)	30,800,000
	Equipment Manual (EP1110-1-8)	100,000
	Computer Aided Cost Engineering Systems (CACES)	500,000
	Design Review and Checking System (DRCHECKS)	300,000
	Computer Aided Structural Engineering	<u>800,000</u>
Subtotal		32,500,000
Real Estate Management Program		
	Real Estate Corporation Information System (RECIS)	100,000
	Real Estate Management Information System (REMIS)	2,100,000
Subtotal		2,200,000
Knowledge Management Environment		
	Knowledge Management Environment	<u>1,900,000</u>
Subtotal		1,900,000
Information Technology (IT) Infrastructure and Office Automation Program		
	CE of Engineers Enterprise and Information Services (CEEIS)	23,200,000
	Information Assurance (IA)	<u>7,900,000</u>
Subtotal		31,100,000
Office Automation and Communications		
	Headquarters	6,400,000
	Lakes and Rivers Division	15,000,000
	Mississippi Valley Division	30,000,000
	North Atlantic Division	22,000,000
	North Western Division	25,000,000

	Pacific Ocean Division	3,000,000
	South Atlantic Division	25,000,000
	South Pacific Division	17,000,000
	South Western Division	13,000,000
	Engineer Research and Development Center	10,000,000
	Institute for Water Resources	3,000,000
	Huntsville Center	3,500,000
	Transatlantic Center	1,100,000
	Other Field Operating Activities	<u>6,000,000</u>
Subtotal		180,000,000
Small/other projects		
	Arch-Engr Contract/Constr Contract Appraisal System (ACASS/CCASS)	200,000
	Corps of Engineers Automated Legal System (CEALS)	200,000
	Information Technology Investment Portfolio System (ITIPS)	100,000
	Vehicle Information Management System (VIMS)	200,000
	Corps Enterprise Architecture (CeA)	200,000
	Natural Resources Management Gateway	300,000
	Recreation One Stop	1,300,000
	Inland Electronic Navigation Chart (IENC) Program.	4,000,000
	Volunteer.Gov	<u>10,000</u>
Subtotal		<u>6,500,000</u>
Total		289,500,000