# Department of the Army U.S. Army Corps of Engineers Civil Works Program Five-Year Development Plan

Fiscal Year 2009 to Fiscal Year 2013



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## **Executive Summary**

This Five-Year Development Plan (FYDP) places the Fiscal Year (FY) 2009 budget into a longer term context. This context is important because most Corps studies build off the previous years' budget and require multi-year investments. This report presents projections of discretionary budget authority for the Army Civil Works program for FY09 through FY13. Two funding scenarios are presented: A Base Plan Scenario and an Enhanced Plan Scenario. The Base Plan consists of the President's FY09 budget and its out-year funding stream. The Enhanced Plan is derived from FY08 appropriation and a growth rate necessary to assure constant purchasing power. The base plan ranges from \$4.7 billion in FY09 to \$4.4 billion in FY13. The enhanced plan ranges from \$5.7 billion in FY09 to \$6.1 billion in FY13.

#### There are three main sections in this report:

1) Introduction: This section describes the eight Civil Works funding accounts: Investigations; Construction; Operation and Maintenance; Mississippi River and Tributaries (MR&T); the Regulatory Program; Formerly Utilized Sites Remedial Action Program (FUSRAP); Flood Control and Coastal Emergencies (FCCE), and Expenses.

These funding accounts supports eight business programs, plus the oversight, executive direction and management function. The eight programs are: Navigation, Flood and Coastal Storm Damage Reduction, Environment, Recreation, Hydropower, Water Supply, Emergency Management, and the Regulatory program. These programs are influenced by various Corpwide initiatives such as the Strategic Direction (in both the Campaign Plan and the Civil Works Strategic Plan) and Actions for Change.

2) Business Program Summaries: For each business program, the report discusses accomplishments, future challenges, project spotlights and the business programs funding and performance under the historical, base, and enhanced funding. The Civil Works Strategic Goals, Objectives, and Strategic Direction impact program and project priorities. The report describes the performance objectives that influence each business program under the two funding scenarios.

This document attempts to relate performance and budgets. With base funding, the programs cannot keep up with inflation. This creates problems with maintaining the FY09 performance. Activities are eliminated or reduced to fit the budget. The enhanced budget allows most programs to maintain the status quo and to continue with improvement.

The three largest programs are, in order: Navigation, Flood and Coastal Storm Damage Reduction, and Environment. Navigation receives the large portion of funding, between 36 and 40 percent of base funding during the five year period. Flood and Coastal Storm Damage Reduction receives 22 to 27 percent of base funding. Navigation, Flood and Coastal Storm Damage Reduction, and Hydropower are facing similar circumstances in the sense that all are

dealing with aging infrastructure. The programs are undertaking risk assessments to prioritize activities and manage infrastructure.

Environment receives about 11 percent and is broken into Aquatic Ecosystem Restoration, Environmental Stewardship, and Formerly Utilized Sites Remedial Action Program (FUSRAP). The Aquatic Ecosystem Program is the newest addition to Civil Works. The South Florida Everglades Ecosystem Project is the largest funded construction project. The Louisiana Coastal Area Ecosystem Restoration Project is the largest investigation study; however, in the out-years, funding will be necessary to implement study recommendations.

3) Appendix: The appendix contains more detailed tables. Projects and projected funding levels are listed for both the Base and Enhanced Scenarios. The projects are broken down by state in separate tables by Investigations, Construction, and Mississippi River and Tributaries. Additionally, tables are included that demonstrate additional Studies, Preconstruction Engineering and Design, and Construction projects that could utilize funds if available. Finally, this section also includes a table illustrating the ongoing projects in the Continuing Authorities Program.

## Introduction

#### The U.S. Army Corps of Engineers is moving forward . . .

In this new Five-Year Development Plan, strategy will shape the Army Civil Works budget. This document forges a stronger connection between: 1) strategic thinking and planning, as revealed in the Fiscal Year 2004 to 2009 Civil Works Strategic Plan; and 2) the execution of our program, as described and detailed in the FY09 through FY13 programs. The near-term decisions embodied here will be made within a framework that includes long-term goals and aspirations. We will use our strategies to inform and shape the budget and the business of the Corps.

## Mission

It is the <u>mission</u> of the U.S. Army Corps of Engineers Civil Works Program to:

Contribute to the national welfare and serve the public by providing the Nation and the Army with quality and responsive

- Development and management of the nation's public water resources
- *Protection, restoration, and management of the environment*
- Disaster response and recovery
- *Engineering and technical services*

...in an environmentally sustainable, economic, and technically sound manner through partnerships.

Our mission commits the Corps to study, plan, construct, respond, restore, build partnerships, inform the public, and monitor the nation's water resources. We provide safe and reliable waterways; protect people, homes, and communities from flooding and coastal storms; restore and protect the environment; provide power to homes and communities; provide educational and recreational opportunities; prepare for natural disasters and act when disaster strikes; ensure water supplies; and much more.

#### How do we conduct our mission?

Our Civil Works mission is implemented through eight business programs:

- Navigation
- Flood and Coastal Storm Damage Reduction
- Environment
- Hydropower
- Regulatory
- Recreation
- Emergency Management
- Water Supply

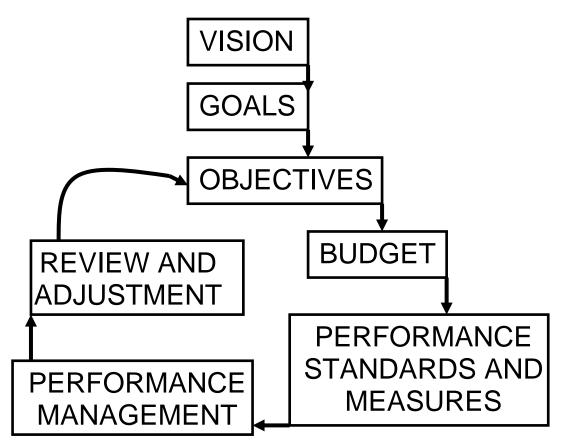
Although these business programs provide the framework for our five year budget, it is important to understand that many of our activities transcend single business programs and generate multiple water resource benefits. Moreover, business programs and activities are no longer managed in isolation nor confined in scope. The eight business program managers seek comprehensive, collaborative, and sustainable solutions blurring the traditional business program definitions. It is impossible to plan any program without considering the others.



Be the Nation's engineering leader in delivering comprehensive, collaborative, and sustainable solutions to public water resources needs.

Our vision builds on the bold initiative introduced in our last strategic plan to promote a holistic, system approach to defining and solving America's water resources problems in collaboration with a large community of water resources stakeholders. The "Watershed Approach" is often the appropriate system to frame the problems we are addressing. It represents a way of viewing our work and world that is expansive so that water resources solutions are more comprehensive and lasting. Central to the watershed approach is our ability to examine the connections among the physical, natural, and human components, and recognize that actions in one part of the system have repercussions throughout. We strive to understand the interdependencies between natural and man-made systems and to attempt to balance the needs of the many users of water within the system. This is not an easy task, and the Corps cannot do it alone. It will only be accomplished through collaboration with a broad range of stakeholders dedicated to finding sustainable solutions to water resources problems.

Our vision leads to setting strategic goals and objectives. The strategic goals were derived from balancing input listening sessions, Corps priority missions and resource constraints.



The Relationship between the Strategic Framework, Budgeting and Performance Management

## Civil Works Strategic Goals

- 1. Provide sustainable development and integrated management of the Nation's water resources.
- 2. Repair environmental degradation and prevent future environmental losses.
- 3. Ensure that projects perform to meet authorized purposes and evolving conditions.
- 4. Reduce vulnerabilities and losses to the Nation and the Army from natural and man-made disasters, including terrorism.
- 5. Be a world-class public engineering organization.

## Strategic Objectives

#### The Civil Works Strategic Objectives flow from each of these Strategic Goals:

#### **Objectives for Goal 1:**

- **1.1** Better balance of economic, environmental, and quality of life objectives
- **1.2** Support the formulation of system and watershed solutions to water resource problems
- **1.3** Reduce backlog of ongoing construction projects

#### **Objectives for Goal 2:**

- **2.1** Restore degraded, significant ecosystem structure, function, and process to a more natural condition
- 2.2 Protect the nation's wetlands and prevent degradation from future development
- **2.3** Assist in the cleanup of hazardous waste sites as authorized or requested by others

#### **Objectives for Goal 3:**

- **3.1** Improve the efficiency and effectiveness of existing Corps water resource projects.
- 3.2 Address the operations and maintenance (O&M) backlog

#### **Objectives for Goal 4:**

- **4.1** Prepare and provide for rapid, efficient, and effective all-hazards response and recovery
- **4.2** Improve the safety and security of critical water resources infrastructure

#### **Objectives for Goal 5:**

- **5.1** Be a world-class technical leader
- **5.2** Improve budgeting and financial performance
- **5.3** Become a more efficient and effective organization through technology

The Civil Works Strategic Goals and Objectives directly apply to several business programs and influence all others. Furthermore, each business program breaks these down and defines unique performance objectives and goals. Performance Measures are the business programs' performance objectives and budget effectiveness.

For example, the Flood and Coastal Storm Damage Reduction Business Program specified "<u>Strategic Objective 1.1.2</u>: *Invest in flood and coastal damage reduction solutions when benefits exceed the costs.*" This program's main performance measure is the 'damages prevented by projects'. Other performance measures such as 'net economic benefits', 'presence of dam safety, seepage, or static instability problems', 'risk index', 'presence of outputs from other business programs'; and 'watershed management principles included in project formulation' correlate with the program's and Corps' mission, vision, goals and objectives.

Crossovers among business programs increase the budget and performance complexity. Most programs affect aspects of other programs. For example, a navigation lock and dam could provide hydropower, water supply, and recreation. The Flood and Coastal Storm Damage Reduction program would manage a flood storage reservoir that may also provide storage for water supply. The emergency management program prepares to protect levees threatened by extreme events, as well as to repair damages caused by such events. The Corps has recognized

these co-dependencies between programs; and attempts to set objectives, plan and budget accordingly.

#### Past Performance Reviews Have Led to Corps Directional Changes

The Corps reviews its performance and appropriations each year and considers necessary adjustments to future budgets and practices for each program and for the organization as a whole. Often, this review leads to small adjustments that can be easily applied in the next year. Occasionally, annual performance problems lead to considering new Strategic Objectives for the next Strategic Plan. At other times, major short-term and long term management changes are demanded. For example, the Actions for Change arose from lessons learned from Hurricanes Katrina and Rita in 2005. The Corps is learning, and evolving to better meet its missions.

#### **Actions for Change**

The Chief of Engineers announced the Actions for Change (AFC) in August 2006 based on lessons learned from Hurricanes Katrina and Rita. The goals of these actions are to improve public safety and the performance of the Nation's water resources infrastructure by transforming the Corps planning, design, construction, and operation and maintenance principles and decision-making processes. As such, AFC will have a positive effect on the Corps' major business programs. The AFC address four themes: Comprehensive Systems Approach, Risk Informed Decision Making, Communication of Risk to the Public, and Professional and Technical Expertise.

With limited resources, the Corps initiated AFC in FY07 and FY08 by addressing priority areas such as levee safety and I-walls, and developing risk-based tools to characterize and assess hurricanes from an engineering perspective. The FY09 request includes about \$14 million from three appropriations accounts: investigations, construction, and operations and maintenance. Delivery of priority products depends on out-year funding levels.

#### **Watershed Approach**

In many cases, the watershed is the appropriate system to assess problems and formulate and manage projects. Applying the Watershed Approach, where the Corps will work with others within a hydrologic basin to provide sustainable development and integrated management, is key to achieving our current Strategic Plan. Congress provided funding for five studies in FY06 to allow us to show what we can accomplish in this arena without cost-sharing constraints. These studies cut across the business programs. When these studies are completed, we will apply lessons learned and propose future studies and management initiatives in the out years. These particular studies are not included in FY09-FY13 budgets, but lessons learned will inform the conduct of future programs. Some early accomplishments in the 5 Watershed Studies are listed below.

 Middle Mississippi Corridor (in Illinois, Mississippi, Kentucky): increased coordination and communication resulting in better information sharing, more partnering and leveraging of dollars

- **Virgin River** (in Nevada, Utah and Arizona): brought together stakeholders throughout the watershed for first time; developed shared strategies/implementation plan for major issues; collaborated with the Natural Resources Conservation Service.
- Western States: Western States Water Council (WSWC) was established by Western Governors Association in 1965. The Corps and WSWC executed the Shared Vision Partnership Agreement in October 2006. A multi-agency group was tasked to conduct an assessment of ground/surface water data gathering and data gaps; to develop a pilot strategic plan to enhance drought preparation; to undertake a pilot study with State of California and the Bureau of Reclamation on reservoir operating rules to accommodate snow pack runoff and flood damage reduction.
- Great Lakes Habitat Initiative: developed accessible databases utilizing a Global Information System (GIS) and simple internet mapping tools to facilitate implementation of high value ecosystem restoration projects. Partners contributed substantial in-kind resources, and this initiative supports Great Lakes Regional Collaboration.
- **Delaware River Basin**: conducted in conjunction with the Delaware River Basin Commission, this effort led to creating a GIS database for the region and accomplished significant data collection. This effort brought Federal/State/local interests to the table to discuss complex water issues (flood damage reduction, water supply, flow management) facing the region during the next 30 years.

In addition to the unique watershed studies described above, there are multiple projects listed in the tables accompanying this Five-Year Plan that employ the watershed approach and serve multiple objectives. They are assigned to specific business programs, yet they are using a systems approach, collaborating with stakeholders, and their benefits and impacts spill over into other areas. Thus, the lines dividing Corps work into the eight Business Programs are becoming blurred, and in some cases disappearing. Many projects are already taking a broader approach to solving water resource problems. Here are a few examples.

The South Florida Everglades Ecosystem Restoration Project is a massive effort to restore water flows to the natural environment, but does a lot more than restore ecosystems. It also maintains flood damage reduction and provides for future water supplies as joint products.

The Napa River Project in California is technically a flood damage reduction project, and it includes the typical channel modifications, levees, bridges, pumping stations, and flowage easements. But it also includes restoration of over 730 acres of scarce San Francisco Bay estuary habitat, which also serves as a floodway.

The California Coastal Sediment Master Plan is another example of the systems approach in action. The plan will be based on a study whose area encompasses the entire California coastline, including the nearshore ocean environment and the coastal watersheds. Shoreline erosion affects 86% of this coastline, and navigation and shoreline structures, along with implementation of water control projects, have contributed significantly in affecting total yield and movement of sediments to and along the coast. The study will evaluate 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 possibly using material dredged from ports and harbors as a regional source of sediment.

#### **Budgeting for Performance**

Most of the business programs manage projects. We will begin project management initiatives in FY09 and continue them in the out years in order to improve performance. Examples include: minimizing reprogramming, reducing carry-over funds, and fully funding smaller contracts.

#### **Climate Change**

Changing conditions make it prudent to periodically re-evaluate the performance of the Nation's infrastructure. Changing temperatures are already driving observable changes in hydrology in regions of the country that could potentially increase the vulnerability of water resources projects. Many Corps projects were built decades ago based on a limited hydrologic record and the operations and performance of these projects should be re-evaluated based on new information. The FY09 budget will support limited collaboration with the U.S. Geological Survey, the National Oceanic and Atmospheric Administration, and the Bureau of Reclamation to evaluate how climate change may affect water resources management and coastal planning. We will also begin to assess the vulnerability of Corps projects to dynamic changes including climate change and variability. Additional work could be considered for the out years. Examples are: (1) Conduct, in collaboration with the Federal agencies and other stakeholders, pilot studies in regions where there is already evidence of climate change (Western States and Alaska). (2) Update policy and guidance to improve the Corps ability to adaptively plan and manage for changing conditions.

#### Flood Vulnerability Study

Authorized by Section 2032 of the Water Resources Development Act of 2007 (P.L. 110-114), this investigation will result in a report that describes the Nation's vulnerability to damage from flooding, including the risk to human life safety; the risk to property; and the comparative risks faced by different regions of the United States. The report will include an assessment of the extent to which Federal programs relating to flooding in the Nation address flood risk reduction priorities; the extent to which those programs may be encouraging development and economic activities in flood prone areas; recommendations for improving those programs with respect to reducing and responding to flood risks; and proposals for implementing those recommendations. The FY09 budget provides for \$2 million for the initiation of this high-priority study. The study will provide background for a subsequent effort by policy officials to develop recommendations to improve existing Federal programs, authorities and roles.

#### FYDP Budgetary Resources: Base, Enhanced and the "Wedge"

Congress provides appropriations to the Corps in the form of funding accounts (e.g. investigations, construction, operation and maintenance). The business programs draw their resources from these accounts and strive to meet their objectives by allocating funds and managing their projects. For example, the navigation program receives funds from the investigations account to pursue feasibility studies related to solving navigation problems and from the operation and maintenance account to manage waterways.

This FYDP shows the out-year business program implications of two scenarios: (1) a Base Plan that tracks FY09 President's Budget and its follow-on funding stream and (2) an Enhanced Plan consistent with the total FY08 appropriations (\$5.587) and an assumed follow-on funding stream for FY09 through FY13. Under the enhanced plan, additional funds over the base scenario are allocated to business programs to apply to ongoing projects and activities. Also, the Enhanced Plan provides the opportunity for projects and activities to receive greater funding for work or to move into subsequent phases of work, by competing for a funding "wedge" as projects are completed. This FYDP identifies and tracks the wedge, but does not allocate it to the programs. Instead, each program manager identifies candidate projects for the wedge funding.

## Detailed Methods and Assumptions

This section describes in detail the two scenarios presented in this Five-Year Development Plan, the Base Plan and the Enhanced Plan. In both scenarios, activities are assumed to be assigned to the same accounts as proposed for FY09. Specifically, funding for rehabilitations, compliance with the Endangered Species Act at operating projects, features to use material from maintenance dredging, and mitigation of shore impacts from Federal navigation operation and maintenance are assumed to be funded by the Operation and Maintenance account.

#### **Base Plan**

The Base Plan is based on the President's budget for FY09 and formula-driven agency funding levels for FY10 through FY13 from the Office of Management and Budget (OMB). After the budget year decisions are complete, OMB generates out-year appropriation amounts that are consistent with the President's overall targets for revenues, defense, homeland security, and non-security spending. As a result, the data for the Base Plan out-years do not represent proposed levels for the agency accounts, or programs. Rather, the outyear numbers are formula-generated placeholders, pending budget decisions in future years.

Under the Base Plan, each account would maintain the same percentage of total funding in each of the out-years that it has in the FY09 budget. For instance, the Investigations account is 1.92 percent of the total in the FY09 budget, so it would be 1.92 percent of the total in each out-year. The following table displays the total and the amount for each appropriations account from FY09 thru FY13.

Table 1: Civil Works Base Plan Appropriations Accounts by Fiscal Year (\$ Millions)

Fiscal Year	2009	2010	2011	2012	2013
Account:					
Investigations	91	84	85	85	84
Construction	1,402	1,304	1,316	1,310	1,304
Operation and Maintenance (O&M)	2,475	2,302	2,323	2,312	2,302
Mississippi River and Tributaries (MR&T)	240	223	225	224	223
Formerly Utilized sites Remedial Action Program (FUSRAP)	130	121	122	121	121
Regulatory Program	180	167	169	168	167
Flood Control and Coastal Emergencies (FCCE)	40	37	37	37	37
Expenses	177	165	166	165	165
Assistant Secretary of the Army (Civil Works)	6	6	6	6	6
Total, Discretionary Budget Authority	\$ 4,741	\$ 4,409	\$ 4,449	\$ 4,428	\$ 4,409

## Expenses and Office of the Assistant Secretary of the Army (Civil Works), (ASA(CW))

Expenses and ASA(CW) accounts fund Corps executive direction and management, and Army Secretarial oversight of the Civil Works program. Corps's executive direction covers the headquarters and division expenses. These accounts are not allocated to business programs. The ASA(CW) amount is part of the Army Civil Works FY09 budget; however, the office is treated as the Department of Defense.

The following table displays the funding allocation among business programs.

Table 2: Civil Works Base Plan Programs by Fiscal Year (\$ Millions)

Fiscal Year	2009	2010	2011	2012	2013
Business Program:					
Navigation	1,892	1,712	1,728	1,687	1,623
Flood and Coastal Storm Damage Reduction (FCSDR)	1,322	1,220	1,162	1,107	982
Aquatic Ecosystem Restoration	286	273	267	266	266
Environmental Stewardship	95	89	89	89	88
Formerly Utilized sites Remedial Action (FUSRAP) Program	130	121	122	121	121
Hydropower	319	301	295	287	264
Recreation	270	253	253	251	250
Water Supply	6	5	6	5	5
Regulatory	180	167	169	168	167
Emergency Management	58	53	54	53	53
Executive Direction and Management	177	165	166	165	165
Army Secretarial Oversight	6	5	6	5	5
Other (Additional studies, projects, programs, and activities, known as the "wedge")	0	45	132	224	420
Total	\$ 4,741	\$ 4,409	\$ 4,449	\$ 4,428	\$ 4,409

The "wedge" refers to funding made available by completed projects. The "wedge" is not allocated to business programs; however, in a subsequent section, each business program provides examples of how these funds could be used.

The table below shows how the Business Programs draw funds from the various accounts in FY09 Base Scenario. For example, the \$1.9 billion Navigation Program draws \$20 million from investigations, \$487 million from construction, \$1.3 billion from operation and maintenance (O&M), and \$39 million from the Mississippi River and Tributaries accounts. Similar data was used for the formulation of business program funding in each out-year and scenario.

Table 3: FY09 Base Business Program and Account Summary (\$ Millions)

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Business Program:										T		
Navigation	\$ 20	\$ 487	\$1,346	\$ 39						\$	1,892	
Flood Risk Management (Flood and Coastal Damage Reduction)	\$ 36	\$ 627	\$ 482	\$ 177						\$	1,322	
Aquatic Ecosystem Restoration	\$ 35	\$ 245	\$ 2	\$ 4						\$	286	
Environmental Stewardship			\$ 90	\$ 5						\$	95	
Formerly Utilized Sites Remedial Action (FUSRAP) Program					\$130					\$	130	
Hydropower		\$ 43	\$ 276							\$	319	
Recreation			\$ 255	\$ 15						\$		
Water Supply			\$ 6							\$	_	
Regulatory							\$180			\$		
Emergency Management			\$ 18			\$ 40				\$		
Executive Direction and Management								\$ 177		\$	177	
Assistant Secretary of the Army (ASA Civil Works)									\$ 6	\$	6	
Total	\$ 91	\$1,402	\$ 20 \$ 487 \$1,346 \$ 39 \$ 1,892 \$ 1,322 \$ 36 \$ 627 \$ 482 \$ 177 \$ 286 \$ 90 \$ 5 \$ 95 \$ 95 \$ 130 \$ 1			\$ 6		1				

#### **Enhanced Plan**

For the Enhanced Plan, the overall funding levels for FY09 through FY13 adjust the FY08 Appropriations overall funding level of \$5.587 billion (including the Assistant Secretary and Expenses) for projected changes in the Gross Domestic Product (GDP) price index. Consistent with the base scenario, Expenses and the Assistant Secretary accounts are not allocated to the business programs. The funding allocation is permitted to vary from the FY09 account mix. However, no account receives less funding in FY09 Enhanced Plan than it does in the FY09 budget.

#### FY09 Appropriation Account Funding under the Enhanced Plan is distributed as follows:

- The Operation and Maintenance account and the Maintenance portion of MR&T account receives funding above the FY09 budget amount to address priority maintenance. The O&M account received \$2.97 billion in FY09, an increase of \$496 million over the FY09 budget amount for the O&M account. MR&T Maintenance receives \$191 million in FY09, or \$28 million above the Maintenance portion of the FY09 budget amount for MR&T.
- Investigations receive \$145 million in FY09, \$54 million above the FY09 budget amount.
- Construction receives \$1.673 billion in FY09 in accordance with Table C-2, discussed below. This is \$271 million above the FY09 budget amount.
- The Formerly Utilized Sites Remedial Action Program (FUSRAP) account receives \$145 million in FY09. This is \$15 million above the FY09 budget amount.
- The Expenses account receives \$191 million in FY09, which is \$14 million above the FY09 budget amount.
- The Regulatory Account receives \$246 million in FY09, or \$66 million above the FY09 budget amount.
- The Flood Control and Coastal Emergencies account would receive \$40 million, which is the same as the FY09 budget amount.
- MR&T receives \$282 million compared to \$240 million in the Base Plan. Most of this increase is from O&M.

#### Out-years Appropriation Funding under the Enhanced Plan is distributed as follows:

In the out-years, funding for each account generally increases from the FY09 level with the GDP price index. This is about two percent per year. However, the O&M account and the Maintenance portion of the MR&T account increase three percent per year in recognition of the aging of the Civil Works capital assets. As an offset, the Construction account and the Construction portion of the MR&T account only increases slightly each year.

The following table displays the overall total and the total for each account in each fiscal year from FY09 through FY13 under the Enhanced Plan.

Table 4: Civil Works Enhanced Plan Appropriations Accounts by Fiscal Year (\$ Millions)

Fiscal Year	2009	2010	2011	2012	2013
Account:					
Gross Domestic Product Price Index	124	126	129	131	134
Investigations	145	148	151	154	158
Construction	1,673	1,676	1,679	1,682	1,682
Operation and Maintenance (O&M)	2,971	3,060	3,151	3,244	3,342
Flood Control, Mississippi River and Tributaries (MR&T)	282	287	293	299	305
Formerly Utilized Sites Remedial Action Program (FUSRAP)	145	148	151	154	157
Regulatory Program	246	251	256	261	266
Flood Control and Coastal Emergencies (FCCE)	40	41	42	43	44
Expenses	191	195	199	203	207
Assistant Secretary of the Army (Civil Works)	6	7	7	8	8
Total, Discretionary Budget Authority	\$ 5,699	\$ 5,813	\$ 5,929	\$ 6,048	\$ 6,169

Table 5 displays the business program funding. The "wedge" refers to funding made available by completed projects. The "wedge" is not allocated to business programs; however, in a subsequent section, each business program provides examples of how these funds could be used.

Table 5: Civil Works Enhanced Plan Business Programs by Fiscal Year (\$ Millions)

Fiscal Year	2009	2010	2011	2012	2013
Business Program:					
Navigation	2,258	2,188	2,182	2,260	2,192
Flood and Coastal Storm Damage Reduction (FCSDR)	1,596	1,675	1,702	1,689	1,666
Aquatic Ecosystem Restoration	388	394	429	432	458
Environmental Stewardship	98	101	104	108	110
Formerly Utilized sites Remedial Action (FUSRAP) Program	145	148	151	154	157
Hydropower	383	398	399	392	388
Recreation	296	304	313	324	331
Water Supply	7	8	8	8	8
Regulatory	246	251	256	261	266
Emergency Management	58	58	60	62	64
Executive Direction and Management	191	195	199	203	207
Army Secretarial Oversight	6	7	7	8	8
Other (Additional studies, projects, programs, and activities, "wedge")	27	86	119	147	314
Total	\$ 5,699	\$ 5,813	\$ 5,929	\$ 6,048	\$ 6,169

The table below shows the distribution of Enhanced funds to the Business Programs for FY09. In FY09, Navigation receives \$2.258 billion which is \$366 million above the base. It is allocated \$22 million (\$2 million over Base) for investigations, \$578 million (\$91 million over Base) for Construction, \$1.6 billion (\$264 over Base) for O&M, and \$48 million (\$9 million over Base) for MR&T.

**Table 6: FY09 Enhanced Business Program and Account Summary** (\$ Millions)

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Business Program:						Π						Π			
Navigation	\$ 22	\$	578	\$1	,610,	\$	48							\$	2,258
Flood Risk Management (Flood and Coastal Damage Reduction)	\$ 42	\$	723	\$	625	\$	206							\$	1,596
Aquatic Ecosystem Restoration	\$ 54	\$	327	\$	2	\$	5							\$	388
Environmental Stewardship		\$	6	\$	92									\$	98
Formerly Utilized Sites Remedial Action (FUSRAP) Program								\$145						\$	145
Hydropower		\$	43	\$	340	Г						Γ		\$	383
Recreation				\$	279	\$	17							\$	296
Water Supply				\$	7							Г		\$	7
Regulatory										\$246				\$	246
Emergency Management				\$	18				\$ 40					\$	58
Executive Direction and Management											\$ 191			\$	191
Assistant Secretary of the Army (Civil Works)												\$	6	\$	6
Other (Additional studies, projects, programs, and activities, "wedge")	\$ 27													\$	27
Total	\$145	\$1	,677	\$2	2,973	\$	276	\$145	\$ 40	\$246	\$ 191	\$	6	\$	5,699

Under the Base Plan there is no "wedge" in FY09, but there is a "wedge" in the out-years. The Enhanced Plan shows a "wedge" for all years. In both cases, the "wedge" is not allocated across business programs.

## **Business Program Summary**

#### **NAVIGATION**

The Navigation mission is to provide safe, reliable, efficient, effective, and environmentally sustainable waterborne transportation systems (i.e. channels, harbors, and waterways) for movement of commerce, national security needs and recreation. The Corps' primary navigation responsibilities include planning and constructing new navigation channels, locks, and dams; and, dredging to maintain channel depths at U.S. ports, harbors, channels and inland waterways, and operation and maintenance of locks and dams. The navigation program is vital to the nation's economy. Over 95 percent of our nation's foreign trade moves by ship through our ports. Our nation's marine transportation system encompasses a network of navigable channels, waterways, and infrastructure maintained by the Corps, as well as publicly and privately owned vessels, marine terminals, inter-modal connections, shipyards, and repair facilities. The Corps operates and maintains 25,000 miles of navigable channels and 195 commercial lock and dam sites and is responsible for over 900 harbors and waterways in 41 states.

#### FLOOD AND COASTAL STORM DAMAGE REDUCTION (FCSDR)

The mission is to safely manage flood risk and reduce damages to participating jurisdictions resulting from inland riverine flood and coastal storm hazards. The program objectives are: 1) to identify, plan for, and design justified solutions to flood and coastal storm hazard problems; 2) to bring high-performance projects on line to start generating risk-reduction (and other) benefits; and 3) to keep Federally operated projects operating at required design levels. The mission is accomplished through structural and non-structural means. This includes design and construction of structures such as dams, levees, jetties, seawalls; beach nourishment, and nonstructural means such as flood proofing, relocation and technical assistance programs (such as Flood Plain Management and Planning Assistance to States). Projects can be authorized as multi-purpose and have additional purposes, such as ecosystem restoration, recreation, or navigation. The program also includes dam safety, which addresses hydrologic, seismic, stability and seepage issues associated with existing Corps' owned dams. The Inspection of Completed Works program inspects all Corps constructed flood damage reduction facilities that are operated by non-Federal entities and advises of any deficiencies that must be corrected. The program also funds research and other activities that provide technology, and support to the FCSDR program.

The FCSDR program is in essence a risk management program that identifies, evaluates, selects, implements and monitors actions to mitigate risk. The goal is to provide scientifically sound, cost-effective, integrated actions that reduce risks while accounting for social, cultural, ethical, political and legal considerations. The Corps collaborates effectively and efficiently through including many partners and stakeholders in this process to communicate flood risk to the nation.

#### **ENVIRONMENTAL**

The Environmental Program includes three sub-programs: Aquatic Ecosystem Restoration, Environmental Stewardship and the Formerly Utilized Sites Remediation Action Program. Each of these sub-programs has separate goals and objectives and performance measures.

#### **ENVIRONMENTAL: AQUATIC ECOSYSTEM RESTORATION (AER)**

The mission is to help restore regionally- and nationally-significant degraded aquatic ecosystems. These ecosystems are recovered to a less degraded, and more natural condition (including structure, function, hydrologic, geomorphic, biological and dynamic processes) in a cost-effective manner. Examples include dam removals, fish passage structures, restoration of river oxbows, and water modification structures. Projects range from those affecting hundreds of thousands of acres to those addressing significant resource issues on a smaller scale. In recent years, an Inspection of Completed Works program has been initiated to assure that completed projects are managed and maintained appropriately. In 2007, new research and development efforts were initiated to more objectively quantify benefits to help prioritize program efforts along with current research efforts to improve project planning and design. The AER subprogram also addresses some problems jointly with other business programs. Wetland creation is often combined with initial construction or maintenance of navigation channels. An area where the ecosystem is restored may also serve as a floodway and thus be an integral element of a flood damage reduction project. Finally, ecosystem restoration projects are frequently key elements of watershed plans contributing to water quality and recreation opportunities.

#### ENVIRONMENTAL: ENVIRONMENTAL STEWARDSHIP

The mission is to manage and conserve natural resources (including cultural resources) consistent with ecosystem management principles, while providing quality public outdoor recreation experiences to serve the needs of present and future generations. The management of natural resources by utilizing a stewardship concept ensures the conservation, preservation, or protection of Corps land and water resources. The Corps Civil Works Strategic Plan for FY04 to FY09 reflects this mission, and includes goals and objectives stressing holistic, balanced, fiscally responsible stewardship consistent with the Corps Mission.

For the Corps the term 'steward' means manager of those public resources. Environmental Stewardship includes both passive and proactive management to sustain healthy ecosystems and biodiversity and to conserve natural resources such that Corps lands and waters are left in a condition equal to or better than their condition when acquired so that natural and cultural resources are available to serve the needs of present and future generations. Programs and activities related to environmental stewardship and the management of natural resources shall be implemented and shall be consistent with the Natural Resource Management Mission and the following program objectives: (1) manage natural resources on Corps of Engineers administered land and water in accordance with ecosystem management principles, to ensure their continued availability, and (2) provide a safe and healthful environment for project visitors.

# **ENVIRONMENTAL:** Formerly Used Sites Remediation Assistance Program (FUSRAP)

The mission is to assist in the cleanup of contaminated, hazardous, toxic, and radioactive waste sites as authorized or requested by others. The goals are to minimize risk to human health and the environment, maximize the cubic yardage of contaminated material disposed, return the maximum number of affected individual properties to beneficial use, and have all remedies in place as quickly as possible within funding limits. The program was originally established to identify, evaluate, and remediate sites affected with contaminated materials (primary contaminants are radium, thorium, and uranium) during Manhattan Engineering District (MED) and Atomic Energy Commission (AEC) activities. Through the years, additional, similar sites have been added to the program.

#### **HYDROPOWER**

The mission is to provide reliable hydroelectric power services at the lowest possible cost, consistent with sound business principles, in partnership with other Federal hydropower generators, the Power Marketing Administrations, and Preference Customers, to benefit the Nation. The Corps of Engineers is the largest producer of hydroelectric power in the United States. It operates and maintains 75 hydropower plants containing 350 generating units with a total installed capacity of 20,750 megawatts, which represents 24 percent of hydropower capability and three percent of all energy produced in the nation. This is enough energy to serve 10 million households. Hydropower generating units can start quickly and adjust rapidly to electrical energy loads. This flexibility allows hydropower units to serve a primary role in meeting peak energy demands and energy reserve needs to protect the reliability and stability of the national power grid. Additionally, hydropower is considered a "green" energy source because it uses a renewable fuel for energy generation and does not emit harmful greenhouse gases into the atmosphere doing the energy production process.

#### RECREATION

The Recreation program mission is to provide quality outdoor public recreation experiences to serve the needs of present and future generations and to contribute to the quality of American life, while managing and conserving natural resources consistent with ecosystem management principles. The Corps is the largest Federal provider of outdoor recreation services. Over 4,300 recreation sites are located on Corps-managed lands at more than 400 lakes (352 budgeted projects) in 42 states. Water-oriented recreation is attractive to visitors, and Corps sites and facilities serve millions of people each year.

The Corps has long been a leader in developing partnerships to assist in providing recreation opportunities. For this reason, about 1,800 (41 percent) of these recreation areas are operated and maintained by other entities, such as states and local governments, under a lease or license agreement. Project managers work together with local stakeholders and with their representatives in Congress to develop improved ways of doing business to facilitate

responsiveness to stakeholders, while assuring quality outdoor recreation opportunities are available for the enjoyment of future generations of Americans.

#### REGULATORY

The mission is to protect the Nation's aquatic resources, while allowing reasonable development through fair, flexible and balanced permit decisions. The Corps evaluates permit applications for construction and dredging activities occurring in the Nation's waters, including wetlands. The Corps balances the benefits and detriments of proposed projects, and makes permit decisions that recognize the aquatic ecosystems' value to the nation, as well as the property rights of private citizens. During the permit process, the Corps considers the views of other Federal, state and local agencies, interest groups, and the general public. The results of this careful public interest review are fair and equitable decisions that allow reasonable use of private property, infrastructure development, and economic growth, while offsetting adverse impacts to the Nation's waters. Any adverse impacts to the aquatic environment are offset by mitigation requirements, which may include restoring, enhancing, creating and/or preserving aquatic functions and values. The Corps strives to make its permit decisions in a timely manner to minimize impacts to the regulated public. In FY07, the Corps permitted more than 100,000 activities; an increase of 4,000 more permits than in FY06, and completed more than 110,000 jurisdictional determinations. Of the approximately 100,000 permits, more than 90 percent were regional and nationwide general permits with an average processing time of 63 days.

#### **EMERGENCY MANAGEMENT**

The mission is to provide rapid and effective response to natural and man-made hazards. This protects lives and property, reduce damages from floods and coastal storms, and provides reliable and safe drinking water (such as during droughts, or contaminated supplies) that facilitates rapid economic recovery after disasters. The Corps prepares for, and responds to, natural disasters under the Flood Control and Coastal Emergency (FCCE) program established by Public Law 84-99 (1955) and to man-made disasters under the National Emergency Preparedness Program (NEPP). Through both programs, the Corps supports the Department of Homeland Security under the National Response Framework. The Corps also provides direct capability to communities during floods and in support of the Federal Emergency Management Agency (FEMA), Department of Homeland Security, augmenting state and local response and recovery capabilities.

In FY08, the Corps Office of Homeland Security initiated the development of a multi-year roadmap that will define a series of key initiatives aimed at improving critical infrastructure protection and resilience of water resource infrastructure owned, operated, and maintained by the Corps. This plan responds to the National drivers outlined by Homeland Security Presidential Directive 7 (HSPD-7), and the National Critical Infrastructure Protection (CIP) Program as implemented through the National Infrastructure Protection Plan (NIPP) and its supporting Dams Sector-Specific Plan (SSP). This plan will also account for internal drivers, such as the Corps' Campaign Plan Goal 3b (*Reduce security risks to critical water resources and military* 

infrastructure from hostile activity) and the Civil Works Strategic Plan 4.2 (Improve the safety and security of critical water resources infrastructure) strategic drivers. The Critical Infrastructure Security and Protection (CISP) vision, which is aligned with the NIPP and its supporting Dams SSP, is to achieve a more secure and more resilient Corps civil works infrastructure by enhancing its protection in order to prevent, deter, or mitigate the effects of manmade attacks and improve preparedness, response, and rapid recovery in the event of an attack, natural disaster, and other emergencies.

#### WATER SUPPLY

The mission is to provide storage in Corps' multi-purpose reservoirs for beneficial municipal and industrial (M&I) water supply. The program covers storage in reservoirs and lakes, but does not include water supply "plumbing" (e.g., infrastructure for water treatment or water transport). The M&I program currently has 9.8 million acre-feet of storage space in 136 Corps reservoir projects located in 25 states plus Puerto Rico. Reimbursement for this storage is through 307 water storage agreements with state and local interests. These agreements commit the sponsors to repay a total of \$1.5 billion of project costs plus yearly operation and maintenance expense. These funds are returned to the U.S. Treasury. No funds are included in this program for construction.

#### **EXECUTIVE DIRECTION AND MANAGEMENT (ED&M)**

The Expenses Account provides for Executive Direction and Management (ED&M) of the Civil Works Program pursuant to policy guidance and oversight by the Assistant Secretary of the Army (Civil Works). This is accomplished through command and control, policy and guidance development, program management, national coordination, and quality assurance. Principal activities include corporate leadership, strategic planning and performance measurement. Performance measurement is accomplished through use of OMB's Performance Assessment Rating Tool (PART), the President's Management Agenda (PMA), and construction leading/lagging indicators, and efficiency studies such as Lean 6 Sigma. Program management is done through various levels of review such as Project Review Board (PRB) Reviews, Directorate Management Reviews (DMRs), and Command Management Reviews (CMRs). ED&M also does national coordination and collaboration with other agencies, States, local governments, and non-governmental organizations.



# Navigation



## Navigation



#### **Key Statistics**

- Operates and maintains 25,000 miles of navigable channels
- Responsible for 926 deep and shallow draft harbors in 41 states.
- Operate and maintain 240 lock chambers at 195 sites
- There is 2.2 billion tons of domestic and foreign commerce carried annually on inland waterways.

#### **Accomplishments**

- Program operates and maintains diverse navigation resources including: inland waterways, commercially important ports and channels; refuge harbors to protect vessels from storms; subsistence harbors to meet community needs; locks, and smaller harbors among other assets
- Program provides numerous activities such as basic maintenance for older and/or smaller commercial locks and harbors; construction of dredged material placement sites; mitigation, dredging, and construction of beneficial use sites for dredged material

#### **Future Challenges**

- Providing an efficient and effective navigation system with limited funding and staff
- Meeting the changing world shipping fleet needs to accommodate wider and deeper ships
- Maintaining an inland navigation infrastructure that is on average over 50 years old with growing rehabilitation and maintenance needs
- Depletion of the Inland Waterways Trust Fund; outlays have exceeded revenues since 2002
- Balancing environmental values (turtles, nesting birds, turbidity, sea grasses) with dredging and material disposal responsibilities and placement
- Obtaining/Constructing/Financing new dredged material disposal sites, and finding storage capabilities to hold dredged material from channel maintenance
- Implementing a system that consistently evaluates asset quality and deficiencies across projects in various regions to assist in making better resource decisions
- Creating a cost-effective model to show the relative performance increase from marginal increases in program resources
- Establishing a baseline of the physical condition of Corps Navigation assets.

#### **Program History and Performance**

The Navigation business program supports the following strategic plan goals, objectives and performance measures. The program's strategic objectives come from Civil Works Strategic Goal 1 and Goal 3.

<u>Strategic Objective 1.3</u>: Reduce backlog of uncompleted, scheduled work on budgeted construction projects.

<u>Strategic Objective 1.3.1</u>: Deliver project benefits as quickly as possible within available resources.

<u>Strategic Objective 3.1</u>: Improve the efficiency and effectiveness of existing Corps water resource projects.

**Strategic Objective 3.2:** Address the operations and maintenance (O&M) backlog.

#### **Performance Measures**

Three categories of program performance measures support the above goals and objectives. Many of these Navigation measures were modified or added in 2007; these are noted below. Historical and future performance data for the new measures will be reported as it is collected and developed.

#### 1) Customer Service Measures

- Channel availability, high-use projects (coastal ports and harbors) (shown in table below): Percent of time that high commercial-traffic navigation channels are available to commercial users.
- ❖ Segment Availability (inland waterways) (shown in table below): Number of instances where mechanical driven failure or shoaling results in the closure of all or part of a high or moderate commercial use segment for over 24 hours. Also closures in excess of 1 week.
- Channel availability, high-use projects (inland waterways). New for 2007. Percent of time that all Inland Waterways segments with high commercial activity are available when customers want to use them.
- ❖ Percent of high use segments with "good" service level. New for 2007. Percent of high commercial use segments with sufficient preventative maintenance to achieve a good service level. High use segments are the upper and lower Mississippi, the Illinois, Ohio and Tennessee Rivers and the GIWW.

#### 2) Asset Management Measure

❖ Percent of inland waterways projects exceeding facilities condition index (FCI) standard. New for 2007. This measure assesses agency performance in meeting the goals of the President's Real Property Asset Management Initiative.

#### 3) Program Efficiency Measures (New for 2007)

- ❖ Percent of reports recommending projects reflecting watershed principles. Percent of Chief's reports recommending projects for authorization that meet criteria for reflecting watershed principles in the recommended plan.
- ❖ Average annual benefits (present value) attributable to Preconstruction Engineering and Design (PED) work completed in current FY.
- Average annual benefits (present value) realized by construction projects completed in FY.
- ❖ High-return investments (inland waterways). Percent of funding to rehabilitate, construct or expand projects that is allocated to high-return investments.
- ❖ Percent change in funds required to complete all programmed work.
- ❖ Total O&M funds expended per segment ton-mile averaged over a five-year period, including rehabilitations
- ❖ Cost per ton. Operation and maintenance cost per ton of cargo shipped through a port.

The following table presents a summary of the program funding and performance. Performance information provided in the table is incomplete because the applicable data systems which will be used to collect the data are being deployed.

**Table 1: Navigation Performance for O&M Projects** 

Fiscal Year	1999	2000	2001	2002	2003 <sup>1</sup>	2004	2005	2006	2007 <sup>2</sup>	2008 <sup>2</sup>
Appropriation (\$ Millions)	NA	NA	NA	NA	NA	\$1,692	\$1,796	\$1,926	\$2,009	\$1,900
Segment Availability (000 hours)	NA	27	34	32	38	49	39	39	39	40
Channel availability, high-use projects <sup>3</sup> (Center half of channel)	NA	NA	NA	NA	NA	38%	35%	32%	32%	30%

Note 1: The navigation business line was realigned in FY2003; annual appropriations prior FY2004 cannot be directly compared to the appropriations in the years following the realignment.

Note 2: Values are estimates

Note 3: Values for top 59 coastal and Great Lakes navigation projects based on tonnage. All projects included carry more than 10 million tons.

#### Project Spotlight: New York and New Jersey Harbor Deepening Project



**District:** New York District

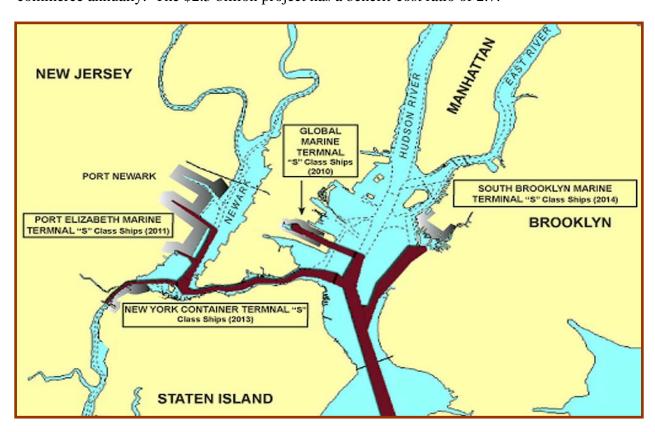
Location: Newark, Staten Island

and Brooklyn Metro Area

**Project:** Deep Draft Navigation

The project deepens about 35 miles of the federal navigation channels to 50-53 foot-depths to provide larger vessel access to four major container terminals. The project includes beneficial use of dredged material, and environmental restoration to mitigate adverse environmental impacts. The port is the largest on the east coast and

serves 35 percent of the American population. The port carries over 150 million tons of commerce annually. The \$2.5 billion project has a benefit-cost ratio of 2.7.



#### **Base Funding and Performance**

The Base Plan program focuses on the most critical infrastructure repairs and replacements. Funding will not keep pace with higher dredging and construction costs. Unscheduled closures of inland navigation locks are expected to increase, and channel availability is expected to decrease. Critical maintenance funding will keep most key navigation infrastructure functioning; however, overall facility condition will slightly decline. Channels not maintained at authorized design drafts could result in light-loading of vessels (carrying less cargo to enter shallower drafts), delays waiting for higher tides, diversion to other ports, or using trucking or rail. Ongoing construction will continue at constrained levels. The highest-return studies, preconstruction engineering and designs (PEDs), and projects will be funded, and other projects may receive little or no funding.

Table 2: Five-Year Base Plan Navigation Business Program by Account (\$ Millions)

Fiscal Year	2009		2010		2011		2012		2013	
Investigations	\$	20	\$	17	\$	14	\$	13	\$	13
Construction	\$	487	\$	415	\$	415	\$	379	\$	320
Operation and Maintenance (O&M) Estimate	\$	1,346	\$	1,242	\$	1,260	\$	1,256	\$	1,252
Mississippi River and Tributaries (MRT) Investigations	\$	-	\$	-	\$	-	\$	-	\$	-
MRT Construction	\$	10	\$	11	\$	12	\$	12	\$	12
MRT O&M Estimate	\$	29	\$	26	\$	27	\$	27	\$	27
Total	\$	1,892	\$	1,712	\$	1,728	\$	1,687	\$	1,623
Note: Includes CAP and Remaining Items										

#### **Initiatives for Base Plan**

- Support high-use harbors and net exporting coastal ports
- Continued development and implementation of a means to quantify and prioritize necessary maintenance repairs at inland navigation structures to stop the trend of increasing unscheduled lock closures
- Develop standard risk and reliability criteria to measure the condition of Corps inland waterway assets nationwide for use in establishing maintenance priorities. Risk-based condition indices will be established and populated by FY11.
- Continue Facilities Equipment Management (FEM) implementation to apply consistent maintenance standards, develop standard maintenance data and provide a means to analyze maintenance trends and unaccomplished maintenance needs on all navigation facilities equipment
- Use the standardized 'Asset Management' performance information in the budget decision process to optimize maintenance expenditures and improve the reliability for all large navigation structural assets
- Continue performance measures development and evaluation for inland navigation

- Complete construction of Oakland Harbor in California, Columbia River Channel Improvements in Oregon, Marmet Lock along the Kanawha River in West Virginia, Robert C. Byrd Locks and Dam in West Virginia and Ohio, McAlpine Locks and Dam along the Ohio River in Kentucky and Indiana, and St. Lucie Inlet in Florida.
- Continue construction of New York/New Jersey Harbor, Olmsted Lock and Dam in Illinois, Houston-Galveston Navigation Channel in Texas, Sacramento Deepwater Ship Channel in California, the Illinois Waterway and Lockport Lock and Dam, Emsworth Locks and Dam along the Ohio River in Pennsylvania, the Chickamauga Lock along the Tennessee River in Tennessee, and Locks and Dams 2, 3, 4, Monongahela River in Pennsylvania
- Continue rehabilitation of locks at Lock and Dam 27 along the Mississippi River in Illinois, Lock and Dam 11 along the Mississippi River in Iowa, Markland Locks and Dam in Kentucky and Indiana, and Lower Monumental Lock and Dam in Washington
- Initiatives assume enactment of legislation by FY09 to collect lockage-based user fees for commercial barges on the inland waterways to address the declining balance in the Inland Waterways Trust Fund. Enacting the legislation will provide the revenue needed to avoid depleting the trust fund by the end of calendar year 2008, and support ongoing and future inland waterways projects.

Table 3: Five-Year Base Plan Total Budget and Performance

Fiscal Year	2009	2010	2011	2012	2013
Budget (\$ million)	\$1,892	\$1,712	\$1,728	\$1,687	\$1,623
Segment availability (000 hours)		45	43	42	41
Channel availability, high-use projects (Center half of channel)	30%	28%	26%	24%	22%

#### Project Spotlight: Marmet Locks and Dam, West Virginia



**District:** Huntington District

**Location:** Kanawha River near Marmet, West Virginia **Project:** Inland Navigation

**Link:** <a href="http://www.lrh.usace.">http://www.lrh.usace.</a> army.mil/projects/locks/mar/

New 110-foot by 800-foot lock chamber at Marmet Locks and Dam was authorized by the

Water resources Development Act of 1996 and the lock section opened in January 2008. The new lock replaces the original twin 56-foot by 360-foot locks built in 1934 and increases efficiency and safety. The new lock allows 11 jumbo barges to be locked through in 45 minutes,

whereas it took a five-barge tow 4.5 hours to lock through the original locks. The \$406 million project is scheduled for completion in 2009 and has a benefit to cost ratio of 2.6.

#### **Enhanced Funding and Performance**

The enhanced plan program contains funding for continuation and completion of ongoing construction projects and highest return studies. Additional dam safety assurance, seepage control, and static instability correction projects such as Lock and Dam 25 on the Mississippi River and Montgomery Lock and Dam on the Ohio River will be initiated. In addition, funding is included to accomplish high priority inland navigation infrastructure repairs to reduce the number of unscheduled lock closures and additional maintenance and dredging of coastal ports, harbors, and channels. Increased investments in inland navigation infrastructure will reduce unscheduled lock closures and increased investment in ports and channels could increase channel availability.

Table 4: Five-Year Enhanced Plan Navigation Business Program by Account (\$ Millions)

Fiscal Year	2	2009	2	010	2	011	2	012	2	013
Investigations	\$	22	\$	19	\$	13	\$	12	\$	12
Construction	\$	578	\$	463	\$	410	\$	435	\$	312
Operation and Maintenance (O&M) Estimate	\$	1,610	\$1	,657	\$1	,708	\$1	,761	\$1	,818
Mississippi River and Tributaries (MRT) Investigations	\$	-	\$	-	\$	-	\$	-	\$	-
MRT Construction	\$	14	\$	14	\$	14	\$	14	\$	14
MRT O&M Estimate	\$	34	\$	35	\$	36	\$	37	\$	37
Total	\$	2,258	\$2	,188	\$2	,182	\$2	,260	\$2	,192
Note: Includes CAP and Remaining Items										

#### **Initiatives for Enhanced Plan**

- Advance construction of New York/New Jersey Harbor, Sacramento Deepwater Ship Channel, Chickamauga Lock; and Mississippi River Regulating Works and Dikes.
- Initiate rehabilitation of LaGrange Lock & Dam, Illinois Waterway, and O'Brien Lock and Dam, Illinois Waterway, in Illinois
- Advance completion of rehabilitation at Lock and Dam 27 along the Mississippi River in Illinois; Lock and Dam 11 and 24 along Mississippi River in Iowa; Lock and Dam 3 along the Mississippi River in Minnesota; Markland Locks and Dam in Kentucky and Indiana; and Lower Monumental Lock and Dam.
- Initiatives assume enactment of legislation by FY09 to collect lockage-based user fees for commercial barges on the inland waterways to address the declining balance in the Inland Waterways Trust Fund. Enacting the legislation will provide the revenue needed to avoid depleting the trust fund by the end of calendar year 2008, and support ongoing and future inland waterways projects.

**Table 5: Five-Year Enhanced Plan Budget and Performance** 

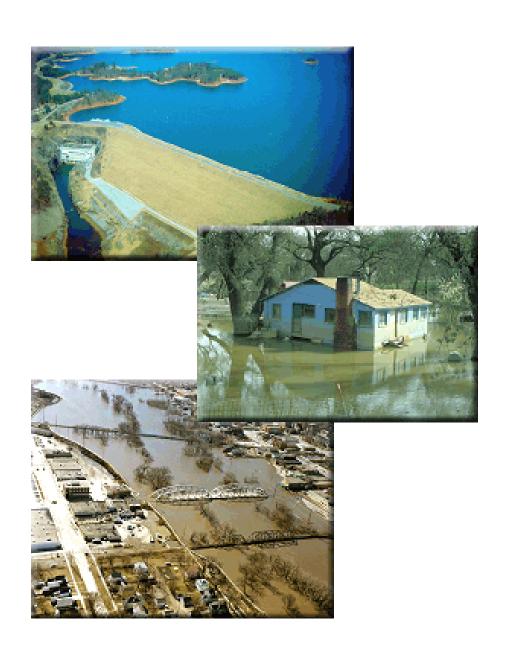
Fiscal Year	2009	2010	2011	2012	2013
Budget (\$ millions)	\$2,258	\$2,188	\$2,182	\$2,260	\$2,192
Segment availability (000 hours)	30	25	23	21	19
Channel availability, high-use projects (Center half of channel)	55%	68%	78%	86%	95%

#### Potential Work with "Wedge Money"

If "wedge" money for new starts was received for this business program, additional projects could be considered. While specific funding decisions would be made at that time, several examples of projects that could be considered are:

- Texas City Channel, Texas
- Greenup Locks and Dam, Kentucky and Ohio
- Inner Harbor Navigation Canal Lock, Louisiana
- Port of Long Beach and Los Angles Harbor Main Channel Deepening, California
- Mobile Harbor, Alabama
- Atlantic Intracoastal Waterway, Norfolk, Virginia to St. Johns River, Florida

# Flood and Coastal Storm Damage Reduction (FCSDR)



## Flood and Coastal Storm Damage Reduction (FCSDR)



-Portugues Dam (under construction), Puerto Rico

#### **Key Statistics**

- Constructed 8,500 miles of levees and dikes, 383 reservoirs and more than 90 storm damage reduction projects along 240 miles of the nation's 2,700-mile shoreline.
- Most sponsoring cities and agricultural levee districts own and operate Corps constructed infrastructure
- This program accounts for almost 28 percent of FY09 civil works appropriations

#### **Accomplishments**

- The Corps' approach to flood risk management includes collaborating with partners and stakeholders to make the nation more aware of flood risk. Partners/stakeholders include the Federal Emergency Management Agency, the Department of Housing and Urban Development, the National Oceanic and Atmospheric Administration, several states, sponsors and affected citizens.
- The Flood and Coastal Storm Damage Program compiled an impressive record of performance, saving six dollars in damages for each dollar spent. The program also has helped reduce the number of lives lost through flood warnings that provide time for evacuation.

#### **Future Challenges**

- Currently, local desires for assistance and willingness to cost share studies and projects drive this program. There is not any programmatic assessment to identify the worst flooding problems, but the FY08 Flood Plain Management Study, and the FY09 Water Resources Priorities Study in response to Section 2032 of WRDA 2007 will inform the program of national issues.
- Sponsors take over projects when the Corps has completed construction. Communities must remain vigilant in their readiness against floods, yet more frequent and common concerns often occupy the agendas of communities on a daily basis, while low frequency high importance events such as floods can be largely ignored until they are imminent.
- Mixed incentives among various federal programs can lead local governments or private parties to make decisions that increase flood risk exposure and liability.

- Risk communication is difficult to accomplish and sustain.
- The decision-making basis for investment decisions rests largely on measurable economic damages (e.g. avoided property damages), investment and operating costs, which do not capture all aspects of the harm caused by flooding (e.g. loss of life, community disruption).
- Documentation of program performance depends upon the frequency, magnitude and location of storms that actually occur. Continuing to provide the benefits afforded by these structures in a safe and reliable manner remains a large challenge. The effectiveness of flood damage reduction projects can be diminished by activities and phenomena outside the government's control. Changes in hydrology due to upstream development, development within floodplains, and other factors (e.g., climate change) can reduce the effectiveness of plans.
- Delayed or neglected maintenance can also reduce the effectiveness of projects.
- Aging infrastructure also reduces project reliability.

#### **Program History and Performance**

The Flood Control and Coastal Damage Reduction program has linked Strategic Goal 1 and Goal 2, and the following Strategic Objectives to its business program objectives and performance measures.

**Strategic Objective 1.1:** Better balance economic, environmental, and quality of life objectives

• <u>FCSDR Strategic Objective 1.1.2</u>: Invest in flood and coastal damage reduction solutions when benefits exceed the costs.

<u>Strategic Objective 1.2:</u> Support the formulation of regional and watershed solutions to water resource problems.

<u>Strategic Objective 3.1</u>: Improve the efficiency and effectiveness of existing Corps water resource projects.

**Strategic Objective 3.2**: Address the operations and maintenance (O&M) backlog.

#### **Performance Measures**

Performance indicators currently used are: (1) flood damages prevented from actual events by existing projects (ten year moving average), (2) people protected in the flood plain by projects brought on line, and (3) annual benefits (estimated future flood damages that would be avoided) by projects brought on line.

Additional indicators were recently established that will assist the Corps to determine program progress in meeting this objective. The Corps began collecting performance data relating to these indicators during the current year. Preliminary baseline data has been developed and is currently being vetted within the Administration.

- ❖ Flood damages prevented. Measures the estimated annual dollars of property damage avoided from completed Corps flood control projects.
- ❖ Increase in benefits realized. This is the percent increase in the present value of total benefits realized from construction work completed in the applicable fiscal year.
- ❖ Additional people protected. The percent increase in total affected population with reduced risk at project design attributed to completion of projects in the applicable fiscal year.
- ❖ Operating projects in zones 21-25. The percentage of operating projects (e.g., dams, levees, channels, flood gates) that are in zones 21-25 of the relative risk ranking matrix. These zones are defined in the Budget Engineering Circular EC 11-2-187 May 2007 (zones 21 to 25 are the projects in the best condition with less adverse consequences of failure.) See Appendix A for the Condition Consequence Matrix.
- ❖ Operating projects in zones 1-6. The percentage of operating projects (e.g., dams, levees, channels, flood gates) that are in zones 1-6 of the relative risk ranking matrix. These zones are defined in the Budget Engineering Circular. Zones 1 to 6 are the projects in the worse condition and have the most adverse consequences of failure. See Appendix A for the Condition Consequence Matrix.
- ❖ Dam safety projects. The percentage of the dams in the screening portfolio risk assessment (SPRA) that fall in Dam Safety Action Class (DSAC) I, II, or III.
- **Relative loss of life**. The total relative annualized loss of life per dam.
- ❖ Dam Safety Action Classifications (DSAC) I, II, and III projects. The number of DSAC I, II and III projects underway or completed during the applicable year.
- Screening for Portfolio Risk Assessments (SPRA's) completed. The number of SPRA screening level assessments completed in the applicable year.
- ❖ Marginal cost of operations. The marginal cost of operations and maintenance for all operating projects (e.g., dams, levees, channels, flood gates) relative to damages prevented.

The FCSDR business program identified performance-related indicators and ranking factors that enabled the FY 09 budgetary ranking of the relative merits of individual items of work and investment project increments.

These indicators include (but are not reported in this document):

- a. Benefit cost ratio (for PEDs and Construction)
- b. Net economic benefits
- c. Presence of dam safety, seepage, or static instability problems
- d. Number of people at risk in the 100-year flood plain (without project)
- e. Risk index (w/o project population at risk times average depth of flooding times average velocity of flooding divided by hours of warning)
- f. Presence of outputs from other business programs
- g. Percent of time available to operate as designed
- h. Cumulative operation and maintenance costs relative to cumulative economic benefits from operation and maintenance
- i. Inclusion of watershed management principles in project formulation

National flood damages, which averaged \$3.9 million annually in the 1980s, nearly doubled in the decade 1995 through 2004 despite Corps and other flood and storm damage prevention projects and programs. Total disaster assistance for both emergency response operations and subsequent long-term recovery efforts increased from an average of \$444 million during the 1980s to \$3.75 billion during the 1995 thru 2004 decade. Population migration to the coasts and development of floodplains explains much of the apparent contradiction between investment and national flood damages.

The performance history for flood damage reduction projects is shown in the following table which reflects the fact that if there are no floods in any given year, the project's performance cannot be measured. The only performance measures available at this time for riverine flood damage reduction projects is the annual 10-year running average of actual damages prevented. With coastal storms being less frequent, the Corps does not yet have comparable data. Also performance can only be measured for completed projects.

**Table 1: Flood and Coastal Storm Damage Reduction Historic Funding and Performance** 

Fiscal Year	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Appropriation (\$ Millions)	NA	NA	NA	NA	\$ 1.338	\$ 1.214	\$ 1.193	\$1.512	\$1.291	\$1.735
Flood Damages Prevented (\$ Millions)	\$ 21.2	\$ 2.8	\$ 21.9	\$ 23.1	\$ 15.7	\$ 22.5	\$ 24.0	\$ 9.2	NA	NA
Note 1: Includes Ca	AP and Re	maining	g Items							
Note: Values are e	stimates									

#### **Project Spotlight: Antelope Creek**

**District:** Omaha District

Location: Lincoln, Nebraska

**Project:** Inland Flood Damage Reduction

The \$57.2 million Antelope Creek channel improvement project will provide flood damage reduction to the city of Lincoln and the University of Nebraska at Lincoln (UNL) campus. The Corps designed the channel improvement project and is managing the



construction. The benefit to cost ratio is 1.3. The Antelope Creek project is being constructed in phases; the physical construction is approximately 60% complete. Phase 1 was completed in 2006, Phase 2 will be completed in 2008 and Phase 3 will be completed in 2010.

The existing Antelope Creek conduit has a capacity less than a 5-year flood event. The residential, downtown urban, and UNL city campus areas are frequently flooded beyond this event. Floods impact the City of Lincoln's major 5-laned road, downtown streets, and the UNL campus (22,000 students). The estimated federal funding needed to complete the project after 2008 is \$4.8 million.

This project is one piece of the massive Antelope Valley Project, which combines flood control, urban revitalization, and transportation projects. The entire Antelope Valley Project will cost \$238 million and take six to ten years to complete. A major roadway project, which also provides access over multiple mainline railroad tracks, is being constructed by the City of Lincoln, adjacent to, and parallel to the channel improvement project. The Multiple flood control, transportation, and urban revitalization construction projects are the result of a multi-year major investment study. The project is successfully coordinating and collaborating with numerous local, state and Federal government agencies, and other community organizations.

#### **Base Funding and Performance**

The FY09 FCSDR base plan program includes additional work on high performing studies, and preconstruction engineering, and design (PED), plus funding of an investigation that will result in a report that describes the Nation's vulnerability to damage from flood, including the risk to human life; the risk to property; and the comparative risks faced by different regions of the United States.

For FY09 investigations, the budget level includes continuing requirements not to exceed FY08 amounts, plus additional work on the highest performing studies and design efforts, with

preference given to high performing studies that: involve communities with larger numbers of people at risk in the flood plains, greater expected inundation damages occurring without the projects; and those with watershed-system planning potential. The five-year program also includes funds for MapMod coordination with FEMA and other critical coordination and data collection efforts.

The FCSDR construction program includes funding for earnings on previously awarded continuing contracts, plus associated Engineering and Design (E&D) and Supervision and Administration (S&A). It also includes work on: Sims Bayou, Texas, and American River Watershed, California, as well on continuing significant work on several dam safety project and dam safety studies at the dams that have been identified as high-risk.

The FSCDR program for operation and maintenance includes critical operation, maintenance and repair work and capability work for the Inspection of Completed Works efforts and work on asset management and risk-base condition indices.

Table 2: FCSDR Five-Year Base Plan by Account (\$ Millions)

Fiscal Year	2009	2010	2011	2012	2013
Investigations	\$36	\$34	\$32	\$32	\$30
Construction	\$627	\$567	\$510	\$455	\$335
Operation and Maintenance (O&M)	\$482	\$455	\$455	\$454	\$451
Mississippi River and Tributaries (MRT) Investigations	\$1	\$1	\$1	\$0	\$0
MRT Construction	\$60	\$55	\$57	\$57	\$57
MRT O&M	\$114	\$106	\$107	\$107	\$106
MRT Remaining Items	\$2	\$2	\$2	\$2	\$2
Total	\$1,322	\$1,220	\$1,163	\$1,107	\$982
Note: Includes CAP and Remaining Items		•	•	•	

#### **Base Plan Highlights**

- Flood Vulnerability Study: Authorized by Section 2032 of the Water Resources Development Act of 2007 (P.L. 110-114), this investigation will describe the Nation's vulnerability to damage from flood, including the risk to human safety; the risk to property; and the comparative risks faced by different regions. The report will assess how Federal programs relating to flooding address flood risk reduction priorities; how those programs may be encouraging development and economic activities in flood prone areas; recommendations for improving programs to reduce and respond to flood risks; and proposals for implementing recommendations.
- Dam Safety Assurance and Seepage Control: The Corps is continuing a transition to risk-informed concepts for prioritization and decision making within the dam safety program. This includes program requirements, day-to-day routine activities such as inspections, instrumentation, and interim risk reduction measures. This effort is continuing,

comprehensive, and integrated into the larger Civil Works program. One product is the justifications and prioritizations for dam safety actions, remedial structural and nonstructural, based on a project's risks and reliability determination. Three years of screening level risk assessments (SPRAs) have been performed. Assessments have been accomplished on 30 percent of dams judged to pose the highest human safety and economic risk. Trained experts will complete uniform SPRAs on all dams by FY09's end. Projects are grouped into 5 Dam Safety Action Classifications (DSAC) based on a combination of risk, consequences, and reliability with the bottom two categories having the least risk. The top two classifications are the riskiest, and are being fast-tracked through the planning, design, and construction process. They also include substantial interim risk reduction measures such as reservoir restrictions, increased surveillance, and additional public awareness. To facilitate priority projects, the funding program line item in the Construction account has been expanded to cover design, initial construction, an evaluation study, a report, and pre-design planning. A program of Periodic Assessments is being developed to start in FY10 to assess each dam on a 10-year cycle. Many dams in preliminary risk screening have been recommended for an additional investigation. This additional investigation analyzes remediation appropriateness. The planning, design, and construction of remedies will continue for at least ten years or until all dams in the top three DSAC categories have been modified. The FY09 recommendations include an increase in funding for dam safety studies in the Construction Remaining Items.

Levee Safety Initiatives and Program Development: National vision for this initiative is being developed based on the concepts that federal levees should be 1) safe and reliable, 2) managed in a partnership of shared responsibilities, 3) assessed in a comprehensive and continuing program, and 4) effectively communicated to all stakeholders, decision-makers, and communities. Utilizing the lessons learned and risk assessment this program will use best existing resources and maximize its decision making processes. However, levees and dams have very different challenges in size and also in the social, political, and ownership responsibilities. The Corps of Engineers has approximately 2,000 levees in its nationwide portfolio with many caretakers nationwide.

First, levee methodology tools, policies, and procedures need to be developed to institute a comprehensive, sustainable, risk-informed Levee Safety Program. Determining risks to life and property through a risk-informed approach is critical to both inform the public and to manage potential remediation efforts. The Corps' Levee Safety Program is continuing to research, develop and implement specific tools, policies, and methods which include: a levee screening tool and classification process to assess the entire Corps portfolio on a consistent basis and characterize the results, interim risk reduction methods and concepts until permanent remediation is achievable, methodology testing and finalization of periodic inspection and assessment criteria, a Levee Portfolio Risk Management Process, a comprehensive Engineer Regulation for Levee Risk Management, a levee inventory and inspection process. These various products and evaluation processes will provide a solid foundation for the Corps' Levee Safety Program and a significant advancement in flood risk management.

Table 3: FCSDR Five-Year Base Plan Performance

Fiscal Year	2009	2010	2011	2012	2013
Budget (\$ Millions)	\$1,322	\$1,220	\$1,163	\$1,107	\$ 982
Additional People Protected in Flood Plain (000)	1,769	222	55	1343	613
Cumulative People Protected in Flood Plain (000)	1,769	1,991	2046	3389	4002
Annual Benefits Brought On Line (\$ Millions)	\$ 107	\$ 239	\$ 4	\$ 182	\$ 70
Cumulative Annual Benefit Brought On Line (\$ Millions)	\$ 107	\$ 346	\$ 351	\$ 532	\$ 602
Note: Includes CAP and Remaining Items					

#### Project Spotlight: Duck Creek, Ohio Flood Protection Project

**District:** Louisville District

**Location:** Cincinnati, Ohio (between Interstate 71 and U.S.

Highway 50)

**Project:** Protecting Eastern Cincinnati from flash flooding

This project is protecting a highly urbanized area that suffers from flash flooding. The flooding covers low-lying roads causing public safety issues; two drownings occurred since the project authorization in 1996. The flooding causes about \$3.9 million in average annual damages to businesses and homes along Duck Creek.

The project will help protect the public, and protect 35 residential, commercial, and industrial structures to the annual one percent chance of exceedance level (100-year level of protection). Project features include levees, floodwalls, a pump station, a culvert, automated floodgate closure, and an emergency access road. The project also includes replacement of a railroad bridge to provide a wider stream opening, demolition of an abandoned highway bridge, installation of a flood emergency warning system, and environmental mitigation.

Construction was initiated in 1999. The signature project feature is a 1,150-foot long, 14-feet high, and 48-feet wide, reinforced concrete arch culvert that bypasses floodwaters around an oxbow bend. The Louisville District is currently constructing floodwalls and earthen levee along the upstream reach of the creek and anticipates completion of the project in 2011.



#### **Enhanced Funding and Performance**

The enhanced plan program contains funding for completion of ongoing construction projects and highest return studies. The enhanced funding would bring some studies and projects to an earlier completion.

Table 4: FCSDR Five-Year Enhanced Plan by Account (\$ Millions)

Fiscal Year	2009	2010	2011	2012	2013
Investigations	\$42	\$38	\$34	\$32	\$30
Construction	\$723	\$782	\$793	\$769	\$716
Operation and Maintenance (O&M)	\$625	\$646	\$662	\$671	\$699
Mississippi River and Tributaries (MRT) Investigations	\$1	\$1	\$1	\$1	\$0
MRT Construction	\$70	\$69	\$68	\$67	\$67
MRT O&M	\$133	\$137	\$142	\$147	\$152
MRT Remaining Items	\$2	\$2	\$2	\$2	\$2
Total	\$1,596	\$1,675	\$1,702	\$1,689	\$1,666
Note: Includes CAP and Remaining Items					

#### **Initiatives for Enhanced Plan**

- Accelerate the Levee Safety Program
- Accelerate high-performing projects and thus avoid potential cost increases in the future
- Accelerate Construction projects such as: Sacramento River Bank Protection Project in California, and Bray's Bayou in Houston, Texas
- Accelerate Investigation projects such as: Upper Trinity River Basin in Texas, Sutter County in California, San Joaquin Delta Islands and Levees in California

Table 5: FCSDR Five-Year Enhanced Plan Budget and Performance

Fiscal Year	2009	2010	2011	2012	2013
Budget (\$ Billions)	\$1,596	\$1,675	\$1,702	\$1,689	\$1,666
Additional People Protected in Flood Plain (000)	1,769	222	565	1070	376
Cumulative People Protected in Flood Plain (000)	1,769	1,991	2556	3626	4002
Annual Benefits Brought On Line (\$ Millions)	\$ 107	\$ 239	\$ 160	\$ 58	\$ 38
Cumulative Annual Benefit Brought On Line (\$ Millions)	\$ 107	\$ 346	\$ 507	\$ 564	\$ 602

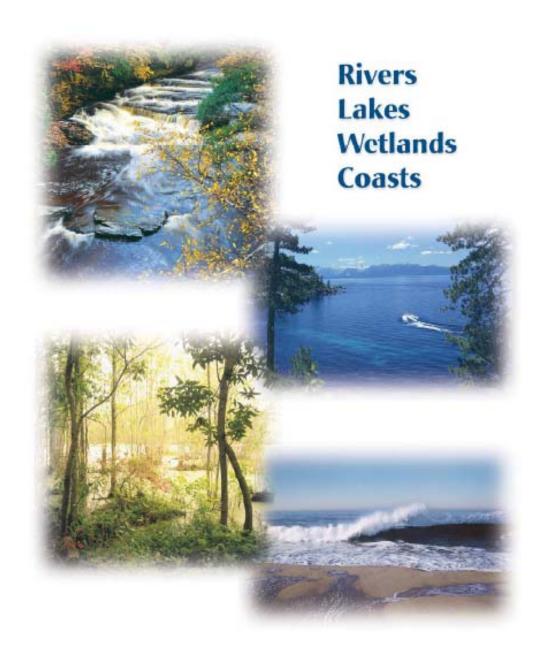
#### Potential Work with "Wedge Money"

If "wedge" money for new starts was received for this business program, additional projects could be considered. While specific funding decisions would be made at that time, several examples of projects that could be considered are:

- Washington DC and Vicinity
- Marysville/Yuba City Levee Reconstruction, CA

## **Environment**

- o Aquatic Ecosystem Restoration
- o Environmental Stewardship
- Formerly Utilized Sites Remedial Action Program (FUSRAP)



## Aquatic Ecosystem Restoration



-Mud Lake Restoration near Dubuque, Iowa

#### **Key Statistics**

- ❖ In FY09, this program accounted for approximately 6% of the Civil Works program request.
- ❖ The \$185 million request for continuing implementation of Everglades Restoration is the largest in the history of the program.
- ❖ The base program includes \$20 million for the Louisiana Coastal Area project, of which \$10 million will be used to further the Science program to inform the ongoing study.

#### **Accomplishments**

- The ecosystem restoration program, although relatively young, has a history of results across the nation in both large and small projects.
- About 18,000 acres of habitat were restored, created or protected, of which approximately 50% was nationally significant in FY06 and FY07; the remaining acreage represented the priories of state and local sponsors.
- An additional estimated 18,000 acres are projected to be completed in FY08, of which almost 90% is nationally significant

#### **Future Challenges**

Local desires for Federal assistance and willingness to cost-share individually authorized projects drive this program rather than any national programmatic assessment that identifies the most critical or endangered ecosystems. Nevertheless, the demand for funding aquatic ecosystem restoration projects surpasses the resources available to respond. In the absence of a standard performance measure to be used across all agencies, the Corps has been working to develop significance criteria to assist in evaluating and prioritizing projects. This would eventually allow objective comparison of disparate ecosystem restoration projects that occur in varied geographic regions across the country.

#### **Program History and Performance**

This subprogram supports the Civil Works Strategic Goal 2 and objectives as described below:

<u>Strategic Objective 2.1:</u> Restore degraded, significant ecosystem structure, function, and processes to a more natural condition as applicable.

<u>Sub Objective is 2.1.1</u>: Invest in restoration projects or features that make a positive contribution to the Nation's environmental resources in a cost-effective manner.

**Table 1: Aquatic Ecosystem Restoration Historical Funding and Performance** 

Fiscal Year	2003	2004	2005	2006	2007	20084
Appropriation (\$ Millions)	\$383 \$413		\$408	\$516	\$578 <sup>3</sup>	515
Acres of habitat restored, created, improved, or protected	Not	te 1	32,573	13,000	4,800	17,800
Nationally significant acres of habitat restored, created, improved, or protected				5,500	3,000	15,400
Cost per acre to restore, create, improve, or protect nationally significant habitat		Note 2	2	\$9,800	\$6,770	\$2,400
Percent of all restored, created, improved, or protected acres of habitat that is nationally significant				42%	62%	Note 5

Note 1: This measure was added at the end of FY04, and FY05 is the first year of complete data.

Note 2: Performance measures were developed in FY06, and it is the first year of reporting.

Note 3: '07 and '08 numbers include all remaining items assigned

Note 4: Results are estimates

Note 5: Measures revised January 08. This measure will not be reported in the future as an annual number

Cost per acre is based only on nationally significant projects completing in the specified year. It is strongly influenced by individual projects of very high acreage and low cost.

Table includes CAP and Remaining Items

#### Spring Lake Islands and Peninsula, Pool 5

Upper Mississippi River Environmental Management Program Habitat Rehabilitation and Enhancement Projects

Peninsula portion of the project completed in 1995.
Island stabilization, island /mudflat restoration and backwater dredging started in 2004 and completed in 2006.

1930 1951 1991 2007





-Jeff Janvrine, Wisconsin DNR

Figure 1: Spring Lake Islands, Buffalo City, Wisconsin

Spring Lake is a 300-acre backwater lake located on the Wisconsin side of the Mississippi River within the Upper Mississippi River National Wildlife and Fish Refuge. Natural islands along the west side of Spring Lake had eroded and many had disappeared since the creation of Pool 5 (a river segment created by a dam). Previously, these islands protected the lake from the effects of the main river channel and reduced wind fetch and associated wave action. Island loss was degrading the fish and wildlife habitat in the lake because of higher turbidity levels and undesirable aquatic plant bed conditions. The project consisted of building islands along the west side of the lake and within the lake to restore habitat and diversity. Material was dredged from Spring Lake for island fill and topsoil, creating additional deeper areas for fish habitat. The project will slow the degradation of about 200 acres of valuable backwater fish and wildlife habitat, directly affecting two-thirds of the lake. Project construction began in September 2004 and was completed in June 2006. Planting of trees on the islands will finish the project in 2008. Total cost of the project is about \$4,395,000. This example is typical of the program's work.

#### **Performance Measures**

The applicable performance measures contained in the Aquatic Ecosystem Restoration 2007 Program Assessment Rating Tool (PART) include the following:

- Acres of habitat restored, created, improved, or protected. This is an annual output measure and the baseline is FY05.
- Acres of habitat restored, created, improved, protected within a four-year period. This long-term output measure is an aggregate of the total acres for a period of four years. For example, the 2009 target reflects the actual and target data for FY06 thru FY09.
- \* Nationally significant acres of habitat restored, created, improved, or protected. This measures the subset of acres of habitat restored each year that have high quality outputs as compared to national needs. This is an annual output measure.
- Nationally significant acres of habitat restored, created, improved, or protected within a fouryear period. This long-term output measure is an aggregate of the nationally significant acreage for a period of four years. The 2009 target reflects the actual and target data for FY06 thru FY09.
- ❖ Percentage of all acres of habitat restored, created, improved or protected in a four-year period that are nationally significant. The long-term goal is for 75 percent of the total acres restored, created, improved, or protected in a four-year period to be nationally significant. This is a long-term outcome measure. For example, the 2009 target reflects the actual and target data for FY06 thru FY09.
- Dollars per acre to restore, create, improve or protect nationally significant habitat. The cost of the projects that produce nationally significant acres in any given year will be used to calculate this figure. The goal would be to restore more acres per dollar expended in the long run through efficiencies in project execution or other considerations.
- ❖ Actual Versus Projected Construction Costs. This measure is under development and there is no current data. It will be an annual efficiency measure. The measure will monitor the changes in construction costs by comparing the cost in the initial Partnership Agreement for construction of a project to the actual costs at the completion of the project. The goal is that 75 percent of the projects completing in any one year should be within 15 percent plus or minus of the original cost estimate.
- ❖ In addition, the program is developing a measure to assess issues related to ecosystem quality and/or the complexity of hydrological factors associated with ecosystem restoration.

Starting with 2008 this business program is crediting acres in a given year when physical construction is complete, instead of the last year that the project is budgeted in the construction account. This is due to the increased use of fully-funded contracts and the out-year monitoring requirements for many projects.

The Aquatic Ecosystem Restoration business program developed a set of <u>five criteria that</u> together provide a basis for evaluating project significance and aid in setting FY 09 funding <u>priorities</u>. The five criteria are weighted and criteria have been established to determine the extent to which a project contributes to the measure (data on these performance measures are not included in this report).

#### The criteria are:

- 1) **Habitat scarcity and status:** The goal is to promote the restoration of scarce habitat with an emphasis on nationally scarce habitat that continues to become scarcer.
- 2) **Connectivity:** Criterion addresses the extent to which a project facilitates the movement of native species by contributing to the connection of other important habitat pockets within the ecosystem, region, watershed, or migration corridor, or adds a critical component to an ecosystem or increases biodiversity.
- 3) **Special Status Species:** Acknowledges projects that provide a significant contribution to some key life requisite of a special status species.
- 4) **Plan Recognition**: Documents the extent to which a project contributes to watershed or basin plans as emphasized in the Civil Works Strategic Plan.
- 5) **Self Sustaining:** Ecosystem sustainability is the ultimate goal of restoration efforts but is difficult to measure. As a proxy, the cost of the project's average annual Operation and Maintenance cost is used to measure the degree of project sustainability.

The first three measures are used to determine national and regional significance. These criteria are reviewed and revised annually and additional measures are being tested in order to improve the basis for determining the quality of restoration projects.

#### **Project Spotlight: Everglades**

**District:** Jacksonville District

**Location:** South Florida

Link: www.evergladesplan.org

The objective of the South Florida Everglades Ecosystem Restoration Program is to restore, protect and preserve the south Florida ecosystem, while providing for other waterrelated needs of the regions. The South Florida Greater Everglades ecosystem includes a diverse mosaic of upland,

marsh, freshwater, estuarine, and saltwater habitats in a watershed encompassing approximately 16,000 square miles.



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 Project, Modified Water Deliveries Project, and the Comprehensive Everglades Restoration Plan (CERP). In FY09, the program is funded at \$185 million.

Under C&SF a systems approach is used in the implementation of CERP. Individual CERP projects are selected based on the principal of "system formulation". Individual projects are justified and evaluated based on their contribution to overall hydrologic connectivity and synergistic impact in the immediate and larger watershed context. The project's separable elements must be consistent with the Governor's Commission's Conceptual Plan and produce independent, immediate, and substantial restoration, preservation and protection benefits. Four projects have been completed under this authority; a fifth is nearly complete; and a sixth is expected in coming few years. In this discussion we highlight two components: Kissimmee River Basin and Modified Water Deliveries.

The Kissimmee River Basin (pictured) is approximately 3,000 miles located square between Orlando and Lake Okeechobee. Work is being completed to restore and re-establish similar historic wetland conditions for more than 40 square-miles of river-floodplain ecosystem including almost 27,000 acres of wetlands and 52 miles of historic river channel. To date, 10 miles of the 22 miles of the C-38 canal have been backfilled, restoring



hydrologic conditions. Native flora and fauna have responded with dramatic improvements. Continuing construction in the next few years is expected to include backfill work on the remaining canal reaches and will restore significant segments of the original river system.

The Modified Water Deliveries to Everglades National Park (MWD) involves construction of modifications to the C&SF Project and related operational changes to provide improved water deliveries to Everglades National Park. These modifications will improve hydrologic connectivity between the Water Conservation Areas north of the Park and across the Tamiami Trail (Highway 41) to the headwaters of Shark River Slough within the Park, while providing flood mitigation to the 8.5 Square Mile Area (SMA- a residential area adjacent to the Park). Wetland habitat in the Park should improve through deep sloughs and sheetflow restoration in the Northeast Shark River Slough, and promoting a more natural hydroperiod while reducing the biological affects that the C&SF Project has had on the Park.

#### **Base Funding**

The total FY09 budget request for the program is \$286 million. The base program for studies and design includes continuing requirements not to exceed FY08 amounts, plus additional work on the highest performing studies and design efforts with preference given to high performing studies in the last year of a phase.

Aquatic ecosystem restoration is a relatively new program, as is the science required to develop effective restoration projects. The FY09 program continues to emphasize research on Environmental Benefits Assessment that will contribute to increased program consistency, enhanced reliability of benefit estimates, and scientifically supported project justifications. This will eventually result in improved performance measures and assessment, as well as improvements in priority setting, evaluation and accountability in accordance with the goals of the PART.

Budget priority is placed on studies or projects that contribute to the cost-effective restoration of regionally or nationally significant ecosystems where the Corps is uniquely well suited due to the requirement for hydrologic and geomorphic alterations or where a Corps project has contributed to the degradation of the area to be restored. The objectives of the business program, with regard to budgeting high-performing projects, are to implement projects that provide high value, cost-effective outputs. Value is determined by assessing the project in terms of its impact on scarcity, connectivity, special status species, plan recognition and sustainability.

Table 2: Aquatic Ecosystem Restoration Base Funding (In Millions)

Fiscal Year	2	2009		2010		2011		2012		2013
Investigations	\$	35	\$	25	\$	24	\$	23	\$	23
Construction	\$	245	\$	242	\$	239	\$	239	\$	239
Operation and Maintenance (O&M) Estimate	\$	2		\$ 2	\$	2	\$	2	\$	2
Mississippi River and Tributaries (MRT) Investigations	\$	-	\$	-	\$	-	\$	-	\$	-
MRT Construction	\$	4	\$	4	\$	3	\$	2	\$	2
MRT O&M Estimate	\$	-	\$	-	\$	-	\$	-	\$	-
Total	\$	286	\$	273	\$	267	\$	266	\$	266
Note: Includes Continuing Authorities Program (CAP) and Remaining Items										

#### **Base Plan Highlights**

- The FY09 proposed program would restore approximately 26,000 acres, of which almost 50% would be considered nationally significant and the remaining are considered important by sponsors for overall ecosystem health.
- Optimal funding of \$20 million for the Louisiana Coastal Area study, including \$10 million for the study and \$10 million for the Science program.
- Further advancement and support of the collaborative database developed as part of the Great Lakes Habitat Initiative (one of the five FY06 Watershed studies).
- Everglades work is funded at \$185 million
- Upper Mississippi River Restoration is funded at \$20 million.
- \$6.25 million for continuing work on the Chicago Sanitary and Ship Canal Dispersal Barriers I and II.
- The Operation and Maintenance account includes funds for cost-shared O&M for the Seminole-Big Cypress Project in the Everglades, which will result in improvements to 14,000 acres of wetlands. The O&M requirements for completing Everglades projects are anticipated to grow to \$5 million over the next five years.

The following table displays outputs that would be produced in the base plan program FY09 thru FY13, based on completion of construction of additional projects.

**Table 3: Aquatic Ecosystem Restoration Base Funding and Performance** 

Fiscal Year	2009	2010	2011	2012	2013			
Appropriation (\$ Millions)	\$ 286	\$ 273	\$ 267	\$ 266	\$ 266			
Acres of habitat restored, created, improved, or protected	26,633	1,084,615	100	0	0			
Acres of habitat restored, created, improved, protected within a four-year period.	62,294	NA	NA	NA	1,084,715			
Nationally significant acres of habitat restored, created, improved, or protected	12,633	1,084,615	100	0	0			
Nationally significant acres of habitat restored, created, improved, or protected within a four-year period.	36,502	NA	NA	NA	1,084,715			
Percent of all restored, created, improved, or protected acres of habitat that are nationally significant	47%	100%	100%	0	0			
Percentage of all acres of habitat restored, created, improved or protected in a four-year period that are nationally significant.	59%	NA	NA	NA	100%			
Cost per acre to restore, create, improve, or protect nationally significant habitat	\$3,300	\$841	\$20,000	0	0			
Comparison of estimated costs of construction with actual costs.	This measure is under development.							

Note: Cost per acre is based only on nationally significant projects completing in the specified year. It is strongly influenced by individual projects of very high acreage and low cost.

#### **Enhanced Funding and Performance**

The enhanced plan will improve program performance beyond the base plan. More acres will be restored, created or improved throughout FY09 to FY13. Approximately one million more acres can be restored over the base plan by FY13. Some projects planned in the base can be advanced more quickly with additional funds. Completing projects more quickly can lead to even higher project outputs in future years since restoration projects start flourishing once complete. The estimated costs in the enhanced are less because economies of scale are easier to reach with more acres being restored, which could lead to more efficient use of funds.

**Table 4: Aquatic Ecosystem Restoration Enhanced Funding** (In Millions)

Fiscal Year	2	2009		2010		2011		2012		2013	
Investigations	\$	54	\$	41	\$	38	\$	15	\$	14	
Construction	\$	327	\$	345	\$	382	\$	408	\$	434	
Mississippi River and Tributaries (MRT) Project	\$	5	\$	5	\$	5	\$	5	\$	5	
Operation and Maintenance (O&M)	\$	2	\$	3	\$	4	\$	4	\$	5	
MRT O&M Estimate	\$	-	\$	-	\$	-	\$	-	\$		
Total	\$	388	\$	394	\$	429	\$	432	\$	458	
Note: Includes CAP and Remaining Items											

#### **Enhanced Plan Initiatives**

- Advance South Florida Everglades project
- Advance Upper Mississippi River Restoration
- Advance Lower Columbia Restoration

The following table displays outputs produced in the enhanced plan program FY09 thru FY13, based on completion of construction of additional projects.

Table 5: Aquatic Ecosystem Restoration Enhanced Funding and Performance

Fiscal Year	2009	2010	2011	2012	2013	
Appropriation (\$ Millions)	\$ 388	\$ 394	\$ 429	\$ 432	\$ 458	
Acres of habitat restored, created, improved, or protected	29,133	1,276,715	0	739,000	6,400	
Acres of habitat restored, created, improved, protected within a four-year period.	64,794	NA	NA	NA	2,022,115	
Nationally significant acres of habitat restored, created, improved, or protected	15,133	1,084,715	0	739,000	0	
Nationally significant acres of habitat restored, created, improved, or protected within a four-year period.	39,002	NA	NA	NA	1,823,715	
Percent of all restored, created, improved, or protected acres of habitat that are nationally significant	52%	85%	0	100%	0	
Percentage of all acres of habitat restored, created, improved or protected in a four-year period that are nationally significant.	60%	NA	NA	NA	90%	
Cost per acre to restore, create, improve, or protect nationally significant habitat	\$2,880	\$840	0	\$520	0	
Comparison of estimated costs of construction with actual costs.	This measure is under development.					

Note: Cost per acre is based only on nationally significant projects completing in the specified year. It is strongly influenced by individual projects of very high acreage and low cost.

#### Potential Work with "Wedge Money"

If "wedge" money for new starts was received for this business program, additional projects could be considered. While specific funding decisions would be made at that time, several examples of projects that could be considered are:

#### Some examples are:

- Louisiana Coastal Area Restoration
- Chesapeake Bay Oyster Restoration, Maryland and Virginia
- Jackson Hole, Wyoming

## Environmental Stewardship



#### **Key Statistics**

- Stewardship provided on about 12 million acres comprising about 8% of Federal acreage east of the Rockies
- ❖ About 4.3 million Corps acres have significant waterfowl use or improvement potential
- Help conserve 105 federally listed threatened or endangered species
- ❖ Nearly 56,000 known cultural resources sites exist on Corps property; 1,500 listed on the National Register of History Places and 9,800 eligible for listing

#### **Accomplishments**

- Participating in recovery of 53 federally listed threatened or endangered species on 133
   Corps operating projects. These efforts contributed to the delisting of the bald eagle.
- Stewardship on Corps lands and waters provides the basis for quality outdoor recreational opportunities, and annually supports 100 million fishing visits, 9 million hunting visits, and 63 million wildlife watching visits
- The Audubon Society and the American Bird Conservancy designated 23 Important Bird Areas on Corps properties.
- Program manages diverse resources to promote sustainability, e.g. fish, wildlife, water, woodland, wetland, and cultural. These administered acres provide key habitats: water, edge, forage, cover, and critical green space for human populations.

#### **Future Challenges**

- Completing basic inventories of existing natural resources and their conditions to improve management effectiveness and efficiency
- Improving the condition of Corps lands and waters such that they are sustainable and available for future generations while balancing increasing and conflicting demands for the use and development of project lands and water
- Meeting the minimum requirements of environmental mandates for resource protection, health and safety
- Prioritizing use of constrained fiscal resources.

#### **Program History and Performance**

The Stewardship program supports Civil Works Strategic Goal 3 and five of its objectives. Seven performance measures assess progress toward meeting the identified goal and objectives.

<u>Strategic Objective 3.1</u>: Improve the efficiency and effectiveness of existing Corps water resources projects.

- ❖ **Performance Outcome 1:** Program efficiency is achieved. A percentage of program expenditures are recovered or leveraged through prudent natural resources use in accordance with the program mission.
  - Efficiency Performance Measure: Cents per dollar of agency operations and maintenance spending that the program lessees or licensees pay for. This assesses Federal costs avoided in relation to the program's cost, as an indicator of program efficiency. Annual revenue is from timber sales revenue, agricultural leases, and related contributions consistent with the resource protection and conservation program missions. For example, timber harvests are sometimes necessary to support healthy forested lands, and to prevent disease or wildfire. The timber must be disposed at Federal cost, or sold when possible to minimize disposal cost. Revenue is recovered by the project of origin. In many cases, revenues are used to replant, reseed and or otherwise reclaim the site and results in no net revenue gain. Revenue recovered is equivalent to the federal costs avoided and will vary each year due to the nature and extent of the sustainability practices implemented. This measure is included in the Stewardship PART; however, since the revenue generating sources cannot be predicted, this measure is not a driver for budget development.

<u>Strategic Objective 3.1.3</u>: Ensure healthy and sustainable lands and waters and associated natural resources on Corps lands in public trust to support multiple purposes.

- ❖ Performance Outcome 2: Corps lands and waters are maintained in, or managed toward, a healthy and sustainable condition. Intensive management needs and costs are reduced as lands move to a healthy, sustainable state.
  - Healthy and Sustainable Lands and Waters Performance Measure: Percent of healthy and sustainable acres on Corps fee-owned property. This is defined as the number of Corps fee-owned acres classified as in a sustainable condition divided by the total number of Corps fee-owned acres. The result provides an indicator of the condition status of all Corps fee-owned acres. Sustainable is defined as meeting the desired state. The acreage is not significantly impacted by any factors that can be managed and does not require intensive management to maintain the health. The acreage also meets operational goals and objectives set forth in applicable management documents.

<u>Strategic Objective 3.1.3.1</u>: Protect, preserve and restore significant ecological resources in accordance with master plans.

- **❖ Performance Outcome 3:** Endangered and threatened species are protected on Corps property.
  - Endangered Species Protection Performance Measure: This measure is a percent defined as the total number of projects that are meeting Endangered Species Act (ESA) requirements of the year divided by the total number of Corps projects that have ESA compliance requirements in the year.
- ❖ **Performance Outcome 4**: The identification and assessment of quality and quantity of ecological resources on Corps property is achieved.
  - Level One Natural Resources Inventory Completion Performance Measure: Percent of minimum Level One Natural Resources Inventory completed on Corps property. This demonstrates the status of Corps efforts in completing basic, Level One Natural Resources Inventories required by Engineer Regulation 1130-2-540. Such inventories are necessary for sound resource management decisions and strategies development. The minimum inventory includes four standard components on each project: 1) classification and 2) quantification of vegetation, wetland, and land (soils) capability acreage as 3) identification and 4) assessment of special status species for potential existence on Corps acreage. This is defined as the sum total acres of completed inventory for each of the four components divided by four times the total number of Corps fee-owned acres. The proportion (%) yielded is used to evaluate the relative completeness of the Inventory.
- ❖ Performance Outcome 5: Balanced public use and access to Corps project natural resources is achieved, while accomplishing Corps project missions.
  - Master Plan Completion Performance Measure: Percent of Corps-operated water resource projects with completed Master Plans in compliance with Engineer Regulation 1130-2-550 of the total number of required Master Plans. A Master Plan is completed, per regulation, to foster an efficient and cost-effective project for natural resources, cultural resources, and recreational management programs. It provides direction for project development and use, and promotes the protection, conservation, and enhancement of natural, cultural and man-made resources. The Master Plan is a vital tool for responsible stewardship and demonstrates Corps commitment to fully integrate environmental stewardship.

<u>Strategic Objective 3.1.3.2</u>: Ensure that the operation of all Civil Works facilities and management of associated lands, including out-granted lands (lands leased or licensed to others for various purposes), complies with the environmental requirements of relevant Federal, state, and local laws and regulations.

- **Performance Outcome 6:** Cultural resources on Corps property are managed in accord with cultural resources management mandates.
  - Cultural Resources Management Performance Measure: Percent of projects meeting federally mandated cultural resources management responsibilities. This demonstrates the status of efforts to protect and preserve cultural resources on Corps administered

lands and waters. It is defined as the total number of Corps projects meeting federally mandated cultural resources management responsibilities divided by the total number of Corps projects with federally mandated cultural resources management responsibilities.

<u>Strategic Objective 3.1.3.3</u>: Meet the mitigation requirements of authorizing legislation or applicable Corps authorization decision document.

- ❖ **Performance Outcome 7:** Corps requirements are met for the mitigation of impacts to ecological resources, as specified in project authorizing legislation.
  - Mitigation Compliance Performance Measure: Percent of Corps administered mitigation lands (acres), or the percent of pounds or numbers of mitigation fish produced at mitigation hatcheries, meeting the requirements in the authorizing legislation or relevant Corps authorization decision document. This measure demonstrates Corps status in meeting mitigation requirements that are specified in project authorizations. Achievement of mitigation contributes to restoring lands and other resources to a healthy and sustainable condition. The measure is defined as either the mitigation acres meeting mitigation requirements divided by the total designated mitigation acres, or the total mitigation fish produced divided by the total mitigation fish needed to meet requirements.

#### **History**

Funding and performance history for the Environmental Stewardship business program as a distinct entity did not exist prior to FY05, when budgeting by business program was first implemented. Performance results data are presented in Table 1 for all measures applicable in a given year. Some historic data was incomplete and therefore inaccurate due to inconsistent implementation of a new data collection system deployed in late FY05. However, the actual results for each measure are displayed in the table as they were recorded each year. Results are directly related to, and derived from, the funding provided.

**Table 1: Environmental Stewardship Historical Funding and Performance** 

Fiscal Year	2	2005		2005		2006		2007		2008	
Operation and Maintenance (O&M)	\$	91	\$	85	\$	93	\$	106			
Mississippi River and Tributaries (MR&T O&M)	\$	9	\$	9	\$	2	\$	4			
Appropriation (\$ Millions)	\$	100	\$	94	\$	95	\$	110			
Mitigation Compliance		76%		61%		86%	,	100%			
# Acres meeting mitigation requirement (in millions)	(	0.390		0.273	(	0.497	(	0.578			
# Acres authorized for mitigation (in millions)	(	0.610		0.448	0.578		0.578				
# lbs of mitigation fish produced (millions)							1.167				
# lbs of mitigation fish required (millions)						-	1.167				
# of mitigation fish produced (millions)							19.62				
# of mitigation fish required (millions)						-	•	19.62			
Endangered Species (ES) Protection		NA		NA		NA	1	00%			
# Projects meeting ES Act requirements						-		237			
# Projects with ES Act requirements						-		237			
Cultural Resources Management	NA		NA N		63%		72%				
# Projects meeting cultural resources requirements						153		141			
# Projects with cultural resources requirements						244	197				
Healthy and Sustainable Lands and Waters		37%		37%		21%		18%	25%		
# Fee acres classified as in sustainable condition (millions)		1.06		1.41		1.45		2.00			
# Fee acres (millions)		2.80		6.73		7.94		7.94			
Level One Natural Resources Inventory Completion Index		33%		38%		40%		41%			
Average # acres with completed inventory (millions)		2.33		2.54		3.24		3.30			
Average # acres requiring inventory (millions)		7.17		6.99		7.94		7.94			
Master Plan Completion		32%		27%		27%		27%			
# Up-to-date master plans		101		104		101		101			
# Master plans required		306		380		379		379			
Efficiency (cents per dollar)	\$	0.09	\$	0.10	\$	0.12	\$	0.01			
\$ Revenue (millions)	\$	9.23	\$	9.87		11.38		1.10			
\$ Appropriation (millions)	\$	100	\$	94	\$	95	\$	110			
Note: 2008 values are estimated											

Improved annual performance is noted in Mitigation Compliance and Endangered Species Protection Performance Measures. The annual minimal requirements of environmental and legal mandates are projected to be met in FY08. However, past constrained budgets have allowed meeting only the highest priorities: the minimal requirements of Cultural Resources Management, and Healthy and Sustainable Lands and Waters outputs. For Cultural Resources Management, the number of projects with an annual compliance requirement decreased from FY07 to FY08. However, the number of projects that satisfy the annual requirements remained fairly constant, causing the estimated performance output percentages to increase. For Healthy and Sustainable Lands and Waters Performance Measure acreage, performance was projected based on work and output descriptions, prior year results, and the similar budget amounts for these activities, from FY07 to FY08. It is noted more than half of the FY08 Stewardship program budget was intended to accomplish the critical annual requirements of endangered

species, mitigation, and cultural resources. These requirements do not exist on every Corps project. Approximately \$4 per acre was available to support most stewardship responsibilities: those remaining mandated or essential, day-to-day requirements necessary at each project to meet project purposes; prevent resources degradation or loss; and achieve healthy and sustainable lands.

Results in Level One Natural Resources Inventory and Master Plan Completions have remained fairly constant. Constrained past budgets have limited progress and additional output is budget dependent in these areas. The Efficiency results have averaged at \$0.10 recovered on each dollar of program funding, exceeding the annual target. Since the efficiency result is not directly related to the budget and revenue recovery may not be predicted, the target was set at \$0.01 each year to avoid promoting revenue recovery at the expense of resource sustainability.

#### **Project Spotlight: Fern Ridge**

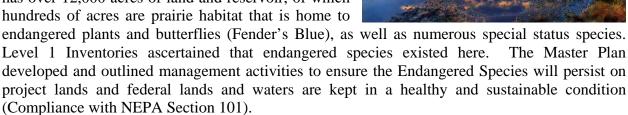
**District:** Portland District

Location: Southern Willamette

River Valley in Oregon

**Project:** Healthy and Sustainable Lands and Endangered Species

The Fern Ridge Dam provides for flood damage reduction, fish and wildlife, irrigation, recreation, navigation, and improved water quality. Fern Ridge has over 12,000 acres of land and reservoir, of which hundreds of acres are prairie habitat that is home to



Land management activities included prescribed burns, removal of non-native vegetation, enhancing native vegetation through seed collection and plantings, and creating habitat diversity. These land management functions are done in partnership with multiple agencies and also serve to benefit recreation opportunities at the lake by providing pristine natural areas for hiking, bird



watching, and hunting. In addition, management and habitat development for the Fender's Blue Butterfly is improving its viability at and near Fern Ridge in several ways. Habitat development provides sufficient food resources for the species and allows populations to expand to habitats both on and off Corps lands. This all helps protect the species from extinction and potentially lead toward recovery.

#### **Base Funding and Performance**

Under the Base Plan Scenario in Table 2, the funding for Stewardship decreases. This plan projects output reductions, or no output gains for measures, because work may be delayed, conditions deteriorate, and costs increase. Continued flat or declining funds impact the ability to maintain healthy resources conditions. Timely and effective management actions that help prevent resource degradation and that promote sustainability are essential to meet Corps environmental trustee responsibilities. Some of these actions would likely be delayed as funding to support these efforts decreases. Management needs grow quickly in scope and often become more expensive when important management efforts are forgone, such as the control of invasive species, and threaten the continued viability of native ecological resources.

A strong emphasis in meeting specific environmental mandates and requirements continues in this scenario. In any given year, there may be several minimum output requirements for certain projects. Most of these minimum output requirements are met successfully, however, the success of meeting requirements is contingent on funding levels during the given year. Cultural Resources Management responsibilities will not be fully met in this funding scenario. Risk to cultural resources will likely be higher, since the minimum required management activities go unfunded.

A related decrease in anticipated performance output will manifest over the period. Over the five-year period, vital stewardship requirements (such as trespass and encroachment prevention; erosion, fire, pest, and invasive species control and prevention, boundary surveillance and monitoring, and shoreline use evaluation), and staffing levels necessary to achieve Healthy and Sustainable Lands and Waters outputs could remain unfunded. Similarly, the cost for those efforts could increase, forcing the annual targets to trend downward. Outputs for Healthy and Sustainable Lands and Waters could shift to avoid a compromise of minimum safe project operating conditions.

The Level One Natural Resources Inventory Completion and Master Plan Completion performance targets will not change over the five-year period, due to targeting resources at other priority activities. Lack of progress compromises the ability to develop and implement best resource management strategies and decisions. This is due to the lack of standard up-to-date resource quality and quantity data, and up-to-date project resources management guides.

Efficiency targets are held at \$0.01 recovered per program dollar over the five-year term, to maintain consideration of the program goal, but to avoid promoting revenue recovery at the expense of resources sustainability.

**Table 2: Environmental Stewardship Base Funding** 

Fiscal Year	2009	2010	2011	2012	2013
Investigations	-	-	-	-	-
Construction	-	-	-	-	-
Mississippi River and Tributaries (MRT) Project	-	-	-	-	-
Operation and Maintenance (O&M)	90	86	86	86	86
MRT O&M	5	3	3	3	2
Total	\$ 95	\$ 89	\$ 89	\$ 89	\$ 88
Note: Includes Remaining Items					

#### **Initiatives for Base Plan**

The program priorities are aligned with goals and objectives of the Civil Works Strategic Plan. Initiatives in the Base Plan scenario include meeting the minimum critical requirements of environmental and legal mandates to assure project compliance, assuring safe project operation, and preventing loss or degradation of resources. To the extent practicable, the Base Plan will seek to maintain performance output levels close to those achieved in FY08, and to minimize impacts to the program outcome of Healthy and Sustainable Lands and Waters.

**Table 3: Environmental Stewardship Base Funding and Performance** 

Fiscal Year	2	009	2	2010		011	2	2012		013
Operation and Maintenance (O&M)	\$	90	\$	86	\$	86	\$	86	\$	86
Mississippi River and Tributaries (MR&T O&M)	\$	5	\$	3	\$	3	\$	3	\$	2
Appropriation (\$ Millions)	\$	95	\$	89	\$	89	\$	89	\$	88
Mitigation Compliance		100%		98 %		98%		98%		98%
# Acres meeting mitigation requirement (in thousands)		0.578		0.566		0.566		0.566		0.566
# Acres authorized for mitigation (in thousands)		0.578		0.578		0.578		0.578		0.578
# lbs of mitigation fish produced (millions)		1.16		1.16		1.16		1.16		1.160
# lbs of mitigation fish required (millions)		1.16		1.16		1.16		1.16		1.160
# of mitigation fish produced (millions)		19.62		19.62		19.62		19.62		19.62
# of mitigation fish required (millions)		19.62		19.62		19.62		19.62		19.62
Endangered Species (ES) Protection		100%		99%		99%		99%		98%
# Projects meeting ES Act requirements		164		162		162		160		160
# Projects with ES Act requirements		164		164		164		164		164
Cultural Resources Management		67%		57 %		57%		57%		57%
# Projects meeting cultural resources requirements		143		120		120		120		143
# Projects with cultural resources requirements		212		212		212		212		212
Healthy and Sustainable Lands and Waters		27%		26 %		25%		24%		23%
# Fee acres classified as in sustainable condition (millions)		2.14		2.06		1.98		1.90		1.82
# Fee acres (in millions)		7.94		7.94		7.94		7.94		7.94
Level One Natural Resources Inventory Completion Index		46%		46%		46%		46%		46%
Average # acres with completed inventory (millions)		3.65		3.65		3.65		3.65		3.65
Average # acres requiring inventory (millions)		7.94		7.94		7.94		7.94		7.94
Master Plan Completion		27%		27%		27%		27%		27%
# Up-to-date master plans		106		106		106		106		106
# Master plans required		380		380		380		380		380
Efficiency (cents per dollar)	\$	0.01	\$	0.01	\$	0.01	\$	0.01	\$	0.01
\$ Revenue (millions)	\$	0.95	\$	0.89	\$	0.89	\$	0.89	\$	0.88
\$ Appropriation (millions)	\$	95	\$	89	\$	89	\$	89	\$	88

#### **Enhanced Funding and Performance**

The Enhanced Plan Scenario in Table 4 provides increased annual funding over the five-year period; however, the effective value of each increase is diminished due to inflation. The projected performance measures of the enhanced plan are based on historic performance results and funding. In general, minor incremental increases in performance output may be realized over the five-year period as most program outputs are budget dependent. This scenario seeks to

maintain or improve performance outputs and to accomplish the overall program outcome of Healthy and Sustainable Lands and Waters.

High targets for outputs of Mitigation Compliance and Endangered Species Protection continue to meet specific critical requirements of environmental mandates. Minor increases in Cultural Resources Management outputs are also anticipated in each year. Resource losses are prevented, but completely meeting annual requirements is not anticipated in any year of this scenario. Together, maintenance, or minor improvements continue to positively support the objectives to manage Corps lands and resources to comply with environmental requirements of relevant Federal laws and regulations, and to protect or conserve significant ecological resources.

Acreage targets, classified in a sustainable condition, are also increased to advance the program's overall outcome. Nearly one third of Corps fee-owned acreage is projected to be classified in this condition by FY13. Target increases for Level One Natural Resources Inventories are raised slightly to promote completion of high priority inventories over the period. However, only a small number of additional Master Plan completions will be afforded over the period due to constrained funds. This scenario moderately addresses actions of the Stewardship PART Improvement Plan, which identifies completing inventories and masters plans to facilitate improved efficiency and effectiveness in long term management of natural and cultural resources. As explained previously, the Efficiency measure targets hold constant at \$0.01 recovered per dollar of program funding over the term.

**Table 4: Enhanced Five-Year Budget** 

Fiscal Year	2009	2010	2011	2012	2013
Investigations					
Construction					
Mississippi River and Tributaries (MRT) Project					
Operation and Maintenance (O&M)	93	96	99	103	105
MRT O&M	5	5	5	5	5
Total	\$ 98	\$101	\$104	\$108	\$110
Note: Includes Remaining Items					

#### **Initiatives for Enhanced Plan**

- Meet minimum requirements of environmental and legal mandates to assure project compliance and safe operation
- Prevent loss or degradation of resources and promote the sustainability of resources
- Advance the completion of high priority project natural resource inventories and master plans, which guide the effective and efficient management of existing project natural and cultural resources. This initiative implements actions identified in the Environmental Stewardship PART Improvement Plan.

**Table 5: Environmental Stewardship Enhanced Budget and Performance** 

Fiscal Year	2	009	2	2010		011	2	012	2	013
Operation and Maintenance (O&M)	\$	93		96		99		103		105
Mississippi River and Tributaries (MR&T O&M)	\$	5		5		5		5		5
Appropriation (\$ Millions)	\$	98	\$	101	\$	104	\$	108	\$	110
Mitigation Compliance		100%		100%		100%		100%		100%
# Acres meeting mitigation requirement (in thousands)		0.578		0.578		0.578		0.578		0.578
# Acres authorized for mitigation (in thousands)		0.578		0.578		0.578		0.578		0.578
# lbs of mitigation fish produced (millions)		1.16		1.16		1.16		1.16		1.160
# lbs of mitigation fish required (millions)		1.16		1.16		1.16		1.16		1.160
# of mitigation fish produced (millions)		19.62		19.62		19.62		19.62		19.62
# of mitigation fish required (millions)		19.62		19.62		19.62		19.62		19.62
Endangered Species (ES) Protection		100%		100%		100%		100%		100%
# Projects meeting ES Act requirements		164		164		164		164		164
# Projects with ES Act requirements		164		164		164		164		164
Cultural Resources Management		100%		100%		100%		100%		99%
# Projects meeting cultural resources requirements		212		212		212		212		209
# Projects with cultural resources requirements		212		212		212		212		212
Healthy and Sustainable Lands and Waters		27%		29%		31%		34%		36%
# Fee acres classified as in sustainable condition (in millions)		2.14		2.31		2.48		2.73		2.90
# Fee acres (in millions)		7.94		7.94		7.94		7.94		7.94
Level One Natural Resources Inventory Completion Index		46%		47%		47%		52%		52%
Average # acres with completed inventory (millions)		3.65		3.76		4.12		4.15		4.28
Average # acres requiring inventory (millions)		7.94		7.94		7.94		7.94		7.94
Master Plan Completion		27%		28%		30%		31%		31%
# Up-to-date master plans		106		115		121		121		114
# Master plans required	_	380		380		380		380		380
Efficiency (cents per dollar)	\$	0.01	\$	0.01	\$	0.01	\$	0.01	\$	0.01
\$ Revenue (millions)	\$	0.95		1.01		1.04		1.08		1.10
\$ Appropriation (millions)	\$	95	\$	101	\$	104	\$	108	\$	110

### Potential Work with "Wedge Money"

This program is not included in the assumptions for potential wedge funding in this Five Year Development Plan.

## **FUSRAP**

#### Formerly Utilized Sites Remedial Action Program



-Linde Air Products, NY

#### **Key Statistics**

- There are currently23 active sites located in9 states.
- The program remediates more than 125,000 cubic yards (on average) of contaminated material per year.
- Currently more than \$1 billion additional dollars needed to complete work on active sites.

#### **Accomplishments**

- Remedial activities completed on schedule at the St. Louis Airport site in Missouri
- Remedial activities completed 2 years ahead of schedule at the Colonie site in New York
- Scheduled remediation activities completed at the Painesville site
- The program excavated 185,646 cubic yards of contaminated material in FY07.
- Four of six OMB Program Assessment Rating Tool (PART) performance measure goals met or exceeded.

#### **Future Challenges**

- Increased soil volumes and disposal costs found in FY07 affect future years such as:
  - o Linde Site in Tonawanda, New York (additional \$30 million)
  - o Painesville Site in Painesville, Ohio (additional \$4 million)
  - o Maywood Site in Maywood, New Jersey (additional \$40 million)
- Additional eligible, "potential" sites are currently being evaluated:
  - o Joslyn Manufacturing Site in Fort Wayne, Indiana
  - o New Brunswick Vicinity Property in New Jersey (in progress of being referred)
  - o DOE considering Callite Tungsten referral as eligible for potential inclusion to the program in Union City, New Jersey
- Progress for this program is commensurate with funding.

# **Program History and Performance**

Strategic Goal 2 and Strategic Objective 2.3 directly relate to FUSRAP and influenced its specific objective. The FUSRAP Strategic Objective has correlating outcomes and those outcomes have various performance measures.

<u>FUSRAP Strategic Objectives 2.3.1:</u> Achieve the clean-up objectives of the Formerly Utilized Sites Remedial Action Program.

**Performance Outcome:** To minimize risk to human health and the environment.

#### **Performance Measures:**

- Number of Records of Decision (RODs) signed. The number of RODs will increase
  as studies are completed and best alternatives for cleanup activities are decided. A
  ROD establishes the final cleanup standard, which controls the actual estimate of the
  remaining environmental liability for each site.
- Number of Remedial Investigations (RI) completed. The RI establishes the baseline risk assessment whereby the level of risk to human health and the environment is identified.
- Number of action memorandums signed. Where warranted by risk or other limited factors, action memorandums allow the Corps to move toward reducing risk more rapidly than through production of a ROD. No action memorandums are presently identified.
- ❖ **Performance Outcome:** To maximize the cubic yardage of contaminated material disposed in a safe and legal disposal facility.

#### **Performance Measures:**

- Cubic yardage of contaminated material disposed. Target soil amounts after FY08 are dependent on previous year funding and scheduled activities. Therefore, at this time it is not possible to predict target soil amounts for out-years.
- Total cost of disposal of contaminated material as measured in cubic yards. Currently this measure is scheduled to be evaluated at the end of FY09.
- ❖ **Performance Outcome:** To return the maximum number of affected individual properties to beneficial use.

#### **Performance Measures:**

- Number of individual properties returned to beneficial use.
- ❖ **Performance Outcome:** To have all remedies in place as quickly as possible within available funding limits

#### **Performance Measures:**

- Cumulative percentage of FUSRAP funding that is expended on cleanup activities rather than studies.
- As the program matures, the percentage of funding expended on cleanup activities will be greater than funding spent on conducting studies.
- Currently this measure is scheduled to be evaluated at the end of FY08 and FY16.

- Number of remedies in place or response complete.
- As select portions of sites or complete sites meet their remedial action goals, the risk to human health and the environment is reduced to within acceptable levels and properties are able to be used within a community without fear of increasing cancer risk or further degrading the environment.

## **History**

Funding for the program has been relatively stable in nominal terms, although program scope has increased. Corps began managing FUSRAP in FY98 and the current program performance measures were developed in 2004. In FY05, the program received \$24 million above the President's Budget. That year performance measure targets were exceeded in four categories. Performance measures from FY98 through FY04 are shown as a roll-up under FY04 in the following table.

**Table 1: FUSRAP Funding and Performance History** 

Fiscal Year	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Appropriation (\$ Millions)	\$140	\$150	\$140	\$144	\$139	\$ 139	\$ 164	\$ 139	\$ 139	\$ 140
Number of Records of Decision (RODs) signed						9	3	2	2	3
Remedial Investigations completed						21	5	4	0	2
Action Memos signed						3	0	1	0	0
Cubic yardage of contaminated material removed (in thousand cubic yards)	Pei		ce Mea loped in		rere	2,927	243	225	186	125
Total cost of disposal of contaminated material		uevei	ореа пт	2004		\$ 675	NE	NE	NE	NE
Individual Properties returned to beneficial use						65	5	15	27	34
Cumulative Funding expended on cleanup rather than studies						77%	NE	NE	NE	NE
Remedies in place or response complete						4	2	0	3	1
Note: "NE" means not e	valuate	d, FY08	is estin	nated, F	Y98 Fu	ınding wa	as \$163 M	lillion.		

The program met or exceeded four of six performance measure targets set for FY07. Two additional targets were not measured in FY07 and will not be measured until the conclusion of FY08. One target was not met because the Corps was unable to complete the review process for the Luckey Groundwater Record of Decision. However, the document is on track to be

completed in early FY08. The second target was not met because the Remedial Investigations for the Niagara Falls Storage site was completed, but won't complete the review process until FY08. Also, the Corps has found significantly more than the estimated volume of contaminated materials on several sites. At this time, no Action Memorandums are planned for any of these sites. However, this performance measure may change, pending the results of Remedial Investigations currently being conducted at some sites. The total cost of disposal of contaminated material will be next measured in FY09, according to the FUSRAP Program Assessment Rating Tool (PART) target evaluation plan. The performance measures is the amount of funding expended on cleanup rather than studies will next be measured in FY08, according the FUSRAP PART target evaluation plan.

# **Project Spotlight: Maywood Chemical Company Superfund Site**

**District:** New York District

**Location:** Maywood, New Jersey (20 miles north of Newark adjacent to Interstate 80 and State Route 17)

Link: www.fusrapmaywood.com

The Maywood site is on the EPA's Superfund National Priorities List. The site is 40 acres with 88 residential, commercial and industrial properties. There are approximately 281,000 cubic yards of subsurface contaminated



material containing thorium-232, radium-226, and uranium-238. The Corps is working under the Federal Facilities Agreement (FFA) signed by Department of Energy (DOE) and EPA, while negotiating a Corps/EPA FFA. About 25 percent of the land is federally owned and is being used as a cleanup staging area. The Corps completed potentially responsible party (PRP) negotiations through the Department of Justice with the Stepan Company. The Stepan Company, operating a chemical factory, and Sears, operating a large distribution warehouse, occupy part of the site. The clean-up process began in the mid-1980s with about a third of the properties. The Corps remediated 23 of an additional 39 remediated properties by FY00 based on a 1994 DOE Engineering Evaluation/Cost Analysis (EE/CA). After FY00, the Corps completed a Remedial Investigation/Feasibility Study/Proposed Plan, Record of Decision, Remedial Design (RI/FS/PP/ROD/RD) for the remainder. The Corps also prepared an EE/CA for an interim removal action for 10 commercial properties impacted by the New Jersey Department of Transportation projects. The Corps also initiated remedial action for the remainder soils and this remaining cleanup plan is estimated to cost approximately \$450 Million beyond FY08.

## **Base Funding and Performance**

The five-year funding would enable the program to have seven individual portions (operable units) completed, as shown in the following table. These figures do not include adjustments for inflation or labor costs. Transportation costs have been increasing in recent years at a rate greater than inflation due to the increase in fuel costs and the demand for rail lines and rail cars; thus, reducing buying power. The table below shows the program with respective performance measures.

Work plans in FY09 and out-years will be developed by setting the following priorities:

- health & safety issues (evaluation and management of site risk)
- legal requirements
- program goal of closing out sites.

**Table 2: FUSRAP Five-Year Base Funding Plan and Performance** 

Fiscal Year	2009	2010	2011	2012	2013
Appropriation (\$ Millions)	\$ 130	\$ 121	\$ 122	\$ 121	\$ 121
Number of RODs signed	2	2	2	1	1
Remedial Investigations completed	1	1	1	1	0
Action Memos signed	0	0	0	0	0
Cubic yardage of contaminated material removed (in thousand cubic yards)	140	140	140	140	140
Total cost of disposal of contaminated material	\$ 600	TBD	TBD	TBD	TBD
Individual Properties returned to beneficial use (annually)	3	4	4	5	4
Cumulative Funding expended on cleanup rather than studies	81%	82%	82%	83%	83%
Remedies in place or response complete	1	1	1	2	2

Source: Information developed by CECW-IN during FY09 budget preparation. "NE" means not evaluated.

#### **Base Plan Initiatives**

- Coordination with other agencies on disposal contracts: Transportation and disposal remain a large percentage of project costs. The Corps is working to coordinate disposal requirements with the Department of Energy (DOE) and the Department of Defense (DOD) executive agent for radioactive waste disposal in order to reduce disposal costs.
- **Risk-informed waste management**: The Corps is working with the Nuclear Regulatory Commission (NRC) to find ways to manage waste according to a material's risk to the public, workers, and the environment, rather than by its pedigree or origin. This is per recent recommendations from the National Academies of Science.

#### Stakeholder buy-in on program goals:

- o The Corps is working to focus more site specific and national stakeholder attention on the overall program, the goals of protecting the public, and closing out sites. The Corps is working to show how individual site decisions impact this goal.
- O The Corps continues to coordinate with the Department of Energy's (DOE) Legacy Management (LM) GOAL 4: Management of legacy land and assets, emphasizing protective real and personal property reuse and disposition. DOE's goal is to increase the percentage of LM managed federal property in beneficial reuse, which would decrease management costs. Four DOE properties are being managed and remediated by the Corps under FUSRAP. The remediated Wayne property in New Jersey has been transferred as park land to the local community in coordination with DOE. In addition, the Colonie and the Middlesex Sampling Plant sites in New Jersey are moving toward completion. The closure of these two sites will also help DOE to meet or exceed their goals.
- o The Corps is coordinating with the Nuclear Regulatory Commission (NRC) on four sites that will help them to meet their license termination strategic goal. The Corps is currently investigating if this strategic goal is directly related to NRC's Program Assessment Rating Tool (PART) measures.

### **Enhanced Funding and Performance**

Projects would be accelerated with enhanced funding. If the program were to receive funding as projected in the Enhanced Plan Scenario for FY09 – FY13, 11 remedies would be completed as shown in the following table. Some contracts for disposal of radioactive materials are expiring in FY08 and prices are expected to increase significantly. The increased funding level for FY09 would enable projects to take better advantage of the remaining disposal capacity on current contracts. The program for the five years and respective performance measures are shown in table below.

Table 3: FUSRAP Five-Year Enhanced Funding Plan and Performance

2009	2010	2011	2012	2013
\$ 145	\$ 148	\$ 151	\$ 154	\$ 157
1	1	2	2	1
2	1	1	0	0
NE	NE	NE	NE	NE
165	170	170	180	180
\$ 600	NE	NE	NE	NE
5	5	8	6	6
81%	82%	83%	83%	84%
2	2	2	2	3
	\$ 145 1 2 NE 165 \$ 600 5 81%	\$ 145  \$ 148 1	\$ 145  \$ 148  \$ 151  1	\$ 145  \$ 148  \$ 151  \$ 154 1

Source: Information developed by CECW-IN during FY09 budget preparation. "NE" means not evaluated.

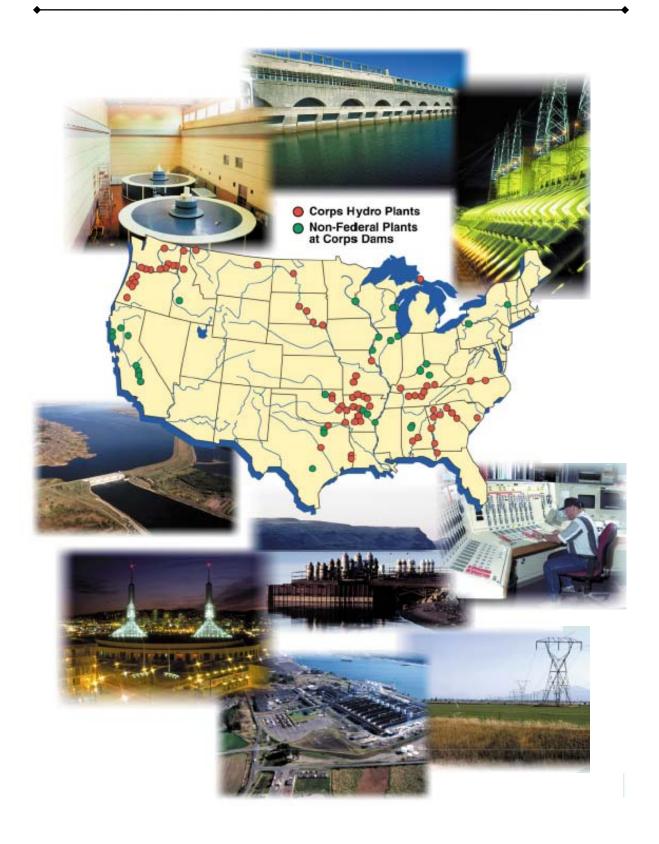
## **Enhanced Plan Initiatives**

- Iowa Army Ammunition Plant: Increases funds at a National Priorities List (NPL) site and shows good faith under the recent Federal Facilities Agreement in place with the state of Iowa, EPA, & DOE.
- Maywood Site in New Jersey: Accelerates completion of three Nuclear Regulatory Commission (NRC) licensed pits.
- Shallow Land Disposal Area in Pennsylvania: Accelerates soil removal completion
- Niagara Falls Storage Site in New York: Complete remedial action at Building 401
- Sylvania Corning Plant in New York: Advances work on the remedial investigation.
- St. Louis Airport Vicinity Properties in Missouri: Accelerates completion of soil removal and returns numerous private properties to beneficial use.

# Potential Work with "Wedge Money"

The FUSRAP Program is not included in the assumptions for potential wedge funding in this Five Year Development Plan.

# Hydropower



# Hydropower



-Chief Joseph Dam on the Columbia River, WA

### **Key Statistics**

- There are 75 power plants at Corps dams totaling a rated capacity of 20,475 Megawatts (MW), and a maximum capability of 22,800 MW
- Own and operate 350 hydroelectric units that represents 24% of the nations hydropower capability and 3% of the total electric capability
- Corps hydropower plants produce over 71 billion kilowatt-hours of average annual energy
- ❖ Hydroelectric power sales repay approximately \$1 billion annually to the U.S. Treasury
- ❖ 90 non-federal power plants are Federal Energy Regulatory Commission (FERC) licensed to operate at Corps dams producing about 2,300 MW of capacity

# Accomplishments

- Completed initial condition assessment of nine major components of all 350 generating units and initiated additional assessment guides for power plant auxiliary components
- Developed a risk matrix to quantify infrastructure risk exposure and make more informed budgeting decisions in FY10
- Developed policy (scheduled for Spring 2008 approval) to meet the FERC's Electric Reliability Compliance standards
- Developed evaluation measure to accurately assess operations and maintenance costs and associated budgeting. This tool will be used to evaluate future budgets
- Completed a congressional report with other federal hydropower agencies to identify potential hydropower development at existing facilities as directed by the 2005 Energy Policy Act
- Completed major rehabilitation on J. Strom Thurmond powerhouse located on the Savannah River near Savannah Georgia in FY07
- Completion of major rehabilitation on the Walter F. George powerhouse, located on the Chattahoochee River north of Columbia, Alabama, in FY08

# **Future Challenges**

The primary challenges are related to asset management. Aging infrastructure and constrained funding for operating, maintaining, and replacing hydropower assets are difficult to balance. Due to the current state of the infrastructure, program performance measures have consistently been below industry standards for the previous eight operating years, except in the Pacific Northwest, where Bonneville Power Administration directly finances operation and maintenance and infrastructure modernization. The key challenge to the program is incrementally improving program performance by targeting finite resources at the highest return projects over the next five years.

#### **Program History and Performance**

The Hydropower Business Program supports the Civil Works Strategic Goal 3 and five of its objectives. Five performance measures are used to assess program progress toward meeting the identified goal and objectives.

<u>Strategic Objective 3.1</u>: Improve the efficiency and effectiveness of existing Corps water resources projects.

#### **Performance Measures:**

- ❖ Forced Outage Rate: This measures system reliability against industry standard. It is the percentage of regions achieving a system-wide annual forced outage rate of 2 percent or less. A region is considered a Corps Major Sub-Command or Division.
- ❖ Peak Availability Rate: This measures system reliability. It is the percentage of regions achieving a system-wide availability of 95 percent during peak demand season. A region is considered a Corps Major Sub-Command or Division.
- ❖ Rate of Compliance to FERC Reliability Standards: This measures the number of reliability standards met or exceeded across all Corps hydropower facilities. It is the percent of Federal Energy Regulatory Commission (FERC) approved electric reliability standards, which applies to Generator Owners and Operators in the bulk power system that are met or exceeded. This is a new measure and should be available for FY08.
- ❖ Amount of generating capacity rated as poor: This measures the percent of unit generating capacity that has a component of its major power train rated as poor (as a result of a condition assessment with the hydroAMP Conditions Assessment tool). This is a new measure and should be available for FY08.
- ❖ Meet O&M cost efficiency target: This is an efficiency measure. It is the percentage of regions whose facilities achieve O&M cost efficiency as measured by cost per megawatthour or cost per megawatt, adjusted for unit size, compared to similar hydropower facilities. This is a newer measure and data should be available in FY09.

The total budgeted amount shown in Table 1 does not directly impact Hydropower Program performance measures. In any given budget year, approximately 35 to 40 percent of the program's budgeted amount is funding requirements for Columbia River fish recovery programs in the Pacific Northwest. In FY08, only 61 percent of the total budgeted amount will actually fund projects that directly affected performance measures. Therefore, about 35 to 40 percent of the program's budget is not used for hydropower maintenance, operations, or improvements that impact the performance measures.

**Table 1: Hydropower Historical Funding and Performance** 

Fiscal Year	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total Appropriation (\$ Millions)	NA	NA	\$ 215	\$ 185	\$ 194	\$ 245	\$ 285	\$ 263	\$ 285	\$ 291
Forced Outage (percent)	2.25%	2.60%	3.03%	3.69%	3.73%	4.28%	4.94%	3.98%	4.33%	4.65%
Peak Unit Availability (percent)	94.25%	91.66%	91.64%	89.71%	88.58%	87.33%	87.10%	88.47%	86.45%	85.25%
O&M Cost Efficiency Benchmark (\$/MWh)	NA									

Note: 2008 values for Forced Outage and Peak Unit Availability are estimates. O&M Cost Efficiency data will not be available unit FY08.

Source: O&M Business Information Link Database

### Project Spotlight: Ozark-Jeta Lock and Dam Power Plant Major Rehabilitation



**District:** Little Rock District

**Location:** Arkansas

**Project:** Multi-purpose, run-of-the-river, 100 MW, 5-unit power plant. This plant has had the Corps' highest forced

outage rate for the past 10 years.

The Ozark-Jeta power plant major rehabilitation project is a 5-year effort to replace five mechanical turbines and other major components of the units. Due to deficient design, the units have experienced frequent failures over the past 15 years. The proposed five-year funding plan, in addition to the turbine replacements, would replace the low-speed gear boxes and rehabilitate or replace the generators coolers, powerhouse crane,

governors, circuit breakers, and other components. The total project cost is \$84.4 million. The benefits of this project would be improved plant reliability, avoided costs of energy purchases, and a reduction in greenhouse gas emissions and forced outages, and improvements in peak availability. More than \$2 million in annual power purchases will be avoided and peak plant availability would improve to above 90%. The Southwestern Power Administration, which markets the power from the Ozark-Jeta power plant, depends on Ozark-Jeta energy generation to deliver firm reliable hydropower to its customers and increase revenue returns to the U. S. Treasury from power sales. A contract was awarded in 2005 for the Ozark-Jeta major rehab project. Non-federal funding sustained it through FY07 when funding was not included in the federal budget. This project is scheduled for completion in 2012 assuming funding continues.

# **Base Funding and Performance**

Budget priorities include increasing the reliable operation of hydropower facilities, assessing and reducing risks of major equipment failures, and quantifying consequences, both economically and operationally, of infrastructure failure. Additionally, improving upon percent of time generating units are available when electrical power is needed the most is another key program priority.

This Base Plan for the Hydropower Program is primarily driven by reducing maintenance backlogs and making investments in major maintenance. Major rehabilitations and replacements are included in this plan. However, the Base Plan does not address all maintenance and investment needs. As discussed under History, approximately 35 to 40 percent of the program's budgeted amount is funding requirements for Columbia River fish recovery programs in the Pacific Northwest.

**Table 2: Hydropower Base Funding by Accounts** 

Fiscal Year	2009		2010		2011		2012		2013	
Investigations	\$	-	\$	-	\$	-	\$	-	\$	-
Construction	\$	43	\$	43	\$	36	\$	30	\$	8
Operation and Maintenance (O&M) Estimate	\$	276	\$	258	\$	259	\$	257	\$	256
Mississippi River and Tributaries (MRT) Total	\$	-	\$	-	\$	-	\$	-	\$	-
Total	\$	319	\$	301	\$	295	\$	287	\$	264

#### **Base Plan Initiatives**

- Meeting approved Federal Energy Regulatory Commission (FERC) electric reliability standards and ensuring continued compliance. During the first half of FY08, the Corps developed and approved a corporate reliability compliance plan. An implementation plan will be executed during the latter half of FY08 to meet approved FERC reliability standards. As a result of the electrical energy blackout of 2003, the FERC was given the authority to require all users, owners, and operators of facilities connected to the bulk power system to meet mandatory electric reliability standards. Although the Corps of Engineers is protected by sovereign immunity as a federal agency, it has made a commitment to the FERC to voluntarily meet all approved reliability standards within constrains of appropriated resources.
- As part of the infrastructure reliability improvement initiative, risk will be assessed at each hydropower facility. It will measure risk exposure to major equipment breakdown or catastrophic failure and resulting economic and operational consequences, which will drive budget development decisions for FY10 and beyond.
- Continued funding of major rehabilitation Ozark-Jeta Lock and Dam Power Plant
- Continued funding of major rehabilitation John H. Kerr Powerhouse

**Table 3: Hydropower Base Funding and Performance** 

Fiscal Year	2009	2010	2011	2012	2013
Appropriation (\$ Millions)	\$ 319	\$ 301	\$ 295	\$ 287	\$ 264
Forced Outage (percent)	4.35%	4.20%	4.10%	3.95%	3.80%
Peak Unit Availability (percent)	85.60%	86.10%	86.50%	87.00%	87.50%

## **Enhanced Funding and Performance**

Enhanced funding level priorities over this five-year plan would eliminate the program's maintenance backlog and make significant investments in replacement of aged, inefficient and unreliable infrastructure, reducing risk exposure to major component failures. The Base Plan would only reduce this backlog and investment needs. High priority projects identified by low condition indices, high risk factors and significant benefits would be funded under this scenario.

**Table 4: Hydropower Enhanced Funding by Accounts** 

Fiscal Year	2009		2010		2011		2012		2013	
Investigations	\$	-	\$	-	\$	-	\$	-	\$	-
Construction	\$	43	\$	50	\$	39	\$	20	\$	8
Operation and Maintenance (O&M) Estimate	\$	340	\$	348	\$	360	\$	372	\$	380
Mississippi River and Tributaries (MRT) Total	\$	-	\$	-	\$	-	\$	-	\$	
Total	\$	383	\$	398	\$	399	\$	392	\$	388

#### **Initiatives for Enhanced Plan**

- Update and start construction on approved major rehabilitation plans
- Possibly launch the Hydropower Modernization Initiative. The key objective is to establish a programmatic approach to prioritizing major powerhouse rehabilitations. A ranking model will be developed based on physical conditions, environmental impacts, plant importance to electrical system, and customer considerations.
- Sustain performance improvements from previous investments: sustain repair for O&M
- Projects could include several generator rewinds at projects such as the Allatoona in Alabama, Ft. Randall in South Dakota, Webbers Falls in Oklahoma, and further work on the Ozark-Jeta Major Rehabilitation in Arkansas.

**Table 5: Hydropower Enhanced Funding and Performance** 

Fiscal Year	2009	2010	2011	2012	2013
Appropriation (\$ Millions)	\$ 383	\$ 398	\$ 399	\$ 392	\$ 388
Forced Outage (percent)	4.30%	4%	4%	3%	3%
Peak Unit Availability (percent)	85.60%	87%	87%	88%	90%
Note: All values are estimates					

# Potential Work with "Wedge Money"

If "wedge" money for new starts was received for this business program, the funds could be utilized for the funding of additional hydropower major rehabilitations with a competitive benefit-to-cost ratio. While specific funding decisions would be made at that time, several examples of projects that could be considered are Ft. Randall in South Dakota, Barkley in Kentucky, Center Hill in Tennessee, Wolf Creek in Kentucky, and Whitney Dam in Texas.

# Regulatory





# What Does the Regulatory Program Mean to You?

Just a few of the benefits of an effective regulatory program are:

- Cleaner water;
- A healthier environment;
- More jobs; and
- A stronger economy.



# Regulatory



actions

- ❖ Acres of Wetland permitted = 13,101
- Acres of Wetland avoided = 6,005
- ❖ Acres of wetland mitigated = 32,757

## **Key Statistics in FY07**

- 100,000 public and private activities authorized
- 110,000 jurisdictional determinations completed
- Over 90% of actions authorized by General Permits
- ❖ Average Processing Time < 60 days for all



# **Accomplishments**

- Final Mitigation Rule developed and submitted to OMB
- Nationwide Permits Reissued
- Operation and Maintenance Business Link (OMBIL) Regulatory Module (ORM) 2 database implemented in every District
- Lean Six Sigma Pilot Studies completed; draft report pending
- Two Regional Delineation Manuals published, made significant advancement on four others
- Developed streamlining measures/practices for transportation and energy projects
- New Regulatory Program Standard Operating Practices completed and ready to be published

# **Future Challenges**

The Regulatory program continues to be scrutinized as development pressures mount and national public awareness of the aquatic environment continues to rise. Sensitivity to wetlands has resulted in greater direct input from the public and environmental interest groups, leading to greater complexity and controversy in the review of permit proposals. As the complexities grow, the delays in making permit decisions increase.

- The Carabell-Rapanos Decision, program complexities, inefficiencies, and decision-making delays, have been exacerbated by this Supreme Court decision on jurisdiction. The decision implementation in 2007 has caused a significant increase in workload, and delays in many jurisdictional determinations and permit actions (mostly on private property). This is due to the added documentation, field work and coordination with EPA. Hundreds of actions have been elevated to headquarters without additional resources, resulting in delays, in some cases over 200 days. The estimated annual cost to the program is \$30 million; these activities must compete with other, baseline activities for finite resources.
- Issuance of New Regulations: There is a critical need to issue regulations on Carabell-Rapanos and Definition of Fill in order to incorporate policy guidance by the field to make jurisdictional determinations more effectively and efficiently. The current Corps of Engineers Permit Processing Regulations and Historic Properties regulations are 20 years old, and in need of reissuance to incorporate current standards and practices, and update policies. Many programmatic inconsistencies and inefficiencies would be addressed via issuing new regulations.
- Completion of the new OMBIL Regulatory Module, version 2 (ORM 2) database is a third critical challenge. ORM 2 is a fully web based, geospatial data base that tracks the regulatory permit process, jurisdictional determination process and all needed data collection activities for the regulatory program. All Districts have implemented ORM 2, but data clean up is ongoing, and development of a project manager Standard Operating Practice (SOP) manual and management reports are outstanding.

# **Program History and Performance**

Strategic Plan Goal 2: Develop Sound Water Resource Solutions, Sub-objective 2c: Improve Regulatory process to balance development and environmental sustainability; achieve greater consistency and streamline systems; and improve responsiveness and efficiency in decision making directly relate to the Regulatory Program and influence the development of performance measures for the Regulatory Program. The eight performance measures were developed to greatly improve the implementation of the Regulatory Program nationally resulting in increased consistency, improved streamlining and efficiency, and better protection of the aquatic environment, with the overall result of well balanced decisions, which are also more responsive to customer needs. The Corps' Regulatory program has developed three specific strategic goals and PART performance objectives that are directly linked to our priorities.

**Strategic Regulatory Objective 1:** No Net Loss of Aquatic Resources

<u>Strategic Regulatory Objective 2:</u> Avoidance and Minimization of Impacts to Aquatic Resources

**Strategic Regulatory Objective 3:** Expedite Permit Processing

#### **Performance Measures**

The Corps measures the acres of wetlands impacted, avoided, and mitigated to confirm that the three goals are being met. However, to confirm that these goals are being met, the Corps defined eight performance measures, which are designed to be measured quickly and easily while providing data on the goals. The XX below indicate a blank value; the actual value is in the tables below.

- ❖ Individual Permit Compliance: The Corps shall complete compliance inspections on XX percent of the number of individual permits issued the preceding fiscal year, and select projects from those constructed within the preceding 5 years.
- ❖ General Permit Compliance: The Corps shall complete compliance inspections of XX percent of the number General Permits (GPs and NWPs) with reporting requirements issued the preceding fiscal year, and select projects from those constructed within the preceding 5 years.
- ❖ Mitigation Site Compliance: The Corps shall complete field compliance inspections of XX percent of active mitigation sites each fiscal year. Active mitigation sites are those authorized through the permit process and being monitored as part of the permit process but have not met final approval under the permit special conditions.
- ❖ Mitigation Bank/In Lieu-Fee Compliance: The Corps shall complete compliance inspections/audits on XX percent of active mitigation banks and in lieu fee programs annually.
- ❖ **Resolution of Non-compliance Issues**: The Corps will reach resolution on non-compliance with permit conditions and/or mitigation requirements on XX percent of activities

- determined to be non-compliant at the end of the previous fiscal year and determined to be non-compliant during the current fiscal year.
- ❖ Resolution of Enforcement Actions: The Corps shall reach resolution on XX percent of all pending enforcement actions (i.e., unauthorized activities) that are unresolved at the end of the previous fiscal year and have been received during the current fiscal year.
- ❖ General Permit Decisions: The Corps shall reach permit decisions on XX percent of all General permit applications within 60 days.
- ❖ Individual Permits: The Corps shall reach permit decisions on XX percent of all Standard permits and Letter of Permission (LOPs) within 120 days. This standard shall not include Individual Permits with Formal Endangered Species Act (ESA) Consultations.

The Corps' Regulatory program has been collecting permit and enforcement data over the past 15 years. Compliance data has been collected only for the last four years in a newer database. A summary of the historic funding and performance data is shown in Table 1.

**Table 1: Regulatory Historic Funding and Performance** 

Fiscal Year	2002	2003	2004	2005	2006	2007	2008
Appropriation (\$ Millions)	NA	\$138	\$139	\$143	\$158	\$159	\$180
Individual Permit Compliance	21%	18%	16%	14%	14%	11%	10%
General Permit Compliance	7%	6%	5%	5%	7%	7%	5%
Mitigation Compliance	13%	15%	11%	9%	10%	7%	5%
Mitigation Bank Compliance	25%	25%	20%	19%	25%	63%	20%
Non-compliance Resolution	33%	30%	26%	24%	37%	56%	20%
Enforcement Resolution	25%	25%	37%	23%	58%	82%	20%
General Permit processing	90%	88%	85%	85%	82%	80%	75%
Individual Permit Processing	65%	58%	61%	61%	61%	53%	50%

#### **Project Spotlight:** Reissuance of Nationwide Permits



Nationwide Permits authorize activities that have minimal individual and cumulative impacts on the aquatic environment. The Nationwide Permits are a series of 49 permits; each authorizes a specific category of activities, such as aids to navigation, bank stabilization, road crossings, residential and commercial development and surface coal mining activities. These permits were reissued in March 2007 for a period of five years. On a national basis, the Corps of Engineers

approves 100,000 activities through its Regulatory Program, 90% of these authorizations are via nationwide or other general permits. The Corps of Engineers Regulatory Program has a significant impact on the economic activity of the entire nation, and these permits are a critical means of expediting permit decisions, while protecting the nation's aquatic resources. Average processing time for general permits is under 60 days.

### **Base Funding and Performance**

The proposed budget for FY09 funding is \$180 million, which is level funding in nominal terms compared to the 2008 level. It would result in deceases in performance for each of the 8 performance measures, and not reach target levels due to the decrease in 'real' dollars available of about 5 % based on inflation. Performance will decrease further due to the need to focus finite resources on implementation of the Carabell-Rapanos decision, estimated at approximately \$30 million annually. This represents about a 15% cut in the spending power of a \$180 million budget. This added workload will continue to pose a significant challenge on our Permit Managers to meet customer demands for timely permit decisions. The initial funding level would allow continued program work, but at a decreased level of productivity and timeliness, and would not provide funds to initiate or continue strategic objectives for the program, including watershed studies, new SAMPs (Special Area Management Plans), and new State Programmatic General Permits (SPGP's). The performance level for each of the measures is shown below.

The base plan program begins in FY09 with \$180 million, decreases for the next two years, and then drops slightly to \$167 million in FY13. All funds will be used to try to maintain performance by keeping personnel on board with flat and decreasing budgets; the number of permit managers will decline over the five-year period. This will lead to increasing permit processing times, fewer permits being issued, and significantly lower performance across all objectives as illustrated in Table 2.

**Table 2: Regulatory Base Funding and Performance** 

Fiscal Year	2009	2010	2011	2012	2013
Appropriation (\$ Millions)	\$ 180	\$ 167	\$ 169	\$ 168	\$ 167
Individual Permit Compliance	10%	8%	8%	7%	7%
General Permit Compliance	5%	5%	5%	4%	4%
Mitigation Compliance	15%	13%	12%	11%	8%
Mitigation Bank Compliance	25%	20%	20%	20%	15%
Non-compliance Resolution	20%	20%	15%	15%	12%
Enforcement Resolution	20%	18%	18%	15%	12%
General Permit processing	75%	75%	75%	75%	75%
Individual Permit Processing	50%	45%	45%	45%	45%

With the added costs of Carabell-Rapanos, decreasing or level funding (which results in costs of approximately 5% per year based on inflation), the number of project managers would decrease by approximately 10% to 15% between 2009 and 2013. This would result in significant degradation of both overall productivity and timeliness of Regulatory decisions, with fewer resources to devote to all program areas; in particular, compliance and enforcement would be greatly impacted.

# **Enhanced Funding and Performance**

The additional funding would be used to accelerate permit processing, compliance and enforcement activities, and jurisdictional determinations.

The enhanced plan program funding level for FY09 is \$246 million. For this level of funding, the program is in a better position to improve performance steadily, while addressing new workload requirements in response to the Carabell-Rapanos decision; performance would be projected to reach targets for all performance measures. The performance level for each of the measures is shown in following table.

In addition, funding would be available to start analyzing how to accomplish the watershed planning approach in permit processing and mitigation management. The watershed or systems approach is crucial to the program and meeting performance measures, because it would enable better coordination and collaboration with all parties, improved assessment techniques, and provide on-line access to Regulatory information for all parties. The watershed approach is designed to enable regulators to make more permit decisions faster on a regional basis, and with significantly improved environmental review. The watershed approach components that need to be funded include continued development of analytical tools for the assessment of cumulative impacts and acquisition of spatial data on wetlands that will be used by the Corps in conjunction

with other federal and state agencies, local governments and the public. Additional funds would be used for implementation of State Programmatic General Permits (SPGPs), a permit process where the states are enabled to make permit decisions on a specified subset of activities covered by existing state programs. This would lead to streamlined permit processes and "one stop shopping" for many common, low impact activities on aquatic resources.

The five-year enhanced plan program assumes the program funding starting at \$246 million and rising gradually to \$266 million in FY13. As the Corps Regulatory program is primarily funded for labor, performance would be expected to be sustained or decrease slightly as funding rises slightly below the normal inflation rate (approximately 5 percent per year). Table 5 provides estimates of decreases in performance as funding remains below the inflation level.

#### **Initiatives for Enhanced Plan**

- Minimize Decrease in Productivity and Performance
- Watershed Approach
- ORM 2 Database Enhancements
- Promulgate New Regulations
- Additional SPGPs

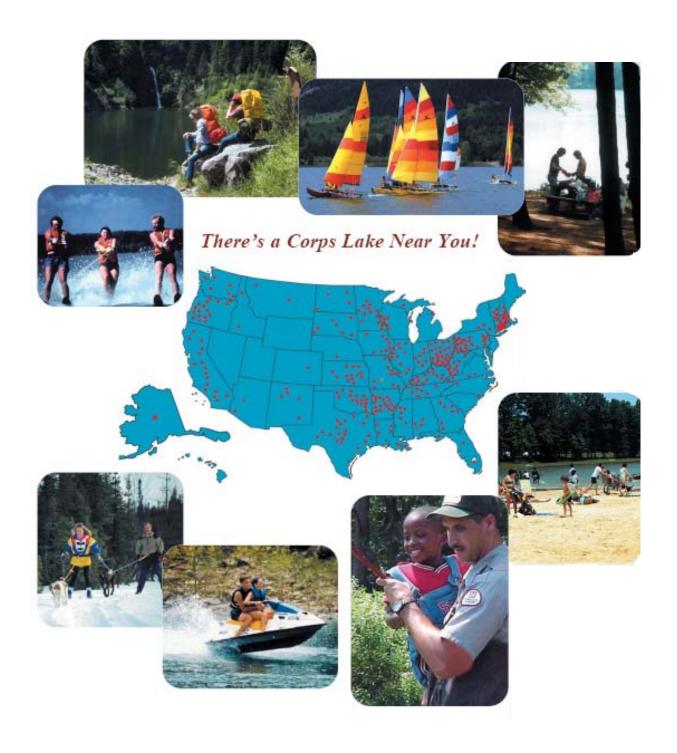
**Table 3: Regulatory Enhanced Funding and Performance** 

Fiscal Year	2009	2010	2011	2012	2013
Appropriation (\$ Millions)	\$ 246	\$ 251	\$ 256	\$ 261	\$ 266
Individual Permit Compliance	20%	20%	20%	19%	19%
General Permit Compliance	10%	10%	9%	8%	8%
Mitigation Compliance	20%	20%	19%	19%	18%
Mitigation Bank Compliance	50%	50%	45%	45%	40%
Non-compliance Resolution	30%	28%	27%	26%	25%
Enforcement Resolution	30%	28%	27%	26%	25%
General Permit processing	85%	85%	84%	84%	83%
Individual Permit Processing	70%	70%	69%	68%	67%

# Potential Work with "Wedge Money"

The Regulatory Business Program is not included in the assumptions for potential wedge funding in this Five Year Development Plan.

# Recreation



# Recreation



#### **Key Statistics**

- ❖ Largest Federal provider of outdoor recreation services. Over 4,300 recreation areas are located on Corps-managed lands at more than 400 lakes (352 budgeted projects) in 42 states.
- ❖ Leader in developing partnerships; about 1,800 (43%) of recreation areas are operated and maintained by other entities, such as states and local governments, under a lease or license agreement.
- ❖ Water-oriented recreation served 372 million visits at Corps sites and facilities in 2006
- ❖ 70% of U.S. population lives within 50 miles of a Corps lake offering recreation opportunities

### **Accomplishments**

- 372 million visits per year in 2006 resulted in \$13 billion on total trip expenses and \$5 billion on durable goods including \$8 billion spent by visitors on trips in communities around Corps lakes. This contributes around \$22.4 billion to the national economy with the 'multiplier effect' and supports around 350,000 jobs.
- Recreation opportunities combat one of the nations' most significant health problems: lack of physical activity.
- Recreational programs and activities also help strengthen family ties and friendships; educate
  the public; provide opportunities for children to develop personal skills, social values, and
  self-esteem; and improve water safety.

# **Future Challenges**

- All lakes with recreation facilities are struggling to maintain current levels of customer service and park quality in the face of flat budgets.
  - O Visitor safety is the highest priority. The Corps will continue to commit the necessary resources to programs that provide patrols, water safety education, etc. However, expanding or improving safety programs to accommodate more visitors and add safety is challenging with current funding levels.
  - Corps recreation facilities are 45 years old on average with more than 30% older than 50 years. These facilities need substantial renovations to meet health and safety requirements that would be more costly than annual maintenance.

- o Cost increases in contract maintenance, utilities, and operations costs often make service level reductions unavoidable.
- o Parks shorten operating seasons, close some day use and camping areas, and reduce visitor services.
- o High performing parks need improvements and maintenance. They also need a better funding prioritization process to plan for long-term increase in recreation growth.
- Current law does not allow recreation user fee retention at projects. Enactment of legislative proposals for expanded user fees and fee retention would help to finance recreation infrastructure maintenance and improvement.
- Working with stakeholders and the public to improve business practices and responsiveness to assure quality outdoor recreation is available for future generations

# **Program History and Performance**

The objectives and performance measures for the recreation business program are aligned with Civil Works Goal 3. Performance measures are directed toward three dimensions of the Recreation Program: Customer Service, Asset Management, and Program Efficiency.

<u>Strategic Objective 3.1.7:</u> Provide justified outdoor recreation opportunities in an effective and efficient manner at all Corps-operated water resources projects.

- ❖ Total NED Benefit Program Efficiency Performance Measure: contribution of Corps managed parks to National Economic Development (NED) benefits
- ❖ Benefits/Cost Efficiency Performance Measure: this is the ratio of NED benefits to actual expenditures or program budget
- ❖ Cost Recovery Efficiency Performance Measure: percentage of O&M spending paid through user fees; it is the amount of recreation receipts divided by the recreation program budget.

<u>Strategic Objective 3.1.8</u>: Provide continued outdoor recreation opportunities to meet the needs of present and future generations.

❖ Park Capacity Asset Management Performance Measure: this is a measure of the capacity of facilities in millions of site days/nights to provide recreation opportunities

<u>Strategic Objective 3.1.9</u>: Provide a safe and healthful outdoor recreation environment for Corps customers.

❖ Health and Safety Services Customer Performance Measure: the percent of visitors to Corps-managed recreation areas served at acceptable service levels. Activities that impact this measure are facility cleaning, mowing, visitor assistance, ranger patrols, park hosts, reservation services, and repairs), has been externally validated with visitors, partners, and other stakeholders.

- **❖ Facility Condition Asset Management Performance Measure:** this is an average Corps managed recreation area facility condition score, based on a seven point scale 1 = poor to 7 = excellent. Acceptable facility condition standard = 3.5 or better
- **❖ Facility Service Asset Management Performance Measure:** this is the percent of visitors served at acceptable facility condition standard

The following table presents a summary of the program's funding and performance. Performance information provided in the table is incomplete because the systematic program performance monitoring was initiated until 2004 with the development of Rec-BEST (Budget Evaluation SysTem) to support the budget development process.

**Table 1: Recreation Historic Funding and Performance** 

Fiscal Year	2001	2002	2003	2004	2005	2006	2007	2008		
Appropriation (\$ Millions)	\$252	\$261	\$274	\$262	\$270	\$268	\$267	\$267		
Visitor Health and Safety Services	NA	NA	NA	NA	NA	51%	50%	50%		
Park Capacity (millions of days)	NA	NA	NA	NA	74	74	74	74		
Facility Condition (Based on seven point scale: 1=poor to 7=excellent)	NA	NA	NA	3.7	3.7	3.7	3.7	3.7		
Facility Service (% of visitors served at 'acceptable' parks)	NA	NA	NA	NA	48%	48%	48%	48%		
National Economics Development (NED) Benefits (\$ Millions)	NA	NA	NA	1,223	1,243	1,216	1,171	1,126		
Program Efficiency (Benefit/Cost Ratio)	NA	NA	NA	4.28	4.3	4.27	4.27	4.22		
Cost Recovery (% of total Recreation Receipts to Budget)	13%	13%	13%	16%	16%	16%	16%	16%		
Note: Includes CAP and Remaining It	Note: Includes CAP and Remaining Items									

### Project Spotlight: Partnering at Lake Ouachita, Arkansas

**District:** Vicksburg

Location: On the Ouachita River near Royal, Arkansas and at Blakely Dam Project Type: Memorandum of Understanding (MOU) Partnership with the Lake Ouachita Citizen Focus Committee, Denby Bay Coalition, Arkansas Game and Fish Commission and Montgomery County, Arkansas



The Corps' Challenge Partnership Agreement has leveraged funding through partnerships to accomplish needed improvements to natural resources management sites and facilities. Lake Ouachita is one example. Lake Ouachita has crystal-clear waters making the lake a popular site for scuba diving along with numerous camping, fishing, horseback riding, boating, and swimming opportunities. Many of these activities are supported through partnerships including local governments, community groups, volunteers, and other non-federal entities.

Through the efforts of a local partner group, the Denby Bay Coalition, they leveraged the Corps' Handshake Partnership Grant into more than \$800,000 in partner contributions to build a trail. The Denby Bay Coalition has completed 14 miles of the Vista Hiking and Biking Trail. The third trail phase is 95% complete adding 6 more miles. The fourth phase is being investigated and volunteer "Pathfinders" are marking trail routes. This phase will be about 8 miles long connecting into the Crystal Springs Recreation Area. Denby Bay Coalition Members and individual volunteers have put in over 2000 volunteer hours assisting on Vista Trail construction, sign placement, bench placement, and initial trail maintenance.

In conjunction the Vista Trail, local grass root support engaged the Denby Bay Coalition to build a trail designed for the physically challenged. This quickly morphed into a Watchable Wildlife trail designed using Americans with Disabilities Act (ADA) principles. The ADA/Watchable Wildlife Trail is underway and will total 1.5 miles, including an elevated walkway exhibiting a wetlands environment.

Arkansas Game and Fish Commission along with project staff developed the ADA/Watchable Wildlife Elevated Trail (650' long X 6' wide) design plan, with Denby Bay Coalition volunteers currently installing the base support post. Montgomery County received a \$33,600 grant from the Arkansas Highway Department for the trail. The Arkansas Game and Fish Commission officially authorized and issued a \$150,000 grant for installing the elevated portion, and interpretive exhibits for the entire ADA/Watchable Wildlife trail. Through these partnerships, new alliances have been forged with local and state organizations for the betterment of Lake Ouachita, Montgomery County and the customers we serve.

### **Base Funding and Performance**

The recreation program focuses on providing acceptable service levels to visitors at Corps operated parks; however, the funding level will lead to declining service levels. Customer satisfaction is projected to steadily decline from decreasing Visitor Health and Safety Services, Site and Facility Condition, as a result of projected budget shortfalls. As part of customer satisfaction, the program will prevent essential recreation infrastructure loss for disabled visitors and mandated access. However, water safety initiatives will remain unfunded.

In regards to Asset Management, the Corps will maintain public outdoor recreation opportunities nationwide with total recreation unit days available near 60 million annually as measured by Park Capacity. This is a reduced availability due to resource constraints. Strategy includes a combination of reduced service levels and reduced recreation opportunities implemented through partial and/or complete closures. The Facility Condition will slightly decline; funding is targeted at critical maintenance activities to keep key recreation infrastructure functioning.

In regards to Program Efficiency, service levels at individual recreation sites will be maintained and/or adjusted to reflect the level of visitation, relative to the cost of such maintenance, at those sites. Program efficiency, as measured by a Benefit/Cost Ratio, will decline under the Base Plan program.

**Table 2: Recreation Base Funding by Account and Performance** 

Fiscal Year	2009	2010	1011	2012	2013
Operation and Maintenance (O&M)	\$ 255	\$ 293	\$ 239	\$ 237	\$ 236
MRT O&M	\$ 15	\$ 14	\$ 14	\$ 14	\$ 14
Appropriation (\$ Millions)	\$ 270	\$ 253	\$ 253	\$ 251	\$ 250
Visitor Health and Safety Services	47%	40%	38%	35%	32%
Park Capacity (millions of days)	60	60	60	60	60
Facility Condition (Based on seven point scale: 1=poor to 7=excellent)	3.6	3.6	3.5	3.5	3.4
Facility Service (% of visitors served at 'acceptable' parks)	45%	45%	44%	43%	42%
National Economics Development (NED) Benefits (\$ Millions)	1,118	1,043	1,038	1,025	1,015
Program Efficiency (Benefit/Cost Ratio)	4.14	4.12	4.10	4.08	4.06
Cost Recovery (% of total Recreation Receipts to Budget)	16%	16%	16%	16%	16%
Note: Includes CAP and Remaining Items		•	•		•

#### **Base Plan Initiatives**

The following initiatives are directed to improve program efficiency, sustainability and customer service:

- The Recreation Program Performance Improvement Initiative (RPPII) is directed toward
  - a) implementing new guidance toward park operations (including park closures),
  - b) developing guidance for modernization projects,
  - **c**) developing a suite of detailed management performance measures to improve program execution, and
  - **d**) sharing best practices using the Natural Resource Management Gateway to improve operational efficiencies.
- Civil Works Asset Management initiatives for recreation are directed toward optimizing infrastructure investment to support program objectives under the following activities
  - a) annually monitor the condition and utilization of recreation facilities to inform budget decisions, and
  - **b**) use critical maintenance indicator in Rec-BEST to inform budget decisions.
- A 'Customer Service Performance Measure' initiative will be established to
  - a) benchmark Corps service levels with other agencies and program partners,
  - **b)** develop minimum service levels (required for public health and safety) below which parks will be closed, and
  - **c**) review and if necessary, adjust acceptable levels of service based on the results of items a and b above.

## **Project Spotlight: Budget Impacts to Operations and Partnerships**

**District:** Vicksburg

**Locations**: Lakes Ouachita, Greeson, and DeGray, Arkansas in the region about 50 miles southwest of Little Rock.

Lake Ouachita, Greeson, and DeGray are all located within about an 80-mile radium from each other. Lake Ouachita is described in the above project spotlight. Lake Greeson is on the Little Missouri River and has hunting, fishing, camping,

swimming and boating opportunities. The lake is a wintering site for bald eagles. A nature trail

allows the visitor to reach a cinnabar mine site that has red colorations from mercury ore. There is also a 31-mile-long cycle trail and the Chimney Rock geological formation. DeGray Lake is on the Caddo River in the foothills of the Ouachita Mountains. It is known for its camping facilities and geological formations; however, visitors also enjoy boating, fishing, swimming and scuba diving. A group camp area, which includes a dining hall and eight sleep shelters, is also available. The project offers a visitor center and a State park with a swimming pool, marina, lodge, and golf course.



-Lake DeGray

Like many Corps of Engineers lakes, these lakes are facing the challenges of how to allocate limited program resources. Each project is evaluating options to serve as many customers as possible by focusing resources on the parks and campgrounds that receive the highest visitation. Options include reducing the service levels, limiting summer ranger hires, shorten operating seasons, partial area closures, and as a last resort permanent recreation area closures. The Vicksburg District and representatives of Federal, state, and local interests decided to modify services through a stakeholders' agreement on February 11, 2008. This would reduce costs, and open all Class A and B campgrounds at all three lakes starting on March 1, 2008. The modified services include less frequent trash pickup, janitorial services and grass mowing. Class C and D campgrounds will remain open with no service. Modifications would continue if the summer season can be sustained at these levels.

This operation plan also provides an opportunity for visitors to volunteer at these campgrounds to supplement the modified services. More volunteering and partnership will help keep costs



-Lake Greeson

lower while providing more services.
Leasing campgrounds is also being considered to sustain future campground availability. Despite these funding constraints, the Vicksburg District is committed to providing the best recreation opportunity to the visiting public at all Corps managed areas and will continue to do so in the most efficient ways with the resources available.

## **Enhanced Funding and Performance**

The five-year performance projections reported under this scenario are based on estimates provided by field managers in Rec-BEST during the past four years. Visitor Health and Safety Services are expected to remain at the same level resulting from the flat budget after considering inflation. The downward trend in Facility Condition projected under the Base Plan program will be reversed and facility condition will be slowed down as a result of investments in high performing parks. Visitors served as facilities rated at "acceptable" or better will be virtually the same under Facility Service. Service levels at individual recreation sites will be maintained and/or adjusted to reflect the level of visitation, relative to the cost of such maintenance to improve program efficiency. Program efficiency, as measured by B/C Ratio, will also remain flat or decrease slightly due to the deteriorations of park facilities. A combination of reduced service levels and reduced recreation opportunities implemented through partial and/or complete park closures will continue.

**Table 3: Recreation Enhanced Funding by Account** 

Fiscal Year	2	009	2	010	20	011	2	012	2	013
Investigations	\$	-	\$	-	\$	-	\$	-	\$	-
Construction	\$	-	\$		\$		\$		\$	-
Mississippi River and Tributaries (MRT) Project	\$	-	\$		\$		\$		\$	-
Operation and Maintenance (O&M)	\$	279	\$	286	\$	294	\$	304	\$	311
MRT O&M	\$	17	\$	18	\$	19	\$	19	\$	20
Total	\$	296	\$	304	\$	313	\$	324	\$	331
Note: Includes CAP and Remaining Items										

#### **Initiatives for Enhanced Plan**

- Improve Visitor Health and Safety Services, such as:
  - O Hiring additional temporary park rangers during peak season to conduct water safety programs and increase patrols in beach areas and Corps operated parks.
  - o Modernize electrical service at high performing campgrounds
  - o Improve operational efficiency
  - o Improve access to facilities for disabled visitors
- Surveys to maintain monitoring capability of visitation levels at Corps projects

**Table 4: Recreation Enhanced Funding and Performance** 

Fiscal Year	2009	2010	1011	2012	2013
Appropriation (\$ Millions)	\$ 296	\$ 304	\$ 313	\$ 324	\$ 331
Visitor Health and Safety Services	75%	75%	75%	75%	75%
Park Capacity (millions of days)	60	60	60	60	60
Facility Condition (Based on seven point scale: 1=poor to 7=excellent)	3.6	3.6	3.6	3.6	3.6
Facility Service (% of visitors served at 'acceptable' parks)	47%	47%	47%	46%	46%
National Economics Development (NED)					
Benefits (\$ Millions)	1,162	1,290	1,321	1,361	1,383
Program Efficiency (Benefit/Cost Ratio)	4.26	4.24	4.22	4.20	4.18
Cost Recovery (% of total Recreation Receipts to Budget)	16%	16%	17%	18%	19%
Note: Includes CAP and Remaining Items	·			·	

# Potential Work with "Wedge Money"

The Recreation Program is not included in the assumptions for potential wedge funding in this Five Year Development Plan.

# **Emergency Management**



# **Emergency Management**



## **Key Statistics**

- Completed the repair and restoration of 220 miles of floodwalls and levees by June 1, 2006 caused by Hurricane Katrina
- Trained 900 personnel during FY07 for emergency management work
- Supported 12 FEMA disaster responses in FY07

### **Accomplishments**

- Ensure Corps activities are ready, trained and equipped to respond to a broad range of disasters and emergencies.
- Coordinate, plan, and conduct response exercises with key local, state and federal stakeholders/ partners under the Corps' statutory authorities
- Conducted flood fighting/emergency operations (PL 84-99) in Alaska, Washington D.C., Iowa, Illinois, Indiana, Kansas, Kentucky, Maryland, Missouri, North Dakota, Nebraska, New Jersey, New York, Ohio, Oklahoma, Oregon, Pennsylvania, South Dakota, Texas, and Washington during FY07
- Execution of the May 2007 Supplemental Flood Control and Coastal Emergency (FCCE)
   Appropriation that funded Louisiana and Mississippi FY06 eligible project repairs, Missouri River and Texas flood infrastructure repairs, and provided Drought Assistance.
- Critical Infrastructure Security Protection (CISP) program completed a review of critical infrastructure security risk assessment methodologies through the evaluating: Risk Assessment Methodology for Dams (RAM-D), Critical Asset and Portfolio Risk Analysis (CAPRA), Dams Assessment Matrix for Security and Vulnerability Risk (DAMSVR), Joint Antiterrorism (JAT) Risk Assessment Methodology, and U.S. Bureau of Reclamation Risk Quantification Methodology (RQM).

# **Future Challenges**

- Assessing, managing, and communicating flood risk to the impacted population in understandable terms, and generally improving the nations' resilience to flood events. Additionally, a major challenge remains in how to achieve a sensible balance between our responsibility to inform without increasing terrorist target attractiveness, and our responsibility to protect the public.
- Ongoing levee inventory, inspections, maintenance, and communication are essential. Trees and other woody vegetation can create structural and seepage instabilities, prevent adequate inspection, cause levee failure, and create obstacles to maintenance and flood fighting/flood control activities. Neglectful maintenance can lead to un-certified levees. The public dialogue is essential to communicate risks and consequences.
- Assessment and quantification of consequences associated with dam failures, levee breaches, or navigation lock disruptions needs consistency measures, particularly regarding the estimation of population at risk, loss of life, and quantification of direct and indirect economic impacts.
- Breaking traditional stakeholder and government agencies molds to create better collaboration and integrated processes for emergency planning
- The Corps's future role in drought assistance is uncertain and may require redefinition
- Maintaining a consistent preparedness level, training and credentialing requirements, and increased rehabilitation costs due to an aging flood control infrastructure.
- Develop common guidance for managing sensitive information involving safety/security issues related to critical infrastructure.

# **History of Funding and Performance**

The emergency management program focuses its support on Civil Works Strategic Goal 4. The underlying purpose of this goal is to manage the risks associated with all hazard types and to increase the responsiveness to disasters under this program in support of Federal, state, and local emergency management efforts. Disaster preparedness and response capabilities are not limited to water-related disasters; it also encompasses a broad range of natural disasters and national emergencies which draw on the engineering skills and management capabilities of the organization. Readiness to respond to disasters and emergency incidents is critical to national security.

#### **CISP: Critical Infrastructure Security Protection**

This program is composed of three main parts: Facility Protection, Recurring Physical Security, and Security Upgrades. The Facility Protection section was recently added to the Emergency Management Program. The CISP vision, which is aligned with the National Infrastructure Protection Program (NIPP) and its supporting Dams SSP, is to achieve a more secure and more resilient Corps civil works infrastructure by enhancing its protection in order to prevent, deter, or mitigate the effects of manmade attacks and improve preparedness, response, and rapid recovery in the event of an attack, natural disaster, and other emergencies. This program Civil Works Strategic Goal 4.2: *Improve the safety and security of critical water resources infrastructure*. Below are some statistics on the program.

CISP BSP PROGRESS STATUS (JANUARY 2008)					
NUMBER OF USACE CRITICAL PROJECTS:					
TOTAL NO. OF PROJECTS	263				
TOTAL BSP COMPLETION	241	(92%)			
CONSTRUCTION COMPLETE	245	(95%)			
RAPID RECOVERY PLANS COMPLETE	258	(98%)			
SITE-SPECIFIC SECURITY PLANS COMPLETE	258	(98%)			
CONSTRUCTION REMAINING IN FY08	13	(5%)			

In early FY2007, the CISP implemented implementation a strategy for periodic monitoring and coordination with Divisions to facilitate achieving the Baseline Security Posture (BSP) completion at all remaining USACE critical projects. The CISP BSP strategy, as defined by the USACE Headquarters (HQUSACE) Office of Homeland Security, established the initial steps for physical security upgrades against a criminal/vandal threat for those critical projects initially identified through risk assessment evaluations. This strategy was adopted as an alternative to completing physical security upgrades as recommended by the methodology used during those assessments. According to the BSP strategy, "Total BSP Completion" is achieved by meeting all three separate requirements: construction of physical security upgrades, development of Rapid Recovery Plans (RRPs), and development of Site-Specific Security Plans (SSSPs).

#### **Performance Measures**

The measures below do not include CISP. CISP was a recently added program to Emergency Management, but has been in existence since 2004; however, future document will integrate CISP with the Emergency Management Program.

- ❖ Planning Response Team Status: The Corps has established designated Planning & Response Teams (PRT) that is organized to provide rapid emergency response for a specific mission area. Percent of time that Planning Response Teams for a given mission area are in "Green" readiness state (trained, fully staffed, ready to deploy).
- ❖ Planning Response Team Performance: Percent of time that the performance of the deployed PRT is rated at or above Highly Successful in support of FEMA under the National Response Plan

- ❖ Flood Response Team Status: Percent of time that PL 84-99(Flood) Response Teams are in the "Green" readiness state (trained, fully staffed, ready to deploy) at the beginning of flood/hurricane season.
- ❖ Deployable Tactical Operation Status: Percent of time that the National Deployable Tactical Operations System equipment and teams are in "Green" readiness status (trained, fully staffed, ready to deploy)
- ❖ Inspections Performed: The Corps performs repairs of flood control projects damaged by flood or storm under authority of P.L. 84-99. Percent of annual, scheduled inspections performed for all non-Federal Flood Control Works in RIP, as required by ER 500-1-1. This measure is determined by the percentage of projects damaged during a fiscal year that are repaired prior to the next flood season.
- ❖ Inspected Project Status: Under the Corps Rehabilitation and Inspection Program (RIP) inspected projects are given condition ratings that characterize the project maintenance condition. Cumulative percent of Federal and non-Federal projects in the RIP with satisfactory ratings (minimally acceptable or higher rating).
- ❖ Infrastructure Repairs: Percent of time solutions are developed and implemented (either repaired to pre-flood conditions or possible non-structural alternative) prior to the next flood season. The five year plan only covers preparedness activities therefore accomplishment of this function is completely dependent on supplemental appropriations.
- ❖ Effective execution of the National Training Program (Corps-wide) readiness life cycle. Funding only covers minimum baseline training, new requirements would be impacted.

The Emergency Management program gets most of its funding from the Flood Control and Coastal Emergency (FCCE) account. Unlike other Civil Works accounts for which funding requirements are programmed based on scheduled work, the FCCE account can only project funding requirements for preparedness activities. The frequency and magnitude of emergency events determines the resources needed for actual emergency response in any given fiscal year, as does the obligation rate of FCCE funds. There has not been a regular appropriation for the Flood Control and Coastal Emergencies Account since the 2003 appropriation of \$14.9 million. Performance measures for this program were established in FY04. Table 1 below shows program funding and performance measures for FY04 through FY08.

**Table 1: Funding and Performance History** 

Fiscal Year	2004	2005	2006	2007	2008
Flood Control and Coastal Emergency (FCCE) Regular Appropriation (\$ Millions)	\$ -	\$ -	\$ -	\$ -	\$ -
Flood Control and Coastal Emergency Supplemental Appropriation (\$ Millions)	\$ -	\$348	\$5,408	\$1,561	\$ -
Operation and Maintenance Regular Appropriation (\$ Millions)	\$5.6	\$5	\$5	\$5	\$4.7
Operation and Maintenance Supplemental Appropriation (\$ Millions)	\$ -	\$ -	\$ -	\$ -	\$ -
Total Appropriations (\$ Millions)	\$5.6	\$353	\$5,413	\$1,566	\$ 4.7
Planning Response Team Status (% of time in "Green" readiness state for a given mission)	93%	82%	92%	72%	92%
Planning Response Team Performance (% of time team is rated highly successful)	93%	86%	95%	100%	90%
Flood Response Team Status (% of time in "Green" readiness state for a given mission)	96%	92%	92%	75%	90%
Deployable Tactical Operations Status (% of time in "Green" readiness state)	NA	NA	92%	93%	92%
Inspections Performed (% of scheduled inspections performed)	90%	96%	93%	97%	94%
Inspected Project Status (% of inspections with satisfactory rating)	93%	94%	95%	90%	92%
Infrastructure Repair (% of time solutions are implemented prior to the next flood season)	75%	92%	65%	29%	90%
Effective execution of the National Training Program (Corps-wide) readiness life cycle	92%	94%	74%	83%	90%

#### Project Spotlight: Hurricane Storm Damage Risk Reduction System

**Location:** Greater New Orleans

Metropolitan Area

**District:** New Orleans District

Under the Corps Public Law (PL) 84-99 authority, a task force was established in the aftermath of Hurricane Katrina, September 2005. This was to repair the Greater New



Orleans Federal hurricane and flood protection system from Hurricane Katrina damages to prestorm conditions by 1 June 2006. The repair and restoration of 220 miles of floodwalls and levees has been completed to date. The repaired system included: 2.3 miles of new floodwalls, 22.7 miles of new levees, 195.5 miles of scour repair, 3 interim gated closure structures, and 4 closure structure repairs. Originally, the Corps had identified 169 miles of levees and floodwalls to be repaired and restored. By the time the repairs and new construction was finished, 220 miles of levees and floodwalls had been repaired or restored. In addition, floodwall deficiencies were corrected and un-constructed portions of authorized projects were accelerated. The Corps is currently undertaking work to provide the authorized level of protection for existing project facilities, and then to improve the system to provide 100-year storm protection.

#### **Base Plan and Performance**

The funding level is \$58 million in FY09 and includes Base Plan funding FCCE preparedness (\$37 to \$40 million), NEPP programs (\$6 to \$8 million), and the CISP/Facility Protection Program (\$11 to \$12 million). Consequently, this amount represents baseline readiness, and \$0 for response and recovery costs activities such as emergency operations during flood and hurricane seasons; repairs to flood damage reduction and hurricane shore protection projects damaged by floods or storms; drought assistance; and advance measures activities. Funding for response and recovery activities relies on supplemental appropriations. The Corps has broad authority to transfer funds from other accounts to address emergency response situations, but response and recovery funding needs that exceed this reprogramming authority must rely on supplemental appropriations, which may also be used to repay funds transferred from other activities. Constrained funding is projected to result in a slight downward trend in program performance for actions related to preparedness activities. Other impacted preparedness activities include: additional training and exercises for the planning and response teams and for Public Law (PL) 84-99 training.

**Table 2: Emergency Management Base Plan Funding by Account** 

Fiscal Year	2	009	2	010	2	011	20	012	2	013
Flood Control and Coastal Emergency (FCCE) Regular Appropriation (\$ Millions)		\$ 40		\$ 37	;	\$ 37		37		\$ 37
Operation and Maintenance Regular Appropriation (\$ Millions)		\$ 18		\$ 16	,	\$ 17	,	16		\$ 16
Total (\$ Thousands)	\$	58	\$	53	\$	54	\$	53	\$	53
Note: Supplemental Appropriation is not included as it is funded during certain events.										

#### **Base Plan Highlights**

- Coordination, planning, limited training, and the conduct of response exercises with key local, State and Federal stakeholders/partners under Corps statutory authorities and in support of the Federal Emergency Management Agency (FEMA), Department of Homeland Security
- Maintain and upgrade Deployable Tactical Operating System (DTOS) units, purchase two
  additional Rapid Response Vehicles (RRVs) and purchase equipment over the five-year
  period.
- Purchase and stockpiling of critical supplies and equipment and support facilities for Emergency Operations Centers. Readiness funding would pay personnel costs for Emergency Management personnel assigned to centers, Crisis Management Teams, Crisis Action Teams, Regional Response Coordination Centers, Planning and Response Teams, Special Cadres, and Levee Inspection Teams.
- Continuity of Operations Plan (COOP), Continuity of Government (COG) and critical Catastrophic Response Planning Initiatives.
- CISP/Facility Protection:
  - o Analyze economic impacts of infrastructure interdependencies associated with an inland waterway system interruption
  - o Develop dam security exercise program consistent with the Homeland Security Exercise Evaluation Program (HSEEP)
  - o Implementation of a risk assessment and management framework at administration buildings and laboratories, in coordination with the Corps' Provost Marshal Office
  - Research and development, simulation, modeling, and analysis initiatives supporting critical infrastructure protection, blast mitigation, and resiliency of dams, navigation locks, and levees
  - o Increase in security guard force requirements at projects resulting from changes to the Nation's security levels

**Table 3: Emergency Management Base Funding and Performance Measures** 

Fiscal Year	2009	2010	2011	2012	2013	
Total Appropriations (\$ Millions)	\$ 58	\$ 53	\$ 54	\$ 53	\$ 53	
Planning Response Team Status (% of time in "Green" readiness state for a given mission)	87% 84% 81%		78%	78%		
Planning Response Team Performance (% of time team is rated highly successful)	87% 84% 81%		78%	78%		
Flood Response Team Status (% of time in "Green" readiness state for a given mission)	87%	84%	81%	78%	78%	
Deployable Tactical Operations Status (% of time in "Green" readiness state)	89%	86%	83%	80%	80%	
Inspections Performed (% of scheduled inspections performed)	91%	91% 88% 85%		82%	82%	
Inspected Project Status (% of inspections with satisfactory rating)	89%	86%	83%	80%	80%	
Infrastructure Repair (% of time solutions are implemented prior to the next flood season)	57%	54%	52%	50%	50%	
Effective execution of the National Training Program (Corps-wide) readiness life cycle	67%	64%	62%	60%	60%	

Note: The five year plan only covers preparedness activities therefore the above measures reflect accomplishments from supplemental appropriations. Regular appropriations only covers minimum baseline training; therefore, any, new requirements would be impacted. Performance Measures only apply to FCCE and NEPP. Other performance measures are being developed for the funds allocated to CISP.

#### **Enhanced Funding and Performance**

Similar to the Base Plan scenario, the enhanced budget is \$58 to \$66 million and includes funding the initial FCCE preparedness program, NEPP program, and CISP/Facility Protection Program. Consequently, this amount represents baseline preparedness or readiness and \$0 for response and recovery costs. Response and recovery includes emergency operations during flood and hurricane seasons; repairs to flood damage reduction and hurricane shore protection projects damaged by floods or storms; drought assistance; and advance measures activities.

From FY09 through FY13, the small increase would provide for modest improvements to the preparedness program, such as additional training and exercises for the planning and response teams, PL 84-99 training, and updating the Corps' ENGLink system. Funding for response and recovery activities relies on supplemental appropriation which can delay timely response and recovery activities.

**Table 4: Emergency Management Enhanced Funding by Accounts** 

Fiscal Year	2	009	20	010	20	11	20	12	20	013
Flood Control and Coastal Emergency (FCCE) Regular Appropriation (\$ Millions)		\$ 40	9	\$ 41	\$	42	\$	43	9	\$ 44
Operation and Maintenance Regular Appropriation (\$ Millions)		\$ 18	9	\$ 17	\$	18	\$	19	9	\$ 20
Total (\$ Thousands)	\$	58	\$	58	\$	60	\$	62	<b>\$</b>	66
Note: Supplemental Appropriation is not inclu	Note: Supplemental Appropriation is not included as it is funded during certain events.									

#### **Enhanced Plan Highlights**

- \$40 to \$44 million for FCCE, modest increases in ongoing activities, increased preparedness
- \$6 to \$8 million would be for NEPP
- \$12 to \$18 million for CISP/Facility Protection Activities

**Table 5: Emergency Management Enhanced Funding and Performance** 

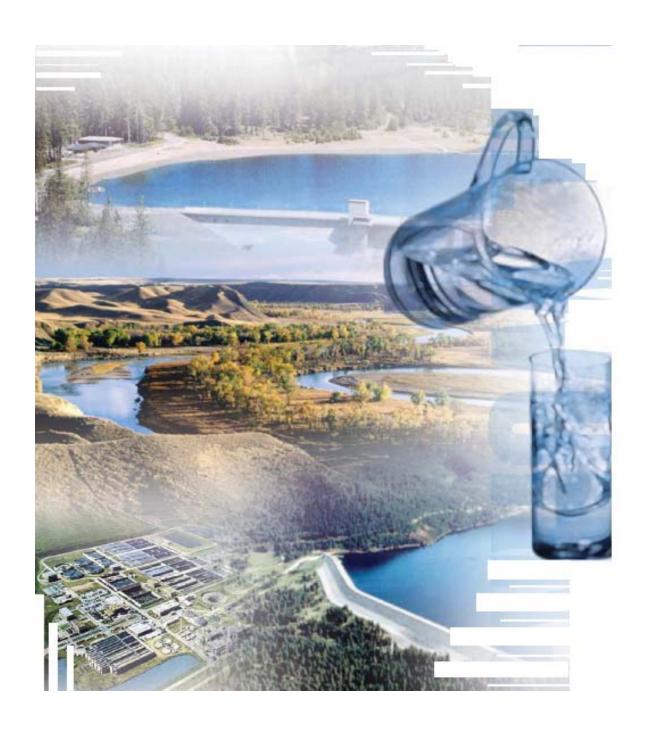
Fiscal Year	2009	2010	2011	2012	2013
Total Appropriations (\$ Millions)	\$ 58	\$ 53	\$ 54	\$ 53	\$ 53
Planning Response Team Status (% of time in "Green" readiness state for a given mission)	90% 91% 91% 92%		92%	92%	
Planning Response Team Performance (% of time team is rated highly successful)	91% 91% 92%		92%	92%	92%
Flood Response Team Status (% of time in "Green" readiness state for a given mission)	90% 91%		91%	91% 92%	
Deployable Tactical Operations Status (% of time in "Green" readiness state)	93%	93%	94%	95%	95%
Inspections Performed (% of scheduled inspections performed)	94%	95%	95%	96%	96%
Inspected Project Status (% of inspections with satisfactory rating)	92%	93%	93%	94%	94%
Infrastructure Repair (% of time solutions are implemented prior to the next flood season)	57%	54%	52%	50%	50%
Effective execution of the National Training Program (Corps-wide) readiness life cycle	71%	72%	73%	74%	74%

Note: The five year plan only covers preparedness activities therefore accomplishment of this function is completely dependent on supplemental appropriations. Funding only covers minimum baseline training, new requirements would be impacted. Performance Measures only apply to FCCE and NEPP as other performance measures are being developed for the funds allocated to CISP.

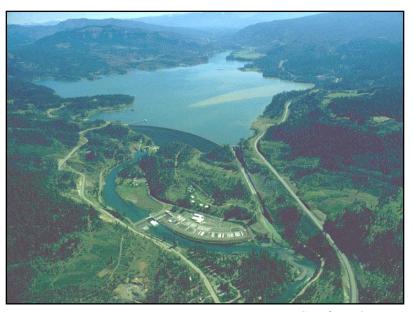
## Potential Work with "Wedge Money"

The Emergency Management Program is not included in the assumptions for potential wedge funding in this Five Year Development Plan.

# **Water Supply**



# Water Supply



-Lost Creek in Oregon

## **Key Statistics**

- 9.8 million acre-feet of storage space
- Water storage located in 136 multi-purpose reservoirs in 25 states
- ❖ 308 Water Supply Agreements
- \$1.5 billion in project costs being returned to the U.S. Treasury

#### Accomplishments

- Provide storage space sufficient to meet about 18% of the nations personal household needs
- About 96% of total storage allocated to water supply is under repayment agreements.
- Return revenues to the U.S. Treasury through repayment agreements for project construction costs as well as annual operation and maintenance expense.

### **Future Challenges**

- Meeting the increasing competition for available water supplies as a result of rapid population and economic growth, including through reallocation of existing storage.
- Meeting this growing demand will require more efficient use of existing water supplies.
- Primacy over water supply development and management has been and will continue to reside with states and localities.
- Continue to play a significant role in helping non-Federal entities to secure and manage water supplies, including assisting states and other non-Federal interests in the preparation of comprehensive water resources development and drought management plans.
- Establishing and updating water supply contracts with local entities withdrawing water from Corps reservoirs.

#### **History of Funding and Performance**

In partnership with non-Federal water management plans and consistent with law and policy, manage Corps reservoirs to provide water supply storage in a cost-efficient and environmentally responsible manner. Performance is measured by (1) acre-feet of storage under contract versus acre-feet available and (2) percent of costs covered by revenues returned to the U.S. Treasury.

Water supply has been reported in appropriations accounts going back to the requirements of Government Performance and Results Acts (GPRA) since the mid-90s. However, the FY05 budget was the first year that the Corps restructured the budget process to focus on the individual business program, including Water Supply, as the initial building blocks for development of the budget. There is, therefore, only a four-year funding history for water supply.

**Table 1: Water Supply Funding and Performance History** 

Fiscal Year	1996	2004	2005	2006	2007	2008					
Operation and Maintenance (Rounded in \$ Millions)			\$ 1	\$ 1	\$ 3	\$ 4					
Billings, Collections, & Studies			\$ 1	\$ 1	\$ 3	\$ 2.95					
ESA BiOps Program			\$ -	\$ -	\$ -	\$ 0.55					
Joint Costs			\$ -	\$ -	\$ -	\$ -					
Portfolio			\$ -	\$ -	\$ -	\$ 0.30					
Investigations (\$ Millions)			\$ 1	\$ 1	\$ -	\$ -					
Appropriation (\$ Millions)			\$ 2	\$ 2	\$ 3	\$ 4					
Acre-Feet und	der Contrac	t versus A	cre-Feet A	vailable							
Acre Feet Available (\$ Millions)	\$ 9.524	\$ 9.856	\$ 9.761	Note	Note	Note					
Acre Feet Under Contract (\$ Millions)	\$ 8.764	\$ 9.108	\$ 9.356	Note	Note	Note					
Percent of Available Storage under Contract	92.0%	92.4%	95.9%	95.9%	96.0%	96.1%					
Costs to be	Recovere	d versus C	osts Reco	vered							
Costs to be recovered (\$ Millions)	\$1,333.5	\$1,477.2	\$1,459.8	Note	Note	Note					
Costs recovered (\$ Millions)	\$ 700.3	\$1,064.0	\$1,096.1	Note	Note	Note					
Percent Recovered	52.5%	72.0%	75.1%	75.2%	75.4%	75.6%					

Note: Performance measures are targets for 2006-2008. The performance of the water supply business program has been obtained on a case-by-case basis over the years in response to specific data requests. Prior to being assessed by the Program Assessment Rating Tool, data was not collected on a regular basis. Thus, only limited performance data is available for 1996, 2004 and 2005. Beginning in 2006 an action to develop a water supply module for the Operation and Maintenance Business Information Link was undertaken. This module will permit the required data to be collected on an annual basis through an automated system. The module is still under development.

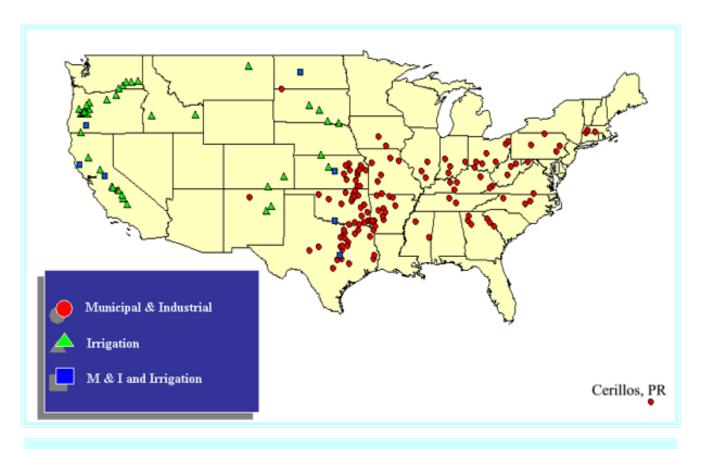


Figure 1: Water Storage for Municipal and Industrial (M&I) Water Supply

This picture displays the location of the 136 reservoir projects that contain storage space for municipal and industrial water supply and the 48 projects that contain irrigation storage. Irrigation our of Corps reservoir projects in the western United States is administered by the Bureau of Reclamation.

### **Project Spotlight: A "Typical Project"**

Out of the Corps' 136 reservoir projects, which include Municipal & Industrial (M&I) Water Supply, there is not a "typical" project, but rather "examples" of projects. Such examples include projects where water supply was originally authorized and where storage has been reallocated from a previously authorized purpose to water supply. There are projects where we have one water supply agreement for the total storage space and there is one project where we have signed 34 agreements. We have signed M&I water supply agreements with states, Federal/Interstate commissions, river basin commissions, counties, cities, industries, private interests and individuals. Our agreements range in size from over 1.4 million acre-feet down to 1 acre-foot.

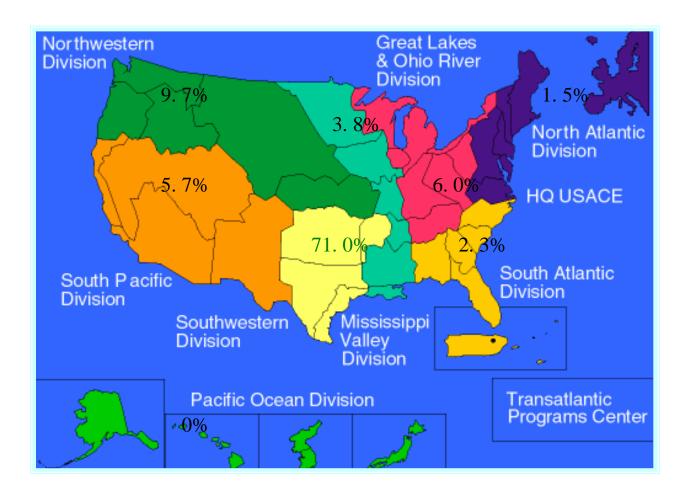


Figure 2: M&I Storage Space, Major Subordinate Command (MSC) Distribution by Percent

This picture shows by percent the distribution of the storage space in Corps reservoir projects set aside for municipal and industrial water supply. As shown, the vast majority, about 71 percent is located in our southwestern division covering the states of Texas, Oklahoma and parts of Kansas, Missouri and Arkansas.

#### **Base Funding and Performance**

The Base Plan program for O&M includes funding sufficient to meet minimum legal responsibilities for the operation and maintenance of the project facilities needed specifically for water supply as well as the development and renegotiation of water supply agreements and the billing and collection of payments and repayments. The program for O&M also includes the costs of two ongoing studies (the Alabama-Coosa-Tallapoosa / Apalachicola-Chattahoochee-Flint study and the Texas Water Allocation Assessment). The program also includes the joint costs allocated to water supply in the O&M budget as well as the funds required for the water

supply portion of the ESA BiOps program and the funding for the National Water Supply Portfolio Assessment.

Water supply performance targets, percent of acre-feet under contract versus acre-feet available and percent of costs recovered versus costs to be recovered are impacted primarily by the negotiation, collections and billings portion of the O&M budget. This value is the same for the budget and enacted plans. While studies, surveys and investigations for water have the potential to increase the absolute number of acre-feet available for contracting and the potential revenues to be returned to the Treasury, this action can only take place through the normal planning process. This process consists of two steps: (1) a preliminary assessment funded through the O&M budget at Federal expense and (2) a feasibility study funded through the Investigation budget with costs shared 50/50 between the Federal Government and the local sponsor. If favorable, this investigation results in a water supply agreement between the parties with the local sponsor responsible for the assigned cost of storage and the annual OMRR&R expenses. The Federal billing and collection of these expenses are assigned to the O&M budget.

The performance targets for the two water supply performance measures are shown in Table 2 below. These measures were developed in the 2006 PART.

**Table 2: Water Supply Base Funding by Account** (\$ Millions)

Fiscal Year	2009	2010	2011	2012	2013
Investigations	\$ -	\$ -	\$ -	\$ -	\$ -
Construction	\$ -	\$ -	\$ -	\$ -	\$ -
Mississippi River and Tributaries (MRT) Project	\$ -	\$ -	\$ -	\$ -	\$ -
Operation and Maintenance (O&M)	\$ 5.7	\$ 5.4	\$ 5.7	\$ 5.4	\$ 5.4
MRT O&M	\$ -	\$ -	\$ -	\$ -	\$ -
Total (Round in \$ Millions)	\$ 6	\$ 5	\$ 6	\$ 5	\$ 5

#### **Initiatives for Base Plan**

The Portfolio Assessment for Water Supply is a new initiative included under Remaining Items in the FY08 Budget. This initiative will develop a set of criteria to guide project or basin specific water reallocation studies. A portfolio of these studies will be developed with a view of showing the best studies on a national basis to justify further review. The assessment program will also enable the Corps to determine the feasibility of alternate funding arrangements that rely on program beneficiaries to provide the funding for any follow-up studies.

**Table 3: Water Supply Base Funding and Performance** 

Fiscal Year	2009	2010	2011	2012	2013
Appropriation (Rounded in \$ Millions)	\$ 6	\$ 5	\$ 6	\$ 5	\$ 5
Acre-Feet under Contract versus Acre-Feet Available (% of Available Storage under Contract)	96.2%	96.3%	96.4%	96.5%	96.6%
Costs to be Recovered versus Costs Recovered (% Recovered)	75.8%	76.0%	76.2%	76.4%	76.6%
, ,					

#### **Enhanced Funding and Performance**

If the program were to receive funding as projected in the Enhanced Plan scenario for FY09 thru FY13, additional well-justified O&M studies and investigations for water supply could be undertaken. In out years it is anticipated additional studies could be initiated as followon to the nationwide portfolio assessment.

**Table 4: Enhanced Funding and Performance** (\$ Millions)

Fiscal Year	2009	2010	2011	2012	2013
Investigations	\$ 0.9	\$ 1.4	\$ 1.4	\$ 1.5	\$ 1.5
Construction	\$ -	\$ -	\$ -	\$ -	\$ -
Mississippi River and Tributaries (MRT) Project	\$ -	\$ -	\$ -	\$ -	\$ -
Operation and Maintenance (O&M)	\$ 6	\$ 6.5	\$ 6.5	\$ 6.5	\$ 6.5
MRT O&M	\$ -	\$ -	\$ -	\$ -	\$ -
Total (Round in \$ Millions)	\$ 7	\$ 8	\$ 8	\$ 8	\$ 8

#### **Initiatives for Enhanced Plan**

If "wedge" money for new starts was received for this business program, additional projects could be considered. While specific funding decisions would be made at that time, several examples of projects that could be considered are:

- Investigation of Chatfield Lake, Colorado for reallocation opportunities
- Funding of the Middle Brazos, Texas Water Supply Initiative
- Big Sandy River, Ohio
- Willamette, Oregon
- Delaware, Ohio

For water supply the performance measures are based on storage space placed under contract and revenues collected. The water supply budget, regardless of the funding level always includes the minimum required to bill and collect revenues. While the absolute numbers of storage placed under contract and revenues to be collected my increase, the percent is what is measured. Future initiatives will impact targets much later on and the base/enhanced have the same existing projects.

**Table 5: Enhanced Funding and Performance** 

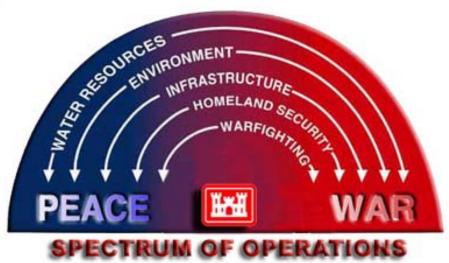
Fiscal Year	2009	2010	2011	2012	2013
Appropriation (Rounded in \$ Millions)	\$ 7	\$ 8	\$ 8	\$ 8	\$ 8
Acre-Feet under Contract versus Acre- Feet Available (% of Available Storage under Contract )	96.2%	96.3%	96.4%	96.5%	96.6%
Costs to be Recovered versus Costs Recovered (% Recovered)	75.8%	76.0%	76.2%	76.4%	76.6%

#### Potential Work with "Wedge Money"

The Water Supply Program is not included in the assumptions for potential wedge funding in this Five Year Development Plan.

# **Executive Direction and Management**





# **Executive Direction and Management**



#### **Key Statistics**

- Provides for executive direction and management (ED&M) of the Civil Works Program, under the Director of Civil Works.
- ❖ ED&M is accomplished through 5 functions: command and control, policy and guidance, program development, national coordination, and quality assurance
- Authorized strength under USACE 2012 is 76 uniformed Army personnel and 997 civilian full-time equivalents (FTEs).

#### **Accomplishments**

- Command and Control, Leading development, defense, and execution of \$5.6 billion Civil Works Program for FY08;
- Policy and Guidance
  - Produced documents detailing Civil Works' management activities, FY09 Program Development Engineering Circular (EC), FY08 Program Execution EC, and 5 Engineering Manuals (EMs)
  - o Developed additional guidance for the "Actions for Change" initiative

#### Program Management

- o Developed FY09 President's Program of \$4.7 billion, as well as additional FY09 emergency request of \$5.8 billion for greater New Orleans hurricane recovery activities.
- Managing the FY08 Civil Works Program through a monthly Project Review Board (PRB), quarterly Directorate Management Reviews (DMRs), and Command Management Reviews (CMRs)
- o Lean Six Sigma: Business transformation and process reevaluation

#### National Coordination.

- Track and maintain database of more than 80 recurring national events including the Native American (Tribal Nation) Program; Inland Waterways Users Board; National Waterways Conference Budget/Legislative Summit; California Marine Affairs and Navigation Conference
- Quality Assurance: Asset Management (AM) Program prepared and submitted USACE AM
  Quality Management Plan scope of work (SOW).

#### **Future Challenges**

- Complete OMB PART Exercise to evaluate and establish future performance measures that demonstrate program values to the nation through planned efficiency, outputs and outcome performances, rather than the current justification based on asserted resource needs
- Increase Staff and Strengthen Expertise. Headquarters staffing is constrained. Staff ability to review decision documents in a timely manner has decreased severely; there are not enough resources to evaluate and review them efficiently. Decision document delays have led to project delays, resulting in an increasing number of unsatisfied project sponsors. Additionally, the Corps is taking enormous risk in not maintaining design and construction standards and criteria (S/C) documents. The average (S/C) document is 12 years old, meaning that we are not using the most modern methods.
- Improve Quality Assurance (QA) Assessments. Division offices perform one QA assessment per quarter and they have become more "virtual" and less "boots on the ground", as operational funds have diminished
- Strengthen Community of Practice (COP). The purpose is to develop a capable workforce for today and for the future. The workforce will be comprised of well motivated, functional Program Development Teams. The goal is to share workloads regionally ensuring expertise at all levels. Insufficient ED&M funding has caused a lack of division manpower and funding for travel, making it impossible to efficiently and adequately develop and staff necessary CoPs.
- Implement the Actions for Change Initiative in a timely manner

#### **History of Funding and Performance**

The overall Strategic Plan is considered in all functions. The Program Account funds activities essential to supporting the Civil Works Program mission, including several Corps of Engineers Strategic Plan Goals:

<u>Strategic Goal 1</u>: This is supported through DoD strategies and guidance for security cooperation by assisting in the development of civil/military emergency management competence, disaster preparedness, and consequence management.

<u>Strategic Goal 2</u>: This is supported through implementing the President's Management Agenda for managing and operating assets. External contract support will assist in the execution of a national risk management framework, program management support, data integration support and other logistical services.

Strategic Goal 5: The Corps will ensure its ability to accomplish civil works missions, and to provide expert scientific and engineering technical assistance to the Army, Department of Defense, other Federal agencies, and internationally. A solid technical foundation in core competencies while promoting organizational effectiveness, and fiduciary integrity will be maintained. The Program Account improved technical guidance, criteria documents, design, and construction standards. Additionally, the E-Government initiative supports Budget Formulation

and Execution; the Corps' share of the Federal Line of Business Initiatives and Recreation-One Stop.

Funding for the Expenses Program has not kept pace with inflation rates or program growth. Since 1995, Civil Works business programs grew, but the Expenses budget authority has remained flat in nominal terms. Over this time frame, the Corps of Engineers has reduced the number of Divisions from 11 to 8 and implemented Administration management initiatives such as the on the President's Management Agenda and PART. FY07 funding supported approximately 60 military personnel and 876 Full Time Equivalents (FTE).

**Table 1: ED&M Funding and Performance History** 

Fiscal Year	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
<b>Appropriation</b> (\$ Millions)	\$148	\$150	\$152	\$152	\$154	\$ 159	\$ 166	\$ 154	\$ 167	\$ 171

#### **Base Funding and Performance**

The Five-Year base program provides funding levels which will continue to force the Executive Direction and Management (ED&M) program to undertake its activities with constrained resources, even though the budget has increased in nominal terms in recent years. At this funding level, the ED&M staffing could decline from 850 full-time FTEs in FY09 to approximately 799 FTE over five years. This increases individual workload particularly to our program and project management, national and regional coordination, and quality assurance functions.

Work plans in FY09 and out-years will be developed in accordance with the following priorities:

- Improving of program justification statements and program documentation
- Improving budgeting and financial performance
- Increasing training to retain, maintain and improve technical competence
- Becoming a more efficient and effective organization through technology (E-government)
- Strengthening dam safety and levee safety and risk management
- Strengthening business program management for the navigation, environmental restoration and hydropower programs

Table 2: ED&M Five-Year Base Funding Plan

Fiscal Year	2009	2010	2011	2012	2013
Appropriation (\$ Millions)	\$ 177	\$ 165	\$ 166	\$ 165	\$ 165

#### **Base Plan Initiatives**

- review positions to determine need and priority,
- consider need for new labor capability, and to
- determine which existing labor capability can be "traded out" for needed additional and/or new labor capability

#### **Enhanced Funding and Performance**

The added funding would be used to improve the performance of management functions and to increase the level of effort on management initiatives. The enhanced level of funding at \$191 million provides investment opportunities that will allow the Corps to better align with the USACE 2012 concept, which creates more integrated teams. We propose to bring aboard 55 positions spread across most ED&M organizations. On average, each position costs \$144,000. The five-year enhanced funding for this program would enable the program to improve the performance of management functions and to increase the level of effort on management initiatives.

Table 3: ED&M Five-Year Enhanced Funding Plan

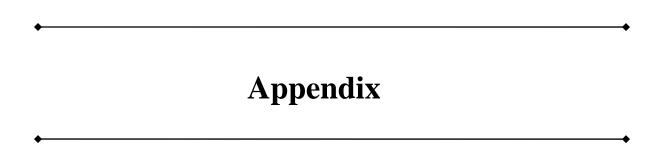
Fiscal Year	2009	2010	2011	2012	2013
Appropriation (\$ Millions)	\$ 191	\$ 195	\$ 199	\$ 203	\$ 207

#### **Enhanced Plan Initiatives**

- Filling several key positions with responsibilities extending across most of the ED&M organizations.
- Reducing the backlog and processing time for water project review of Project Cooperation Agreements
- Improving planning capabilities through the development and update of planning guidance and training.
- Expanding stakeholder coordination at the regional and national levels.
- Increasing training to retain, maintain and improve technical competence.
- Managing business process transformation.
- Improvement of the ED&M component of the "Actions for Change" initiated by the Chief of Engineers to implement the lessons learned from the 2005 hurricanes.

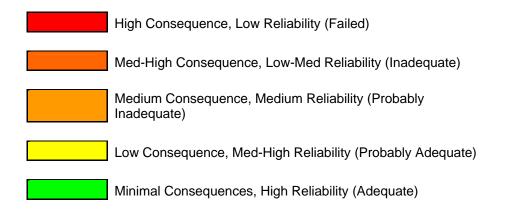
## Potential Work with "Wedge Money"

This program is not included in the assumptions for potential wedge funding in this Five Year Development Plan.



Appendix A: FY10 Relative Risk Ranking Matrix

	Relative Risk Ranking Matrix							
Condition		Condition Classification						
		F	F D C B		Α			
Cons	sequence	(Failed)	(Inadequate)	(Probably Inadequate)	(Probably Adequate)	(Adequate)		
	ı	1	2	4	7	18		
Jory	II	3	5	8	11	20		
Consequence Category	III	6	9	12	14	22		
	IV	10	13	15	16	24		
	v	17	19	21	23	25		



	Performance Reliability Assessment Standards
Condition	
Classification	Definitions
A Adequate	There is a high level of confidence that the feature will perform well under the designed operating conditions. This confidence level is supported by data, studies or observed project characteristics which are judged to meet current engineering or industry standards.  There is a limited probability that the verified degraded conditions will cause an inefficient operation, or degradation or lose of service.
B Probably Adequate	There is a <b>low level of confidence that the feature will perform well under designed operating conditions</b> , and may not specifically meet engineering or industry standards. The feature may require additional investigation or studies to confirm adequacy.  There is a <b>low probability</b> that the verified degraded <b>conditions will result in inefficient operation</b> , or degradation or loss of service.
C Probably Inadequate	There is a low level of confidence that the feature will not perform well under designed operating conditions, and may not specifically meet engineering or industry standards. The feature may require additional investigation or studies to confirm adequacy. The feature does not meet current engineering or industry standards.  There is a moderate probability that the verified degraded conditions will result in inefficient operation, or degradation or loss of service
D Inadequate	There is a high level of confidence that the feature will not perform well under designed operating conditions. Physical signs of distress and deterioration are present. Analysis indicates that factors of safety are near limit state. The feature deficiencies are serious enough that the feature no longer performs at a satisfactory level of performance or service.  There is a high probability that the verified degraded conditions will result in inefficient operation, or degradation or loss of service.
F Failed	The feature has <b>FAILED</b> Historically the feature <b>regularly experiences</b> scheduled or unscheduled <b>closures or loss of service</b> for repairs.

Category	CONSEQUENCES
	PAR → >100,000, TPAR → >1,000
	National to Multi-Region/Basin disruption of essential facilities and access.
	Economic Impact-Massive Losses (>\$1B).
	Impact-National Massive environmental mitigation cost.
	PAR → 50,000 to 100,000, TPAR → 500 to 1,000
	Multi-Regional/Basin disruption of essential facilities and access.
	Economic Impact-Multi-regional losses. (\$500M to \$1B) major public and private facilities.
п	Very large environmental mitigation cost.
	PAR → 25,000 to 50,000, TPAR → 250 to 500
	Regional disruption of essential facilities and services
	Economic Impact-Regional losses, (\$250M to \$500M).
III	Large environmental mitigation cost.
	PAR → 10,000 to 25,000, TPAR → 125 to 250
	Local to Regional disruption of essential facilities and access.
	Economic Impact-local to regional (>\$125M to \$250M).  Medium Environmental mitigation cost.
IV	Medium Environmental mitigation cost.
	DAD 3. 40.000 TDAD 3. 405
	PAR → <10,000, TPAR → <125
	Local disruption of essential facilities and access.  Economic Impact-local to regional (<\$125M).
	Minimal to no Environmental mitigation cost.
V	a. to the annual magazion ood.

# **Appendix Tables**

The tables in this section are as follows:

- ❖ I-1 Five-year funding schedules under the Base Plan Scenario for the studies, preconstruction engineering and designs (PEDs), and Remaining Items funded from the Investigations account in the FY09 budget. No new studies or new PED phases are displayed after FY09. All work on the Louisiana Coastal Area Program is assumed to migrate to the Construction account starting in FY10. The amounts displayed after FY10 for the studies and PEDs represent "capability" level funding, that is, the maximum that the Corps could efficiently use for the studies and PEDs. Remaining Items are allocated among business programs. Remaining funding is displayed in a consolidated line item for "Additional Study and PED Activities (including Remaining Items)" that initiates in FY10, when such funding would first become available. This line item represents the additional funding available in each fiscal year after FY09 for new studies, new PED phases, and increased effort on Remaining Items.
- ❖ I-2 Five-year funding schedules under the Enhanced Plan Scenario for the studies, PEDs, and Remaining Items funded from the Investigations account in the FY09 budget. The schedules differ from those in the Base Plan in that the individual studies and PEDs are funded at the capability level in FY09 as well as the out-years, and the line item for "Additional Study and PED Activities (including Remaining Items)" begins in FY09 and is higher in the out-years due to the overall funding level.
- ❖ I-3 A list of the studies and a list of the PEDs that were not included in the FY09 budget but that could have been had sufficient funding been available. These represent the studies and PEDs that could be funded in the out-years in the line item for "Additional Study and PED Activities (including Remaining Items)." The studies and PEDs, respectively, are sorted into priority groups based on performance.
- ❖ C-1 Five-year funding schedules under the Base Plan Scenario for the projects, Continuing Authority Programs (CAPs), and Remaining Items funded from the Construction account in the FY09 budget. FY09 budget policy, including the construction funding guidelines, is assumed for all fiscal years. No new projects or resumptions are displayed. The amounts displayed after FY09 represent capability level funding for most projects, but funding levels for those projects with the greatest year-over-year increases in capabilities are constrained so that the total funding fits within the amount assumed to be available under this scenario. In addition, for those projects that have benefit-cost ratios of below 3.0 to 1 and do not significantly reduce inundation risks to life, only the ongoing continuing contracts are funded, in accordance with FY09 budget policy. The CAPs and the Remaining Items are allocated among business program. Remaining funding is displayed in a consolidated line item for "Additional Projects and Programs (including CAPs and Remaining Items)." This line item represents the additional funding available in each fiscal year after FY09 for the initiation, continuation, or resumption of additional projects and programs, for the Louisiana Coastal Area program, and for increased effort on CAPs and Remaining Items.

- ❖ C-2 Five-year funding schedules under the Enhanced Plan Scenario for the projects, CAPs, and Remaining Items funded from the Construction account in the FY09 budget. The schedules differ from those in the Base Plan in that the funding for those projects with the greatest year-over-year increases in capabilities is not constrained after FY10. Also, the line item for "Additional Projects and Programs (including CAPs and Remaining Items)" is higher after FY10 due to the higher overall funding level.
- ❖ C-3 A list of the construction projects and programs that were not included in the FY09 budget but that could have been had sufficient funding been available. These represent the projects and programs that could be funded in the out-years in the line item for "Additional Projects and Programs (including CAPs and Remaining Items)." The projects and programs are sorted into priority groups based on performance and the groups are listed in priority order.
- ❖ C-4 A list of all active or un-started CAP projects
- ❖ M-1 Five-year funding schedules under the Base Plan Scenario for the investigations and construction projects funded from the Mississippi River and Tributaries (MR&T) account in the FY09 budget. This table follows the procedures outlined above for Tables I-1 and C-1. However, there is no line item for additional construction projects because the projects in the FY09 budget could use all of the construction funds available for the account.
- ❖ M-2 Five-year funding schedules under the Enhanced Plan Scenario for the investigations and construction projects funded from the MR&T account in the FY09 budget. This table follows the procedures outlined above for Tables I-2 and C-2. However, there is no line item for additional construction projects because the projects in the FY09 budget could use all of the construction funds available for the account.

Table I-1: Investigation Account, Base Plan Scenario (\$ Thousands)

DIV	ST	Project Name	2009	2010	2011	2012	2013
POD	AK	ANCHORAGE HARBOR DEEPENING, AK	100	100	100	100	100
POD	AK	BARROW COASTAL STORM DAMAGE REDUCTION, AK	400	400	0	0	0
POD	AK	YAKUTAT HARBOR, AK	700	700	700	700	290
SPD	AZ	PIMA COUNTY, AZ	275	0	0	0	0
SPD	AZ	VA SHLY-AY AKIMEL SALT RIVER RESTORATION, AZ	658	658	363	0	0
SPD	CA	CALIFORNIA COASTAL SEDIMENT MASTER PLAN, CA	900	900	900	900	900
SPD	CA	COYOTE & BERRYESSA CREEKS, CA	950	950	950	950	320
SPD	CA	SAC-SAN JOAQUIN DELTA ISLANDS AND LEVEES, CA	469	469	469	469	469
SPD	CA	SOLANA BEACH, CA	171	0	0	0	0
SPD	CA	SUTTER COUNTY, CA	339	339	339	339	339
SPD	CA	UPPER PENITENCIA CREEK, CA	191	71	0	0	0
SAD	FL	MILE POINT, FL	50	0	0	0	0
SAD	FL	PORT EVERGLADES HARBOR, FL	550	336	0	0	0
SAD	GA	AUGUSTA, GA	278	278	278	95	0
SAD	GA	LONG ISLAND, MARSH AND JOHNS CREEKS, GA	150	42	0	0	0
SAD	GA	SAVANNAH HARBOR EXPANSION, GA	700	0	0	0	0
SAD	GA	TYBEE ISLAND, GA	250	206	0	0	0
POD	GM	HAGATNA RIVER FLOOD CONTROL, GUAM	350	265	0	0	0
POD	HI	ALA WAI CANAL, OAHU, HI	300	0	0	0	0
POD	HI	MAALAEA HARBOR, MAUI, HI	200	2	0	0	0
LRD	IL	DES PLAINES RIVER, IL (PHASE II)	500	500	188	0	0
MVD	IL	ILLINOIS RIVER BASIN RESTORATION , IL	400	400	400	400	400
LRD	IN	INDIANA HARBOR, IN	300	0	0	0	0
NWD	KS	TOPEKA, KS	100	100	100	100	100
MVD	LA	BAYOU SORREL LOCK, LA	1,599	1,239	0	0	0
MVD	LA	CALCASIEU LOCK, LA	53	53	53	53	53
MVD	LA	CALCASIEU RIVER BASIN, LA	67	0	0	0	0
MVD	LA	LOUISIANA COASTAL AREA ECOSYSTEM RESTORATION (Science Program), LA	10,000	10,000	10,000	10,000	10,000
MVD	LA	LOUISIANA COASTAL AREA ECOSYSTEM RESTORATION, LA	10,000	0	0	0	0
MVD	LA	ST CHARLES PARISH URBAN FLOOD CONTROL, LA	500	368	0	0	0
NAD	MA	BOSTON HARBOR (45-FOOT CHANNEL), MA	2,300	2,300	1,400	0	0
NAD	MA	PILGRIM LAKE, TRURO & PROVINCETOWN, MA	96	0	0	0	0
LRD	MI	GREAT LAKES NAV SYST STUDY, MI, IL, IN, MN, NY, OH, PA & WI	200	0	0	0	0
MVD	MN	WILD RICE RIVER, RED RIVER OF THE NORTH BASIN, MN	271	271	16	0	0
NWD	MO	KANSAS CITYS, MO & KS	262	53	0	0	0
NWD	MO	MO RIVER DEGRADATION, MO	88	88	88	88	88
NWD	MO	SWOPE PARK INDUSTRIAL AREA, KANSAS CITY, MO	138	0	0	0	0
NWD	MT	YELLOWSTONE RIVER CORRIDOR, MT		200	200	200	200
SAD	NC	CURRITUCK SOUND, NC	150	150	150	150	102
SAD	NC	NEUSE RIVER BASIN, NC	200	200	200	200	200
NAD	NH	MERRIMACK RIVER WATERSHED STUDY, NH & MA	200	200	200	200	200
NAD	NJ	DELAWARE RIVER COMPREHENSIVE, NJ	290	290	290	290	109

Table I-1: Investigation Account, Base Plan Scenario Continued (\$ Thousands)

		Total - Investigations Appropriations	91,000	84,000	85,000	85,000	84,000
		Additional Studies and PEDS (including Remaining Items)	0	8,098	14,827	17,045	17,783
	Remaining Items				49,916	49,916	49,916
	Total - Investigations (Listed under States)				20,257	18,039	16,301
NWD	WA	PUGET SOUND NEARSHORE MARINE HABITAT RESTORATION, WA	400	400	400	400	400
NWD	WA	LOWER COLUMBIA RIVER ECOSYSTEM RESTORATION, OR & WA	100	100	100	100	100
NAD	VA	LYNNHAVEN INLET, VA	175	32	0	0	0
SAD	VA	JOHN H KERR DAM AND RESERVOIR, VA & NC (SECTION 216)	300	300	68	0	0
NAD	VA	ELIZABETH RIVER, HAMPTON ROADS, VA	97	0	0	0	0
SWD	TX	UPPER TRINITY RIVER BASIN, TX	207	207	207	207	207
SWD	TX	RIO GRANDE BASIN, TX	100	100	100	100	4
SWD	TX	NUECES RIVER AND TRIBUTARIES, TX	250	250	250	250	250
SWD	TX	LOWER COLORADO RIVER BASIN, TX	425	425	425	425	425
SWD	TX	GUADALUPE AND SAN ANTONIO RIVER BASINS, TX	223	223	223	223	223
SWD	TX	GIWW, PORT O'CONNOR TO CORPUS CHRISTI BAY, TX	350	350	0	0	0
SWD	TX	GIWW, HIGH ISLAND TO BRAZOS RIVER, TX	150	0	0	0	0
SWD	TX	GIWW, HIGH ISLAND TO BRAZOS RIVER REALIGNMENTS, TX	200	200	200	200	200
SWD	TX	FREEPORT HARBOR, TX	150 400	0	0	0	0
SWD	TX	BRAZOS ISLAND HARBOR, BROWNSVILLE CHANNEL, TX CORPUS CHRISTI SHIP CHANNEL, TX		0	400	400	0
SWD	TX	, , , , , , , , , , , , , , , , , , , ,		400	400	400	122
LRD	TN			0	0	0	0
SAD	SC	WILLAMETTE RIVER FLOODPLAIN RESTORATION, OR	240	167	0	0	0
NAD NWD	NY OR	HUDSON - RARITAN ESTUARY, NY & NJ	200 240	200	200	200	200
LRD		BUFFALO RIVER ENVIRONMENTAL DREDGING, NY	100	100	100	100	100
NAD	NJ NY	HUDSON - RARITAN ESTUARY, LOWER PASSAIC RIVER, NJ	200	200	200	200	200
NAD	NJ	HUDSON - RARITAN ESTUARY, HACKENSACK MEADOWLANDS, NJ	204	204	0	0	0

Table I-2: Investigation Account, Enhanced Plan Scenario (\$ Thousands)

MSC	ST	Project Name	2009	2010	2011	2012	2013
POD	AK	ANCHORAGE HARBOR DEEPENING, AK	169	339	0	0	0
POD	AK	BARROW COASTAL STORM DAMAGE REDUCTION, AK	400	400	0	0	0
POD	AK	YAKUTAT HARBOR, AK	700	1,210	1,000	180	0
SPD	AZ	PIMA COUNTY, AZ	275	0	0	0	0
SPD	ΑZ	VA SHLY-AY AKIMEL SALT RIVER RESTORATION, AZ	1,679	0	0	0	0
SPD	CA	CALIFORNIA COASTAL SEDIMENT MASTER PLAN, CA	900	1,500	1,500	1,557	0
SPD	CA	COYOTE & BERRYESSA CREEKS, CA	1,600	1,513	1,007	0	0
SPD	CA	SAC-SAN JOAQUIN DELTA ISLANDS AND LEVEES, CA	2,000	2,000	127	0	0
SPD	CA	SOLANA BEACH, CA	171	0	0	0	0
SPD	CA	SUTTER COUNTY, CA	1,500	410	0	0	0
SPD	CA	UPPER PENITENCIA CREEK, CA	262	0	0	0	0
SAD	FL	MILE POINT, FL	50	0	0	0	0
SAD	FL	PORT EVERGLADES HARBOR, FL	650	236	0	0	0
SAD	GA	AUGUSTA, GA	625	306	0	0	0
SAD	GA	LONG ISLAND, MARSH AND JOHNS CREEKS, GA	150	42	0	0	0
SAD	GA	SAVANNAH HARBOR EXPANSION, GA	700	0	0	0	0
SAD	GA	TYBEE ISLAND, GA	250	206	0	0	0
POD	GM	HAGATNA RIVER FLOOD CONTROL, GUAM	350	144	121	0	0
POD	HI	ALA WAI CANAL, OAHU, HI	300	0	0	0	0
POD	HI	MAALAEA HARBOR, MAUI, HI	200	2	0	0	0
LRD	IL	DES PLAINES RIVER, IL (PHASE II)	500	500	188	0	0
MVD	IL	ILLINOIS RIVER BASIN RESTORATION , IL	1,000	565	565	256	0
LRD	IN	INDIANA HARBOR, IN	300	0	0	0	0
NWD	KS	TOPEKA, KS	500	500	403	251	0
MVD	LA	BAYOU SORREL LOCK, LA	1,599	1,239	0	0	0
MVD	LA	CALCASIEU LOCK, LA	800	800	480	0	0
MVD	LA	CALCASIEU RIVER BASIN, LA	67	0	0	0	0
MVD	LA	LOUISIANA COASTAL AREA ECOSYSTEM RESTORATION (Science Program), LA	19,533	20,067	20,425	0	0
MVD	LA	LOUISIANA COASTAL AREA ECOSYSTEM RESTORATION, LA	10,000	0	0	0	0
MVD	LA	ST CHARLES PARISH URBAN FLOOD CONTROL, LA	500	368	0	0	0
NAD	MA	BOSTON HARBOR (45-FOOT CHANNEL), MA	2,700	3,000	300	0	0
NAD	MA	PILGRIM LAKE, TRURO & PROVINCETOWN, MA	96	0	0	0	0
LRD	MI	GREAT LAKES NAV SYST STUDY, MI, IL, IN, MN, NY, OH, PA & WI	200	0	0	0	0
MVD	MN	WILD RICE RIVER, RED RIVER OF THE NORTH BASIN, MN	271	287	0	0	0
NWD	MO	KANSAS CITYS, MO & KS	300	15	0	0	0
NWD	MO	MO RIVER DEGRADATION, MO	88	88	88	88	88
NWD	MO	SWOPE PARK INDUSTRIAL AREA, KANSAS CITY, MO	138	0	0	0	0
NWD	MT	YELLOWSTONE RIVER CORRIDOR, MT	800	700	711	0	0
SAD	NC	CURRITUCK SOUND, NC	400	302	0	0	0
SAD	NC	NEUSE RIVER BASIN, NC	400	500	500	475	0
NAD	NH	MERRIMACK RIVER WATERSHED STUDY, NH & MA	200	600	600	600	116
NAD	NJ	DELAWARE RIVER COMPREHENSIVE, NJ	400	450	419	0	0

Table I-2: Investigation Account, Enhanced Plan Scenario Continued (\$ Thousands)

NAD	NJ	HUDSON - RARITAN ESTUARY, HACKENSACK MEADOWLANDS, NJ	207	201	0	0	0
NAD	NJ	HUDSON - RARITAN ESTUARY, LOWER PASSAIC RIVER, NJ	1,000	904	0	0	0
LRD	NY	BUFFALO RIVER ENVIRONMENTAL DREDGING, NY	400	112	0	0	0
NAD	NY	HUDSON - RARITAN ESTUARY, NY & NJ	1,000	1,000	1,000	733	0
NWD	OR	WILLAMETTE RIVER FLOODPLAIN RESTORATION, OR	240	0	0	0	0
SAD	SC	EDISTO ISLAND, SC	218	167	0	0	0
LRD	TN	MILL CREEK WATERSHED, DAVIDSON COUNTY, TN	100	0	0	0	0
SWD	TX	BRAZOS ISLAND HARBOR, BROWNSVILLE CHANNEL, TX	800	800	121	0	0
SWD	TX	CORPUS CHRISTI SHIP CHANNEL, TX		0	0	0	0
SWD	TX	FREEPORT HARBOR, TX	400	0	0	0	0
SWD	TX	GIWW, HIGH ISLAND TO BRAZOS RIVER REALIGNMENTS, TX	700	530	507	280	0
SWD	TX	GIWW, HIGH ISLAND TO BRAZOS RIVER, TX	150	0	0	0	0
SWD	TX	GIWW, PORT O'CONNOR TO CORPUS CHRISTI BAY, TX	418	282	0	0	0
SWD	TX	GUADALUPE AND SAN ANTONIO RIVER BASINS, TX	1,000	1,070	462	400	400
SWD	TX	LOWER COLORADO RIVER BASIN, TX	1,300	605	242	242	242
SWD	TX	NUECES RIVER AND TRIBUTARIES, TX	1,000	700	700	700	700
SWD	TX	RIO GRANDE BASIN, TX	100	304	0	0	0
SWD	TX	UPPER TRINITY RIVER BASIN, TX	2,000	152	0	0	0
NAD	VA	ELIZABETH RIVER, HAMPTON ROADS, VA	97	0	0	0	0
SAD	VA	JOHN H KERR DAM AND RESERVOIR, VA & NC (SECTION 216)	300	200	100	68	0
NAD	VA	LYNNHAVEN INLET, VA	175	32	0	0	0
NWD	WA	LOWER COLUMBIA RIVER ECOSYSTEM RESTORATION, OR & WA	752	750	683	0	0
NWD	WA	PUGET SOUND NEARSHORE MARINE HABITAT RESTORATION, WA	1,600	1,600	1,000	198	0
	Total - Investigations (Listed under States)		67,828	47,698	33,249	6,028	1,546
		Remaining Items	49,916	50,949	51,981	53,014	54,391
		Additional Studies and PEDS (including Remaining Items)	27,256	49,353	65,770	94,958	102,063
		Total - Investigations Appropriations	145,000	148,000	151,001	154,000	158,000

**Table I-3: Additional Studies** 

MSC	State / Territory	Project Name
POD	AK	ALASKA REGIONAL PORTS, AK
POD	AK	CRAIG HARBOR, AK
POD	AK	DELONG MOUNTAIN HARBOR, AK
POD	AK	HOMER HARBOR MODIFICATION, AK
POD	AK	KETCHIKAN HARBOR, AK
POD	AK	KLAWOCK HARBOR
POD	AK	KOTZEBUE SMALL BOAT HARBOR, AK
POD	AK	LITTLE DIOMEDE HARBOR, AK
POD	AK	MEKORYUK HARBOR, AK
POD	AK	PORT LIONS HARBOR, AK
POD	AK	UNALAKLEET HARBOR, AK
POD	AK	WHITTIER BREAKWATER, AK
SAD	AL	CAHABA RIVER BASIN, AL
SAD	AL	VILLAGE CREEK, JEFFERSON COUNTY (BIRMINGHAM WATERSHED), AL
MVD	AR	DES ARC LEVEE PROTECTION, AR
MVD	AR	LOWER MISS RESOURCE ASSESSMENT, AR IL KY LA MS MO TN
MVD	AR	RED RIVER NAVIGATION STUDY, SOUTHWEST ARKANSAS, AR
SWD	AR	SOUTHWEST ARKANSAS, AR
MVD	AR	WHITE RIVER BASIN COMPREHENSIVE, AR & MO
SPD	AZ	AGUA FRIA, TRILBY WASH, AZ
SPD	AZ	AVRA-ALTAR WATERSHED, AZ
SPD	AZ	CANADA DEL ORO, AZ
SPD	AZ	LITTLE COLORADO RIVER (WINSLOW), AZ
SPD	AZ	LITTLE COLORADO RIVER, AZ
SPD	CA	AGUA HEDIONDA, CITY OF VISTA, CA
SPD	CA	ALISO CREEK MAINSTEM, CA
SPD	CA	ARANA GULCH WATERSHED, CA
SPD	CA	ARROYO DE LA LAGUNA, CA
SPD	CA	ARROYO SECO WATERSHED, CA
SPD	CA	BALLONA CREEK ECOSYSTEM RESTORATION, CA
SPD	CA	BOLINAS LAGOON ECOSYSTEM RESTORATION, CA
SPD	CA	CITY OF INGLEWOOD
SPD	CA	CITY OF SANTA CLARITA, CA
SPD	CA	CORTE MADERA WATERSHED, CA
SPD	CA	COYOTE DAM
SPD	CA	ESTUDILLO CANAL, CA
SPD	CA	GRAYSON AND MURDERER'S CREEKS, WALNUT CREEK BASIN, CA
SPD	CA	HUMBOLDT BAY LONG TERM SHOAL MGMT
SPD	CA	HUNTINGTON HARBOR DREDGING, CA
SPD	CA	LA RIVER ECOSYSTEM RESTORATION, CA
SPD	CA	LA RIVER WATERCOURSE, SAN JOSE CREEK, CA
SPD	CA	LAGUNA CREEK WATERSHED, CA

Table I-3: Additional Studies, Continued

SPD	CA	LAGUNA DE SANTA ROSA, CA
SPD	CA	LAKE ELSINORE ENVIRONMENTAL RESTORATION, CA
SPD	CA	LOS ANGELES COUNTY, CA
SPD	CA	LOS ANGELES COUNTY, CA  LOS ANGELES RIVER ECOSYSTEM RESTORATION, CA
SPD	CA	MALIBU CREEK WATERSHED, CA
SPD	CA	N CA STREAMS, DRY CREEK, MIDDLETOWN, CA
SPD	CA	N CA STREAMS, DAY CREEK, MIDDLE TOWN, CA
SPD	CA	NAPA VALLEY WATERSHED MANAGEMENT, CA
SPD	CA	OCEAN BEACH, CA
SPD	CA	ORANGE COUNTY SANTA ANA RIVER BASIN, CA
SPD	CA	ORANGE COUNTY SHORELINE, LOWER SANTA ANA RIVER WATERSHED, CA
SPD	CA	ORANGE COUNTY SPECIAL MANAGEMENT PLAN, CA
SPD	CA	OXNARD PLAIN ECOSYSTEM RESTORATION, CA
SPD	CA	PAJARO RIVER BASIN STUDY, CA
SPD	CA	POSO CREEK, CA
SPD	CA	REDWOOD CITY HARBOR, CA
SPD	CA	RUSSIAN RIVER ECOSYSTEM RESTORATION, CA
SPD	CA	SACRAMENTO AND SAN JOAQUIN COMPREHENSIVE BASIN STUDY, CA
SPD	CA	SAN BERNARDINO LAKES AND STREAMS, CA
SPD	CA	SAN CLEMENTE SHORELINE, CA
SPD	CA	SAN DIEGO NORTH COUNTY SPECIAL AREA MANAGEMENT PLAN, CA
SPD	CA	SAN FRANCISQUITO CREEK, CA
SPD	CA	SAN GABRIEL RIVER TO NEWPORT BAY, CA
SPD	CA	SAN JACINTO RIVER, CA
SPD	CA	SAN JOAQUIN RIVER BASIN, LOWER SAN JOAQUIN, CA
SPD	CA	SAN JUAN CREEK, SOUTH ORANGE COUNTY, CA
SPD	CA	SAN PABLO BAY WATERSHED, CA
SPD	CA	SANTA CLARA RIVER WATERSHED, CA
SPD	CA	SANTA ROSA CREEK ECOSYSTEM RESTORATION, CA
SPD	CA	SAR BASIN ECO RESTORATION, CA
SPD	CA	SONOMA CREEK AND TRIBUTARIES, CA
SPD	CA	SOUTH SAN FRANCISCO SHORELINE, CA
SPD	CA	STRONG AND CHICKEN RANCH SLOUGH, CA
SPD	CA	SUN VALLEY WATERSHED, CA
SPD	CA	TAHOE, CA
SPD	CA	THE COYOTE CREEK - LOWER SAN GABRIEL WATERSHED, CA
SPD	CA	UPPER GUADALUPE RIVER, CA
SPD	CA	WALNUT CREEK, CA
SPD	CA	WESTMINSTER (EAST GARDEN GROVE) WATERSHED, CA
POD	CNMI	ROTA HARBOR MODIFICATION, CNMI
POD	CNMI	TINIAN HARBOR MODIFICATION, CNMI
NWD	co	ADAMS COUNTY, CO
NWD	co	BOULDER CREEK, CO
SPD	co	FOUNTAIN CREEK AND TRIBUTARIES, CO
NAD	DE	CHRISTINA RIVER WATERSHED, PA, DE & MD
SAD	FL	BISCAYNE BAY. FL

Table I-3: Additional Studies, Continued

SAD	FL	CFS INDIAN RIVER LAGOON, FL
SAD	FL	FLAGLER COUNTY, FL
SAD	FL	HILLSBOROUGH RIVER, FL
SAD	FL	INTRACOASTAL WATERWAY, JACKSONVILLE TO MIAMI, FL
SAD	FL	JACKSONVILLE HARBOR, FL
SAD	FL	LAKE WORTH INLET, FL
SAD	FL	PANAMA CITY HARBOR, FL
SAD	FL	PENSACOLA HARBOR, FL
SAD	FL	ST JOHN'S COUNTY, FL
SAD	FL	ST LUCIE COUNTY BEACHES, FL
SAD	FL	ST PETERSBURG HARBOR, FL
SAD	FL	WITHLACOOCHEE RIVER, FL
SAD	GA	DEEP AND CAMP CREEKS WATERSHED STUDY
SAD	GA	SAVANNAH ESTUARY AND FRESH WATER WETLANDS, GA & SC
SAD	GA	SAVANNAH HARBOR ECOSYSTEM RESTORATION, GA
SAD	GA	SAVANNAH HARBOR SEDIMENT CONTROL WORKS, GA & SC
SAD	GA	UTOY, SANDY & PROCTOR CREEKS, GA
POD	HI	HILO HBR MODIFICATIONS, HI
POD	HI	KAHULUI WEST HBR, MAUI
POD	HI	KAWAIHAE DEEP DRAFT HARBOR MOD, HI
POD	HI 	NAWILIWILI HARBOR MODIFICATION, KAUAI, HI
POD	HI	SA-LAUPAHOEHOE HBR, HAWAII, HI
MVD	IA ID	CEDAR RAPIDS, IA
NWD	ID	BOISE RIVER, BOISE, ID
LRD	IL	KEITH CREEK ROCKFORD, IL
MVD LRD	IL IL	KEITH CREEK, ROCKFORD, IL SOUTH FORK OF SOUTH BRANCH OF CHICAGO RIVER (BUBBLY CRK), IL
LRD	IN	UPPER WABASH BASIN
NWD	KS	BRUSH CREEK BASIN, KS & MO
NWD	KS	MANHATTAN, KS
SWD	KS	MARION RESERVOIR, KS, WATERSHED ECOSYSTEM RESTORATION
NWD	KS	UPPER TURKEY CREEK, KS
LRD	KY	BIG SANDY WATERSHED RE-EVALUATION, KY & VA
LRD	KY	KY RIVER LOCKS 1-4 DISP
LRD	KY	METRO BOWLING GREEN
LRD	KY	METRO LOU SOUTHWEST 013219
LRD	KY	OH RIVER SYS IMPRVMT PLAN
MVD	LA	AMITE RIVER AND TRIBUTARIES, ECOSYSTEM RESTORATION, LA
MVD	LA	AMITE RIVER AND TRIBUTARIES, LA - BAYOU MANCHAC
MVD	LA	ATCHAFALAYA RIVER AND BAYOUS CHENE, BOEUF AND BLACK, LA
MVD	LA	BOSSIER PARISH, LA
MVD	LA	CITY OF GRETNA GIS, LA
MVD	LA	EAST BATON ROUGH PARISH GIS, LA
MVD	LA	J BENNETT JOHNSTON WATERWAY, LA
MVD	LA	LIVINGSTON PARISH GIS, LA
MVD	LA	PLAQUEMINES PARISH URBAN FLOOD CONTROL, LA
MVD	LA	SOUTHWEST COASTAL LOUISIANA HURRICANE PROTECTION, LA

Table I-3: Additional Studies, Continued

MVE	) LA	ST JOHN THE BAPTIST PARISH, LA
MVE	) LA	WEST BATON ROUGE PARISH, LA
MVE	) LA	WEST SHORE, LAKE PONTCHARTRAIN, LA
NAD	MD MD	ANACOSTIA RIVER AND TRIBUTARIES, PG COUNTY LEVEE, MD & DC
NAD	MD	CHESAPEAKE BAY COMPREHENSIVE PLAN, MD, VA, PA
NAD	MD MD	SUSQUEHANNA R BASIN ENV RESTORATION & LOW FLOW MGMT PLAN, PA
NAD	ME	SEARSPORT HARBOR, ME
LRD	MI	DETROIT RIVER MASTER PLAN, MI
LRD	MI	DETROIT RIVER SEAWALLS, MI
MVE	MN	BLUE EARTH RIVER ECOSYSTEM RESTORATION, MN (MN RIVER AUTH)
MVE	MN	MARSH LAKE, MN (MN RIVER AUTHORITY)
MVE	MN	MINNEHAHA CREEK WATERSHED, UMR LAKE ITASCA TO L&D 2, MN
MVE	MN	MINNESOTA RIVER WATERSHED STUDY, MN, SD & IA
MVE	MN	RED RIVER OF THE NORTH, MN, ND, SD & MANITOBA, CANADA
MVE	MN	SECTION 524, MINNESOTA DAMS
MVE	) MN	SUNRISE RIVER WATERSHED STUDY (ST. CROIX RIVER BASIN AUTH)
MVE	_	MISSOURI AND MIDDLE MISSISSIPPI RIVERS SPRINGFIELD, MO
MVE	МО	ST LOUIS MISSISSIPPI RIVERFRONT, MO & IL
MVE	MS	WEST PEARL NAVIGATION DEAUTH
SAD	NC NC	AIWW, SNOWS CUT, NC
SAD	NC NC	NC INTERNATIONAL PORT, NC
SAD	NC NC	SURF CITY AND NORTH TOPSAIL BEACH, NC
MVE	) ND	FARGO, ND - MOORHEAD, MN & UPSTREAM
MVE	) ND	PEMBINA RIVER, ND
NAD	NJ	MANASQUAN RIVER, NJ
NAD	NJ	PECKMAN RIVER BASIN, NJ
NAD	NJ	RARITAN BAY AND SANDY HOOK BAY, HIGHLANDS, NJ
NAD	NJ	RARITAN BAY AND SANDY HOOK BAY, KEYPORT, NJ
NAD	NJ	UPPER PASSAIC RIVER AND TRIBUTARIES, NJ
SPD	NM	EAST MESA LAS CRUCES, NM
SPD	NM	SANTA FE, NM
SPD	NV	TAHOE SECTION 503
NAC	NY	DELAWARE-RIVER COMPREHENSIVE, NY, NJ, PA AND DE (WATERSHED FLD MGT PLAN)
NAD	NY	FLUSHING BAY AND CREEK, NY
NAD	NY	JAMAICA BAY, MARINE PARK AND PLUMB BEACH, NY
NAD	NY	LAKE MONTAUK HARBOR, NY
LRD	NY	ONONDAGA LAKE, NY (PL 101-596)
NAD	NY	SOUTH SHORE OF STATEN ISLAND, NY
NAD	NY	UPPER DE. RIVER BASIN, NY
NAD	NY	UPPER SUSQUEHANNA COMPREHENSIVE FLOOD DAMAGE REDUCTION, NY
NAD	NY	UPPER SUSQUEHANNA RIVER BASIN, CATATONK CREEK WATERSHED, NY
LRD	OH	CROOKSVILLE, PERRY CO., MOXAHALA CREEK, OH WATERSHED
LRD	OH	CUYAHOGA RIVER BULKHEAD STUDY, CLEVELAND, OH
LRD	OH	HOCKING RIVER BASIN ENV RESTORATION, MONDAY CREEK, OH
LRD	OH	MAHONING RIVER ENVIRONMENTAL DREDGING, OH & PA

Table I-3: Additional Studies, Continued

LRD	ОН	MUSKINGUM BASIN, OH COMP
LRD LRD	OH OH	OHIO RIVER ECOSYSTEM, OH, IN, IL, KY, WV, PA ROUGE RIVER WATERSHED, OH
LRD	ОН	STARK COUNTY WATERSHED, OH
LRD	ОН	TUSCARAWAS RIVER BASIN, OH
LRD	ОН	UPPER LICKING WATERSHED, MUSKINGUM BASIN SYSTEMS STUDY, OH
LRD	ОН	WESTERN LAKE ERIE BASIN
SWD	OK	ARKANSAS RIVER ECOSYSTEM RESTORATIONS, OK
SWD	OK	GRAND (NEOSHO) RIVER BASIN WATERSHED, OK, KS, MO & AR
SWD	OK	GRAND LAKE COMPREHENSIVE STUDY, OK
SWD	OK	OLOGAH LAKE WATERSHED, OK & KS
SWD	OK	RED RIVER WATERWAY, OK, TX & AR
SWD	OK	SOUTHEAST OKLAHOMA WATER RESOURCE STUDY, OK
SWD	OK	SPAVIANW CREEK WATERSHED, OK & AR
SWD	OK	VERDIGRIS RIVER, OK
SWD	OK	WASHITA RIVER BASIN, OK
NWD	OR	AMAZON CREEK, OR
NWD	OR	MINTO BROWN PROGRAM
NWD	OR	OREGON FISH PASSAGE
NWD	OR	WILLAMETTE RIVER BASIN REVIEW, OR
NWD	OR	WILLAMETTE RIVER ENVIRONMENTAL DREDGING, OR
NAD	PA	CHES BAY SHORELINE-SUSQUE REGIONAL & RESERVOIR SEDIMENT MGMT
LRD	PA	PINE KNOT, DELAWARE RIVER BASIN, PA
NAD	PA	SCHUYLKILL RIVER BASIN ESTUARINE, PA
NAD	PA	SCHUYLKILL RIVER BASIN, WISSAHICKON CREEK BASIN, PA
NAD	PA	SUSQUEHANNA & DELAWARE RIVER BASIN, PA
LRD	PA	UPPER OHIO NAVIGATION STUDY, PA
LRD	PA	YOUGHIOGHENY RIVER LAKE, PA AND MD
SAD	PR	RIO GRANDE DE LOIZA, PR
SAD	PR	RIO GUANAJIBO, PR
SAD SAD	PR PR	RIO NIGUA AT SALINAS, PR RIO YAGUEZ IN MAYAGUEZ, PR
SAD	SC	ASHLEY RIVER, SC
SAD	SC	CHARLESTON HARBOR, SC - POST 45 FT
SAD	SC	FOLLY RIVER, SC
SAD	SC	JASPER COUNTY PORTS
SAD	SC	PAWLEYS ISLAND, SC
SAD	SC	TOWN CREEK, SC
MVD	SD	JAMES RIVER ENVIRONMENTAL, SD
NWD	SD	JAMES RIVER, SD & ND
MVD	TN	PIDGEON INDUSTRIAL HARBOR, TN
LRD	TN	TENNESSEE-CUMBERLAND RIVERS SYSTEM, TN, KY, MS & AL
MVD	TN	UPPER MS EMBAYMENT, TN AR, MS
SWD	TX	ABILENE, TX (BRAZOS RIVER BASIN-ELM CREEK)

Table I-3: Additional Studies, Continued

SWD	TX	BOIS D'ARC CREEK, BONHAM, TX
SWD	TX	BRAZOS ISLAND HARBOR, TX
SWD	TX	DICKINSON BAYOU, TX
SWD	TX	GIWW, BRAZOS RIVER TO PORT O'CONNOR, TX
SWD	TX	GIWW, MODIFICATIONS, TX
SWD	TX	GIWW-SABINE RIVER TO HIGH ISLAND, TX
SWD	TX	LITTLE BRAZOS RIVER, TX
SWD	TX	LOWER GUADALUPE AND SAN ANTONIO RIVERS, TX
SWD	TX	LOWER SAN ANTONIO RIVER BASIN (TRI-COUNTY), TX
SWD	TX	LOWER TRINITY RIVER BASIN, TX
SWD	TX	MIDDLE BRAZOS RIVER, TX
SWD	TX	MITCHELL'S CUT CHANNEL (CANEY FORK CUT), TX
SWD	TX	SABINE PASS TO GALVESTON BAY, TX
SWD	TX	SAN BERNARD RIVER WATERSHED, TX
SPD	TX	SPARKS ARROYO COLONIA, EL PASO COUNTY, TX
SWD	TX	SULPHUR RIVER BASIN, TX
SWD	TX	UPPER COLORADO RIVER BASIN, TX
SWD	TX	UPPER TRINITY RIVER BASIN, TX
SPD	UT	PAHRUMP VALLEY WATERSHED, NV
NAD	VA	CHESAPEAKE BAY SHORELINE EROSION, MATHEWS COUNTY, VA
NAD	VA	ELIZABETH RIVER #3
NAD	VA	ELIZABETH RIVER #4
NAD	VA	ELIZABETH RIVER #5
NAD	VA	FOURMILE RUN, VA
SAD	VA	PHILPOTT LAKE, VA SECTION 216
NAD	VA	RAPPAHANNOCK RIVER, VA
NAD	VT	CONNECTICUT RIVER ECOSYSTEM RESTORATION, NH & VT
NWD	WA	CHEHALIS RIVER BASIN, WA
NWD	WA	ELLIOTT BAY SEAWALL, WA
NWD	WA	LAKE WASHINGTON SHIP CANAL, WA
NWD	WA	MT. ST. HELENS, WA
NWD	WA	PORT TOWNSEND, WA
NWD	WA	SKAGIT R, WA/SKAGIT CO, WA
NWD	WA	SKOKOMISH RIVER BASIN, WA
NWD	WA	VANCOUVER LAKE
MVD	WI	CALEDONIA LEVEE, WI (BARABOO RIVER)
MVD	WI	ST. CROIX HEADWATERS WATERSHED STUDY, WI (ST. CROIX R BASIN AUTH)
MVD	WI	ST. CROIX R, WI RELOC OF ENDANG MUSSELS (ZEBRA MUSSEL CONT-UMR)
LRD	WV	LOWER KANAWHA RIVER, WV
LRD	WV	UPPER GUYANDOTTE RIV, WV (OCEANA, MULLENS, MATHENY, PINEVILE

Table I-3: Additional <u>PEDs</u>

MSC	Executive Position	State / Territory	Project Name
			Projects with a Favorable Executive Position
POD	F	AK	HAINES HARBOR, AK
SPD	F	CA	HAMILTON CITY, CA
SPD	F	CA	LOWER MISSION CREEK, CA
SPD	F	CA	PAJARO RIVER AT WATSONVILLE, CA
SPD	F	CA	YUBA RIVER BASIN, CA
SAD	F	FL	LIDO KEY, FL
SAD	F	GA	SAVANNAH HARBOR EXPANSION, GA
MVD	F	IA	DES MOINES AND RACCOON RIVERS, IA
MVD	F	IL	PRARIE DU PONT AND FISH LAKE FLOOD PROTECTION, IL
NWD	F	МО	MISSOURI RIVER LEVEE SYSTEM, UNITS 1455 & R460-471, MO & KS
NAD	F	PA	BLOOMSBURG, PA
SWD	F	TX	LOWER COLORADO WHARTON/ONION TX
SWD	F	TX	RAYMONDVILLE DRAIN, TX
NWD	F	WA	CENTRALIA, WA
			Projects with No Position and/or a Negative Executive Position
POD	I	AK	AKUTAN, AK
POD	I	AK	PORT LIONS HARBOR, AK
SWD	I	AR	LITTLE RIVER COUNTY, AR
SWD	I	AR	PINE MOUNTAIN LAKE, AR
MVD	I	AR	WHITE RIVER NAVIGATION TO NEWPORT, AR
SPD	I	AZ	RILLITO RIVER, PIMA COUNTY, AZ
SPD	I	AZ	RIO SALADO OESTE, SALT RIVER, AZ
SPD	I	AZ	SANTA CRUZ RIVER, PASEO DE LAS IGLESIAS, AZ
SPD	I	CA	ESTUDILLO CANAL, CA
SPD	I	CA	LLAGAS CREEK, CA
SPD	I	CA	MATILIJA DAM, CA
SPD	I	CA	MIDDLE CREEK, CA
SPD	I	CA	PENINSULA BEACH, CA
SPD	I	CA	WHITEWATER RIVER BASIN, CA
NWD	I	СО	CACHE LA POUDRE, CO
NAD	I	DC	CHES BAY SHORELINE-SEDI BUDG, MODEL & REG SEDI MGT, MD, PA & VA
SAD	I	FL	CSF INDIAN RIVER LAGOON, FL
SAD	1	FL	MIAMI HARBOR CHANNEL, FL
SAD	1	FL	WALTON COUNTY, FL
POD	1	н	BARBERS POINT HARBOR MODIFICATION, OAHU, HI
POD	1	н	KAUMALAPAU HARBOR, LANAI, HI
MVD	1	IA	UPPER MISS RVR COMPREHENSIVE PLAN, IL, IA, MO, MN & WI

I = No Position or Negative

Table I-3: Additional PEDs, Continued

LRD	ı	KY	BUCKHORN LAKE, KY REALLOC
LRD	ı	KY	GREEN & BARREN DISP PED
LRD	ı	KY	LICKING RIVER, CYNTHIANA, KY
LRD	ı	KY	METRO LOU MILL CK
MVD	ı	LA	CALCASIEU RIVER AND PASS NAVIGATION, LA
MVD	I	LA	EAST BATON ROUGE PARISH, LA
MVD	I	LA	PORT OF IBERIA, LA
NAD	I	MD	EASTERN SHORE, MID CHESAPEAKE BAY ISLAND, MD
NAD	I	MD	LOWER POTOMAC ESTUARY WATERSHED, ST MARY'S WATERSHED, MD
LRD	I	MI	ECORSE CREEK, MI
MVD	I	MO	DARDENNE CREEK, MO
NWD	I	MO	KANSAS CITY, MO & KS
MVD	Ţ	MO	RIVER DES PERES, MO
SAD	Ţ	NC	BOGUE BANKS, NC
MVD	Ţ	NC	MRLS UNIT L-246 REVIEW, MO
SAD	I	NC	WEST ONSLOW BEACH & NEW RIVER INLET, NC
NAD	I	NH	PORTSMOUTH HARBOR & PISCATAQUA RIVER, TURNING BASIN, NH
NAD	I	NJ	PASSAIC RIVER MAIN STEM, NJ
NAD	I	NJ	PASSAIC RIVER, HARRISON, NJ
NAD	I	NJ	RARITAN BAY AND SANDY HOOK BAY, LEONARDO, NJ
NAD	I	NJ	SOUTH RIVER, RARITAN RIVER BASIN, NJ
NAD	I	NJ	STONY BROOK, MILLSTONE RIVER BASIN, NJ
NAD	I	NJ	UPPER ROCKAWAY RIVER, NJ
SPD	I	NV	TRUCKEE MEADOWS, NV
NAD	I	NY	BRONX RIVER BASIN, NY
NAD	I	NY	MONTAUK POINT, NY
NAD	Ţ	NY	WCS MARARONECK/SHELDRAKE, NY
LRD	I	ОН	BELPRE, OH
NWD	I	SD	WATERTOWN AND VICINITY, SD
SWD	I	TX	HALLS BAYOU, HOUSTON, TX
SWD	I	TX	SABINE - NECHES WATERWAY, TX
NWD	I	WA	GRAYS HARBOR, WA
NWD	I	WA	WALLA WALLA RIVER WATERSHED, OR & WA
LRD	I	WV	ERICSON/WOOD COUNTY PORT, WV
LRD	I	WV	PARKERSBURG RIVERFRONT PARK, WV

I = No Position or Negative

Table C-1: Construction Account, Base Plan Scenario (\$ Thousands)

MSC	State	Project	2009	2010	2011	2012	2013
SWD	AR	OZARK - JETA TAYLOR LOCK AND DAM, AR *	17,300	17,300	5,673	0	0
SPD	CA	AMERICAN RIVER WATERSHED (COMMON FEATURES), CA	22,000	22,000	22,000	22,000	22,000
SPD	CA	HAMILTON AIRFIELD WETLANDS RESTORATION, CA	4,900	4,900	4,900	4,900	4,900
SPD	CA	KAWEAH RIVER, CA *	1,000	0	0	0	0
SPD	CA	LOS ANGELES COUNTY DRAINAGE AREA, CA *	5,700	0	0	0	0
SPD	CA	NAPA RIVER, CA	7,395	7,395	7,395	7,395	7,395
SPD	CA	OAKLAND HARBOR (50 FOOT PROJECT), CA *	25,092	0	0	0	0
SPD	CA	SACRAMENTO DEEPWATER SHIP CHANNEL, CA	900	900	900	900	900
SPD	CA	SACRAMENTO RIVER BANK PROTECTION PROJECT, CA	23,968	23,968	23,968	23,968	23,968
SPD	CA	SANTA ANA RIVER MAINSTEM, CA	8,100	8,100	8,100	8,100	8,100
SPD	CA	SOUTH SACRAMENTO COUNTY STREAMS, CA *	12,000	7,207	0	0	0
SPD	CA	SUCCESS DAM, TULE RIVER, CA (DAM SAFETY)	8,000	8,000	8,000	8,000	8,000
SAD	FL	CEDAR HAMMOCK, WARES CREEK, FL *	2,773	2,773	1,446	0	0
SAD	FL	HERBERT HOOVER DIKE, FL (Seepage Control)	77,400	77,400	77,400	77,400	77,400
SAD	FL	SOUTH FLORIDA EVERGLADES ECOSYSTEM RESTORATION	185,000	185,000	185,000	185,000	185,000
SAD	FL	ST LUCIE INLET, FL *	4,000	0	0	0	0
SAD	GA	RICHARD B RUSSELL DAM AND LAKE, GA & SC *	1,450	1,450	165	0	0
MVD	IL	CHAIN OF ROCKS CANAL, MISSISSIPPI RIVER, IL (DEF CORR)	2,500	2,500	2,500	2,500	2,500
LRD	IL	CHICAGO SANITARY AND SHIP CANAL DISPERSAL BARRIER, IL *	6,250	3,383	0	0	0
LRD	IL	CHICAGO SHORELINE, IL	1,000	1,000	1,000	1,000	1,000
LRD	IL	DES PLAINES RIVER, IL	5,620	5,620	5,620	5,620	5,620
MVD	IL	EAST ST LOUIS, IL *	200	200	200	200	200
MVD	IL	ILLINOIS WATERWAY, LOCKPORT LOCK AND DAM, IL (REPLACEMENT) $\ast$	28,600	28,600	28,600	21,782	0
LRD	IL	MCCOOK AND THORNTON RESERVOIRS, IL	34,000	34,000	34,000	34,000	34,000
LRD	IL	OLMSTED LOCKS AND DAM, OHIO RIVER, IL & KY	114,000	114,000	114,000	114,000	114,000
MVD	IL	UPPER MISSISSIPPI RIVER RESTORATION, IL, IA, MN, MO & WI	20,000	20,000	20,000	20,000	20,000
MVD	IL	WOOD RIVER LEVEE, IL	684	684	684	684	684
LRD	IN	LITTLE CALUMET RIVER, IN *	8,000	8,000	8,000	837	0
NWD	KS	TURKEY CREEK BASIN, KS & MO *	10,000	10,000	10,000	6,624	0
NWD	KS	TUTTLE CREEK LAKE, KS *	23,800	529	0	0	0
LRD	KY	KENTUCKY LOCK AND DAM, TENNESSEE RIVER, KY	22,330	22,330	22,330	22,330	22,330
LRD	KY	MCALPINE LOCKS AND DAM, OHIO RIVER, KY & IN *	6,270	0	0	0	0
LRD	KY	WOLF CREEK DAM, LAKE CUMBERLAND, KY *	57,000	57,000	57,000	40,066	0
MVD	LA	J BENNETT JOHNSTON WATERWAY, LA	1,500	1,500	1,500	1,500	1,500
NAD	MA	MUDDY RIVER, MA	4,000	4,000	4,000	4,000	4,000
MVD	MN	CROOKSTON, MN *	300	0	0	0	0
NWD	MO	BLUE RIVER CHANNEL, KANSAS CITY, MO	1,700	1,700	1,700	1,700	1,700
SWD	MO	CLEARWATER LAKE, MO *	25,000	25,000	25,000	25,000	5,856
MVD	MO	MISS RIVER BTWN THE OHIO AND MO RIVERS (REG WORKS), MO $\&$ IL	5,011	5,011	5,011	5,011	5,011
MVD	MO	ST LOUIS FLOOD PROTECTION, MO *	2,000	2,000	2,000	1,298	0
NWD	ND	GARRISON DAM, LAKE SAKAKAWEA, ND	3,500	3,500	3,500	3,500	3,500
NWD	NE	ANTELOPE CREEK, NE *	4,828	0	0	0	0

**Table C-1: Construction Account, Base Plan Scenario Continued** (\$ **Thousands**)

NAD	NJ	BARNEGAT INLET TO LITTLE EGG HARBOR INLET, NJ	11,700	11,700	11,700	11,700	11,700
NAD	NJ	RARITAN RIVER BASIN, GREEN BROOK SUB-BASIN, NJ	10,000	10,000	10,000	10,000	10,000
SPD	NM	ALAMOGORDO, NM	4,200	4,200	4,200	4,200	4,200
SPD	NM	RIO GRANDE FLOODWAY, SAN ACACIA TO BOSQUE DEL APACHE, NM	800	800	800	800	800
NAD	NY	ATLANTIC COAST OF NYC, ROCKAWAY INLET TO NORTON POINT, NY	3,800	3,800	3,800	3,800	3,800
NAD	NY	FIRE ISLAND INLET TO MONTAUK POINT, NY	2,150	2,150	2,150	2,150	2,150
NAD	NY	NEW YORK AND NEW JERSEY HARBOR, NY & NJ	90,000	90,000	90,000	90,000	90,000
LRD	ОН	METROPOLITAN REGION OF CINCINNATI, DUCK CREEK, OH *	4,000	4,000	4,000	1,384	0
SWD	OK	CANTON LAKE, OK *	21,200	21,200	4,372	0	0
NWD	OR	COLUMBIA RIVER CHANNEL IMPROVEMENTS, OR & WA *	36,000	0	0	0	0
NWD	OR	COLUMBIA RIVER TREATY FISHING ACCESS SITES, OR & WA *	2,455	2,455	2,455	2,455	2,400
NWD	OR	ELK CREEK LAKE, OR	3,120	3,120	3,120	3,120	3,120
LRD	PA	EMSWORTH LOCKS AND DAM, OHIO RIVER, PA *	25,800	25,800	25,800	8,733	0
LRD	PA	GRAYS LANDING LOCK AND DAM, MONONGAHELA RIVER, PA *	600	0	0	0	0
LRD	PA	LOCKS AND DAMS 2, 3 AND 4, MONONGAHELA RIVER, PA *	40,806	40,806	40,806	28,857	0
LRD	PA						0
SAD	PR	PORTUGUES AND BUCANA RIVERS, PR *	45,000	29,643	0		
SAD	PR	RIO PUERTO NUEVO, PR	12,000	12,000	12,000	12,000	12,000
LRD	TN	CENTER HILL LAKE, TN *	53,400	53,400	53,400	53,400	10,812
LRD	TN	CHICKAMAUGA LOCK, TENNESSEE RIVER, TN	42,000	42,000	42,000	42,000	42,000
SWD	TX	BRAYS BAYOU, HOUSTON, TX	5,382	5,382	5,382	5,382	5,382
SWD	TX	HOUSTON - GALVESTON NAVIGATION CHANNELS, TX	21,700	21,700	21,700	21,700	21,700
SWD	TX	SIMS BAYOU, HOUSTON, TX *	23,465	14,504	0	0	0
SAD	VA	JOHN H KERR LAKE, VA & NC *	14,000	14,000	2,313	0	0
SAD	VA	ROANOKE RIVER UPPER BASIN, HEADWATERS AREA, VA	1,075	1,075	1,075	1,075	1,075
NWD	WA	LOWER COLUMBIA RIVER ECOSYSTEM RESTORATION, OR & WA	1,500	1,500	1,500	1,500	1,500
NWD	WA	MT ST HELENS SEDIMENT CONTROL, WA	1,410	1,410	1,410	1,410	1,410
NWD	WA	MUD MOUNTAIN DAM, WA	1,000	1,000	1,000	1,000	1,000
LRD	WV	BLUESTONE LAKE, WV	12,000	12,000	12,000	12,000	12,000
LRD	WV	MARMET LOCK, KANAWHA RIVER, WV *	9,000	0	0	0	0
LRD	WV	ROBERT C BYRD LOCKS AND DAM, OHIO RIVER, WV & OH *	1,000	0	0	0	0
LRD	WV	STONEWALL JACKSON LAKE, WV *	900	0	0	0	0
		Total - Construction (Listed Under States)	1,296,684	1,161,952	1,093,575	997,624	796,613
		Additional Projects and Programs (Including CAPs and Remaining Items)	0	36,732	117,109	207,060	402,071
		Continuing Authorities Program	22,316	22,316	22,316	22,316	22,316
		Remaining Items	83,000	83,000	83,000	83,000	83,000
		Total - Construction Appropriation	1,402,000	1,304,000	1,316,000	1,310,000	1,304,000

<sup>\*</sup> Denotes Projects Completing

Table C-2: Construction Account, Enhanced Plan Scenario (\$ Thousands)

MSC	ST	Project	2009	2010	2011	2012	2013
SWD	AR	OZARK - JETA TAYLOR LOCK AND DAM, AR *	17,300	17,300	5,673	0	0
SPD	CA	AMERICAN RIVER WATERSHED (COMMON FEATURES), CA	22,000	22,000	22,000	33,000	52,000
SPD	CA	HAMILTON AIRFIELD WETLANDS RESTORATION, CA	8,026	4,900	20,000	20,000	20,000
SPD	CA	KAWEAH RIVER, CA *	1,000	0	0	0	0
SPD	CA	LOS ANGELES COUNTY DRAINAGE AREA, CA *	5,700	0	0	0	0
SPD	CA	NAPA RIVER, CA	7,395	7,395	7,395	7,395	38,000
SPD	CA	OAKLAND HARBOR (50 FOOT PROJECT), CA *	25,092	0	0	0	0
SPD	CA	SACRAMENTO DEEPWATER SHIP CHANNEL, CA *	1,100	900	8,000	6,500	1,364
SPD	CA	SACRAMENTO RIVER BANK PROTECTION PROJECT, CA *	103,000	23,968	20,000	9,843	0
SPD	CA	SANTA ANA RIVER MAINSTEM, CA	8,100	8,100	8,100	8,100	110,600
SPD	CA	SOUTH SACRAMENTO COUNTY STREAMS, CA *	12,000	7,207	0	0	0
SPD	CA	SUCCESS DAM, TULE RIVER, CA (DAM SAFETY) *	8,000	150,000	110,000	110,000	40,469
SAD	FL	CEDAR HAMMOCK, WARES CREEK, FL *	2,773	2,773	1,446	0	0
SAD	FL	HERBERT HOOVER DIKE, FL (Seepage Control)	77,400	135,875	139,995	153,741	152,464
SAD	FL	SOUTH FLORIDA EVERGLADES ECOSYSTEM RESTORATION	250,000	275,000	300,000	325,000	350,000
SAD	FL	ST LUCIE INLET, FL *	4,000	0	0	0	0
SAD	GA	RICHARD B RUSSELL DAM AND LAKE, GA & SC *	1,450	1,450	165	0	0
MVD	IL	CHAIN OF ROCKS CANAL, MISSISSIPPI RIVER, IL (DEF CORR) *	2,500	2,500	2,500	11,450	1,477
LRD	IL	CHICAGO SANITARY AND SHIP CANAL DISPERSAL BARRIER, IL *	6,250	3,383	0	0	0
LRD	IL	CHICAGO SHORELINE, IL *	6,000	853	1,000	0	0
LRD	IL	DES PLAINES RIVER, IL *	5,620	5,620	5,620	11,619	0
MVD	IL	EAST ST LOUIS, IL *	200	200	1,007	0	0
MVD	IL	ILLINOIS WATERWAY, LOCKPORT LOCK AND DAM, IL (REPLACEMENT) *	28,600	25,600	25,000	20,000	8,382
LRD	IL	MCCOOK AND THORNTON RESERVOIRS, IL	34,000	34,000	34,000	34,000	44,000
LRD	IL	OLMSTED LOCKS AND DAM, OHIO RIVER, IL & KY	114,000	114,000	114,000	114,000	114,000
MVD	IL	UPPER MISSISSIPPI RIVER RESTORATION, IL, IA, MN, MO & WI	33,400	33,170	33,170	33,170	33,170
MVD	IL	WOOD RIVER LEVEE, IL	684	684	684	784	3,150
LRD	IN	LITTLE CALUMET RIVER, IN *	8,000	8,000	8,000	837	0
NWD	KS	TURKEY CREEK BASIN, KS & MO *	10,000	10,000	10,000	6,624	0
NWD	KS	TUTTLE CREEK LAKE, KS *	23,800	529	0	0	0
LRD	KY	KENTUCKY LOCK AND DAM, TENNESSEE RIVER, KY	22,330	22,330	22,330	22,330	65,664
LRD	KY	MCALPINE LOCKS AND DAM, OHIO RIVER, KY & IN *	6,270	0	0	0	0
LRD	KY	WOLF CREEK DAM, LAKE CUMBERLAND, KY *	57,000	90,000	64,066	0	0
MVD	LA	J BENNETT JOHNSTON WATERWAY, LA	1,500	1,500	1,500	1,500	20,000
NAD	MA	MUDDY RIVER, MA *	4,000	4,000	11,000	7,130	0
MVD	MN	CROOKSTON, MN *	300	0	0	0	0
NWD	MO	BLUE RIVER CHANNEL, KANSAS CITY, MO	1,700	1,700	1,700	9,300	11,639
SWD	MO	CLEARWATER LAKE, MO *	25,000	25,000	25,000	25,000	5,856
MVD	MO	MISS RIVER BTWN THE OHIO AND MO RIVERS (REG WORKS), MO $\&$ IL	5,011	5,011	7,160	8,200	8,200
MVD	МО	ST LOUIS FLOOD PROTECTION, MO *	2,000	2,000	2,000	1,298	0
NWD	ND	GARRISON DAM, LAKE SAKAKAWEA, ND *	3,500	3,500	15,000	8,000	6,157
NWD	NE	ANTELOPE CREEK, NE *	4,828	0	0	0	0

Table C-2: Construction Account, Enhanced Plan Scenario Continued (\$ Thousands)

NAD	NJ	BARNEGAT INLET TO LITTLE EGG HARBOR INLET, NJ *	11,700	11,700	11,700	35,000	29,509
NAD	NJ	RARITAN RIVER BASIN, GREEN BROOK SUB-BASIN, NJ	10,000	10,000	10,000	10,000	20,000
SPD	NM	ALAMOGORDO, NM	4,200	4,200	4,200	4,200	4,200
SPD	NM	RIO GRANDE FLOODWAY, SAN ACACIA TO BOSQUE DEL APACHE, NM	800	800	800	800	800
NAD	NY	ATLANTIC COAST OF NYC, ROCKAWAY INLET TO NORTON POINT, NY	3,800	3,800	3,800	3,800	5,615
NAD	NY	FIRE ISLAND INLET TO MONTAUK POINT, NY	2,150	2,150	2,150	2,150	3,150
NAD	NY	NEW YORK AND NEW JERSEY HARBOR, NY & NJ *	170,900	90,000	107,400	162,716	0
LRD	ОН	METROPOLITAN REGION OF CINCINNATI, DUCK CREEK, OH *	4,000	4,000	4,000	1,384	0
SWD	OK	CANTON LAKE, OK	21,200	8,100	5,895	2,600	400
NWD	OR	COLUMBIA RIVER CHANNEL IMPROVEMENTS, OR & WA *	36,000	0	0	0	0
NWD	OR	COLUMBIA RIVER TREATY FISHING ACCESS SITES, OR & WA *	2,455	2,455	2,455	2,455	2,400
NWD	OR	ELK CREEK LAKE, OR	3,120	3,120	3,120	3,120	3,120
LRD	PA	EMSWORTH LOCKS AND DAM, OHIO RIVER, PA	25,800	35,067	10,307	4,500	5,014
LRD	PA	GRAYS LANDING LOCK AND DAM, MONONGAHELA RIVER, PA *	600	0	0	0	0
LRD	PA	LOCKS AND DAMS 2, 3 AND 4, MONONGAHELA RIVER, PA *	40,806	82,024	28,445	0	0
LRD	PA	POINT MARION, LOCK AND DAM 8, MONONGAHELA RIVER, PA & WV *	150	0	0	0	0
SAD	PR	PORTUGUES AND BUCANA RIVERS, PR *	45,000	45,000	45,000	29,643	0
SAD	PR	RIO PUERTO NUEVO, PR	12,000	12,000	12,000	19,000	25,000
LRD	TN	CENTER HILL LAKE, TN *	53,400	56,700	56,500	50,700	7,112
LRD	TN	CHICKAMAUGA LOCK, TENNESSEE RIVER, TN	42,000	42,000	42,000	42,000	46,000
SWD	TX	BRAYS BAYOU, HOUSTON, TX *	27,724	5,382	89,688	104,496	46,194
SWD	TX	HOUSTON - GALVESTON NAVIGATION CHANNELS, TX	21,700	21,700	21,700	21,700	21,700
SWD	TX	SIMS BAYOU, HOUSTON, TX *	23,465	14,504	0	0	0
SAD	VA	JOHN H KERR LAKE, VA & NC *	14,000	14,000	2,313	0	0
SAD	VA	ROANOKE RIVER UPPER BASIN, HEADWATERS AREA, VA $^{st}$	1,075	1,075	1,075	4,735	516
NWD	WA	LOWER COLUMBIA RIVER ECOSYSTEM RESTORATION, OR & WA	1,500	1,500	1,500	1,500	3,080
NWD	WA	MT ST HELENS SEDIMENT CONTROL, WA	1,410	1,410	1,410	5,410	5,410
NWD	WA	MUD MOUNTAIN DAM, WA	1,000	1,000	1,000	1,000	24,100
LRD	WV	BLUESTONE LAKE, WV	12,000	8,800	22,900	22,600	24,000
LRD	WV	MARMET LOCK, KANAWHA RIVER, WV *	9,000	0	0	0	0
LRD	WV	ROBERT C BYRD LOCKS AND DAM, OHIO RIVER, WV & OH $^{\ast}$	1,000	0	0	0	0
LRD	WV	STONEWALL JACKSON LAKE, WV *	900	0	0	0	0
		Total - Construction (Listed Under States)	1,565,684	1,532,935	1,518,869	1,524,330	1,363,912
		Additional Projects and Programs (Including CAPs and Remaining Items)	0	37,434	54,311	51,661	212,079
		Continuing Authorities Program	22,316	22,383	22,423	22,463	22,463
		Remaining Items	83,000	83,248	83,397	83,546	83,546
<u> </u>		Total - Construction Appropriation	1,671,000	1,676,000	1,679,000	1,682,000	1,682,000

\* Denotes Projects Completing

**Table C-3: Additional Construction Projects** 

MSC	Executive Position	State / Territory	Project Name
			Projects with a Favorable Executive Position
POD	F	AK	SITKA HARBOR (Def Corr), AK
POD	F	AK	UNALASKA HARBOR, AK
SAD	F	AL	MOBILE TURNING BASIN, AL
SPD	F	AZ	NOGALES WASH, AZ
SPD	F	AZ	RILLITO RIVER, AZ
SPD	F	AZ	RIO SALADO, PHOENIX AND TEMPE REACHES, AZ
SPD	F	CA	MID-VALLEY AREA LEVEE RECONSTRUCTION, CA
SPD	F	CA	NAPA RIVER, SALT MARSH RESTORATION, CA
SPD	F	CA	SACRAMENTO RIVER, GLENN COLUSA, CA
SPD	F	CA	SAN FRANCISCO TO STOCKTON, CA
SPD	F	CA	SAN LUIS REY RIVER, CA
SPD	F	CA	STOCKTON METRO, CA
SPD	F	CA	TULE RIVER, CA
NAD	F	DC	WASHINGTON, DC & VICINITY
NAD	F	DE	DELAWARE BAY, BETHANY TO SOUTH BETHANY, DE
NAD	F	DE	DELAWARE COAST, CAPE HENLOPEN, DE
SAD	F	FL	BROWARD COUNTY, FL
SAD	F	FL	CANAVERAL HARBOR, FL
SAD	F	FL	JACKSONVILLE HARBOR, FL
SAD	F	FL	LEE COUNTY, FL (REIMBURSABLE)
SAD	F	FL	PORT EVERGLADES, FL
SAD	F	FL	UPPER ST JOHN RIVER, FL
SAD	F	GA	BRUNSWICK HARBOR, GA
SAD	F	GA	SAVANNAH HARBOR EXPANSION, GA
SAD	F	GA	THURMOND LAKE POWERPLANT, GA/SC
POD	F	HI	KIKIAOLA HARBOR, HI
MVD	F	IA	DES MOINES RECREATION RIVER AND GREENBELT, IA
MVD	F	IL	ALTON TO GALE, IL & MO
MVD	F	IL	MELVIN PRICE L&D, IL & MO
MVD	F	IL	MISSISSIPPI SHIP CHANNEL, GULF TO BATON ROUGE
LRD	F	IN	INDIANAPOLIS NORTH, IN
LRD	F	IN	JOHN T MYERS LOCKS AND DAM, IN & KY
LRD	F	IN	OHIO RIVER GREENWAY, IN
LRD	F	KY	GREENUP LOCKS AND DAM, OHIO RIVER, KY & OH
MVD	F	LA	COMITE RIVER, LA
MVD	F	LA	EAST BATON ROUGE (ORIGINAL PROJECT)
MVD	F	LA	INNER HARBOR NAVIGATION CANAL LOCK, LA
MVD	F	LA	SOUTHEAST LOUISIANA, LA (authorized elements)

I = No Position or Negative

**Table C-3: Additional Construction Projects, Continued** 

NAD	F	MD	CHESAPEAKE OYSTERS, MD
MVD	F	MN	BRECKENRIDGE, MN
MVD	F	MN	ROSEAU, MN
NWD	F	МО	BLUE RIVER BASIN, KANSAS CITY, MO
MVD	F	МО	BLUE RIVER CHANNEL, MO
MVD	F	МО	CHESTERFIELD, MO
NWD	F	МО	MISSOURI & MIDDLE MISSISSIPPI RIVERS ENHANCEMENT, MO
NWD	F	МО	MISSOURI RIVER LEVEE SYSTEM, IA, NE, KS & MO
MVD	F	МО	MISSOURI RIVER LEVEES (CERTAIN ELEMENTS)
MVD	F	МО	STE GENEVIEVE, MO
SAD	F	NC	BRUNSWICK COUNTY BEACHES, NC
SAD	F	NC	MANTEO (SHALLOWBAG) Bay, NC
SAD	F	NC	WEST ONSLOW BEACH AND NEW RIVER INLET, NC
SAD	F	NC	WILMINGTON HARBOR, NC
NWD	F	NE	MISSOURI NATIONAL RECREATIONAL RIVER, NE AND SD
NWD	F	NE	SAND CREEK WATERSHED, SAUNDERS COUNTY, NEBRASKA
NWD	F	NE	WESTERN SARPY COUNTY AND CLEAR CREEK
NAD	F	NJ	DELAWARE BAY COASTLINE, DE & NJ REEDS BEACH TO PIERCES POINT
NAD	F	NJ	DELAWARE BAY COASTLINE, VILLAS, DE & NJ
NAD	F	NJ	DELAWARE RIVER MAIN CHANNEL, NJ, PA & DE
NAD	F	NJ	LOWER CAPE MAY MEADOWS, CAPE MAY POINT, NJ
NAD	F	NJ	PASSAIC RIVER PRESERVATION OF NATURAL STORAGE AREAS, NJ
NAD	F	NJ	RAMAPO AND MAHWAH RIVERS, MAHWAH, NJ AND SUFFERN, NY
NAD	F	NJ	RARITAN BAY AND SANDY HOOK BAY (PORT MONMOUTH), NJ
NAD	F	NJ	SANDY HOOK TO BARNEGAT, NJ
SPD	F	NM	ACEQUIAS IRRIGATION SYSTEM, NM
SPD	F	NM	MIDDLE RIO GRANDE, BERNALILLO TO BELEN, NM
SPD	F	NM	SW VALLEY FLOOD DAMAGE REDUCTION ALBUQUERQUE
SPD	F	NV	TROPICANA FLAMINGO, NV
NAD	F	NY	ATLANTIC COAST, LONG BEACH ISLAND (POINT LOOKOUT), NY
NAD	F	NY	FIRE ISLAND INLET TO JONES INLET, NY
NAD	F	NY	NEW YORK HBR COLLECTION & REMOVAL OF DRIFT, NY & NJ
LRD	F	OH	HOLES CREEK, WEST CARROLLTON, OH
LRD	F	ОН	METROPOLITAN CINCINNATI, DUCK CREEK, OH
LRD	F	ОН	MILL CREEK, OH
SWD	F	ок	MCCLELLAN-KERR AR RIVER NAVIGATION SYSTEM, 12 FOOT NAVIGATION CHANNEL
SWD	F	OK	WEBBERS FALLS L&D POWERHOUSE, OK
NAD	F	PA	WYOMING VALLEY, PA (LEVEE RAISING)
SAD	F	PR	RIO DE LA PLATA, PR
SAD	F	PR	SAN JUAN HARBOR, PR

I = No Position or Negative

**Table C-3: Additional Construction Projects, Continued** 

SAD	F	sc	CHARLESTON HARBOR, SC
NWD	F	SD	BIG SIOUX RIVER, SIOUX FALLS, SD
NWD	F	SD	CHEYENNE RIVER SIOUX, SD
NWD	F	SD	FORT RANDALL DAM, LAKE FRANCIS CASE, SD
SWD	F	TX	BUFFALO BAYOU AND TRIBUTARIES, WHITE OAK BAYOU, TX
SWD	F	TX	CEDAR BAYOU, TX
SWD	F	TX	CLEAR CREEK, TX
SPD	F	TX	EL PASO, TX
SWD	F	TX	GIWW, MATAGORDA BAY, TX
SWD	F	TX	GRAHAM, TX (BRAZOS R.B.)
SWD	F	TX	GREENS BAYOU, TX
SWD	F	TX	HUNTING BAYOU, TX
SWD	F	TX	SAN ANTONIO CHANNEL IMPROVEMENT PROJECT
SWD	F	TX	TEXAS CITY CHANNEL (50-FOOT PROJECT), TX
SWD	F	TX	WHITNEY LAKE, TX
LRD	F	VA	LEVISA AND TUG FORKS (GRUNDY), VA
NAD	F	VA	NORFOLK HARBOR (DEEPENING), VA
NWD	F	WA	DUWAMISH-GREEN, WA
NWD	F	WA	LOWER COLUMBIA RIVER ECOSYSTEM RESTORATION, OR & WA
LRD	F	WV	MOOREFIELD, WV (Def Corr)
A NA/ED	F	WY	JACKSON HOLE RESTORATION, WY
NWD	Г	V V I	orione or the creation, the
NVVD	Г	VVI	Projects with No Position and/or a Negative Executive Position
POD	I	AK	·
			Projects with No Position and/or a Negative Executive Position
POD	I	AK	Projects with No Position and/or a Negative Executive Position  ALASKA COASTAL EROSION, AK
POD POD	l I	AK AK	Projects with No Position and/or a Negative Executive Position  ALASKA COASTAL EROSION, AK  BETHEL BANK STABILIZATION, AK
POD POD POD	I I I	AK AK AK	Projects with No Position and/or a Negative Executive Position  ALASKA COASTAL EROSION, AK  BETHEL BANK STABILIZATION, AK  CHIGNIK HARBOR, AK
POD POD POD		AK AK AK AK	Projects with No Position and/or a Negative Executive Position  ALASKA COASTAL EROSION, AK BETHEL BANK STABILIZATION, AK CHIGNIK HARBOR, AK DILLINGHAM EMERGENCY BANK STABILIZATION
POD POD POD POD POD	1 1 1 1	AK AK AK AK AK	Projects with No Position and/or a Negative Executive Position  ALASKA COASTAL EROSION, AK BETHEL BANK STABILIZATION, AK CHIGNIK HARBOR, AK DILLINGHAM EMERGENCY BANK STABILIZATION FALSE PASS HARBOR, AK
POD POD POD POD POD	1 1 1 1	AK AK AK AK AK	Projects with No Position and/or a Negative Executive Position  ALASKA COASTAL EROSION, AK BETHEL BANK STABILIZATION, AK CHIGNIK HARBOR, AK DILLINGHAM EMERGENCY BANK STABILIZATION FALSE PASS HARBOR, AK SEWARD HARBOR
POD POD POD POD POD POD	1 1 1 1 1	AK AK AK AK AK AK	Projects with No Position and/or a Negative Executive Position  ALASKA COASTAL EROSION, AK BETHEL BANK STABILIZATION, AK CHIGNIK HARBOR, AK DILLINGHAM EMERGENCY BANK STABILIZATION FALSE PASS HARBOR, AK SEWARD HARBOR ST PAUL HARBOR, AK
POD POD POD POD POD POD POD	1 1 1 1 1 1 1 1	AK AK AK AK AK AK AK	Projects with No Position and/or a Negative Executive Position  ALASKA COASTAL EROSION, AK BETHEL BANK STABILIZATION, AK CHIGNIK HARBOR, AK DILLINGHAM EMERGENCY BANK STABILIZATION FALSE PASS HARBOR, AK SEWARD HARBOR ST PAUL HARBOR, AK WRANGELL HARBOR,
POD POD POD POD POD POD POD POD MVD	1 1 1 1 1 1	AK AK AK AK AK AK AK AK	Projects with No Position and/or a Negative Executive Position  ALASKA COASTAL EROSION, AK BETHEL BANK STABILIZATION, AK CHIGNIK HARBOR, AK DILLINGHAM EMERGENCY BANK STABILIZATION FALSE PASS HARBOR, AK SEWARD HARBOR ST PAUL HARBOR, AK WRANGELL HARBOR, EAST AR ENTERPRISE COMMUNITY, AR
POD POD POD POD POD POD POD MVD SWD		AK AK AK AK AK AK AK AR	Projects with No Position and/or a Negative Executive Position  ALASKA COASTAL EROSION, AK BETHEL BANK STABILIZATION, AK CHIGNIK HARBOR, AK DILLINGHAM EMERGENCY BANK STABILIZATION FALSE PASS HARBOR, AK SEWARD HARBOR ST PAUL HARBOR, AK WRANGELL HARBOR, EAST AR ENTERPRISE COMMUNITY, AR FOURCHE BAYOU BASIN, LITTLE ROCK, AR
POD POD POD POD POD POD POD MVD SWD MVD		AK AK AK AK AK AK AK AR AR	Projects with No Position and/or a Negative Executive Position  ALASKA COASTAL EROSION, AK BETHEL BANK STABILIZATION, AK CHIGNIK HARBOR, AK DILLINGHAM EMERGENCY BANK STABILIZATION FALSE PASS HARBOR, AK SEWARD HARBOR ST PAUL HARBOR, AK WRANGELL HARBOR, EAST AR ENTERPRISE COMMUNITY, AR FOURCHE BAYOU BASIN, LITTLE ROCK, AR RED RIVER BELOW DENISON DAM, LA, AR & TX
POD POD POD POD POD POD SWD MVD SWD		AK AK AK AK AK AK AK AR AR AR	Projects with No Position and/or a Negative Executive Position  ALASKA COASTAL EROSION, AK BETHEL BANK STABILIZATION, AK CHIGNIK HARBOR, AK DILLINGHAM EMERGENCY BANK STABILIZATION FALSE PASS HARBOR, AK SEWARD HARBOR ST PAUL HARBOR, AK WRANGELL HARBOR, EAST AR ENTERPRISE COMMUNITY, AR FOURCHE BAYOU BASIN, LITTLE ROCK, AR RED RIVER BELOW DENISON DAM, LA, AR & TX WHITE RIVER MINIMUM FLOWS, AR
POD POD POD POD POD POD SWD MVD SWD SPD		AK AK AK AK AK AK AR AR AR AR	Projects with No Position and/or a Negative Executive Position  ALASKA COASTAL EROSION, AK BETHEL BANK STABILIZATION, AK CHIGNIK HARBOR, AK DILLINGHAM EMERGENCY BANK STABILIZATION FALSE PASS HARBOR, AK SEWARD HARBOR ST PAUL HARBOR, AK WRANGELL HARBOR, EAST AR ENTERPRISE COMMUNITY, AR FOURCHE BAYOU BASIN, LITTLE ROCK, AR RED RIVER BELOW DENISON DAM, LA, AR & TX WHITE RIVER MINIMUM FLOWS, AR RIO DE FLAG FLAGSTAFF, AZ
POD POD POD POD POD POD MVD SWD SWD SPD SPD		AK AK AK AK AK AK AR AR AR AR AR	Projects with No Position and/or a Negative Executive Position  ALASKA COASTAL EROSION, AK BETHEL BANK STABILIZATION, AK CHIGNIK HARBOR, AK DILLINGHAM EMERGENCY BANK STABILIZATION FALSE PASS HARBOR, AK SEWARD HARBOR ST PAUL HARBOR, AK WRANGELL HARBOR, EAST AR ENTERPRISE COMMUNITY, AR FOURCHE BAYOU BASIN, LITTLE ROCK, AR RED RIVER BELOW DENISON DAM, LA, AR & TX WHITE RIVER MINIMUM FLOWS, AR RIO DE FLAG FLAGSTAFF, AZ TRES RIOS, AZ
POD POD POD POD POD POD SWD SWD SPD SPD		AK AK AK AK AK AK AK AR AR AR AR AR AR AZ	Projects with No Position and/or a Negative Executive Position  ALASKA COASTAL EROSION, AK BETHEL BANK STABILIZATION, AK CHIGNIK HARBOR, AK DILLINGHAM EMERGENCY BANK STABILIZATION FALSE PASS HARBOR, AK SEWARD HARBOR ST PAUL HARBOR, AK WRANGELL HARBOR, EAST AR ENTERPRISE COMMUNITY, AR FOURCHE BAYOU BASIN, LITTLE ROCK, AR RED RIVER BELOW DENISON DAM, LA, AR & TX WHITE RIVER MINIMUM FLOWS, AR RIO DE FLAG FLAGSTAFF, AZ TRES RIOS, AZ TUCSON DRAINAGE AREA, AZ

I = No Position or Negative

**Table C-3: Additional Construction Projects, Continued** 

SPD	I	СА	HARBOR/SOUTH BAY WATER RECYCLING STUDY, LOS ANGELES, CA
SPD	ı	CA	IMPERIAL BEACH, SILVER STRAND SHORELINE, CA
SPD	ı	CA	LOS ANGELES HARBOR MAIN CHANNEL DEEPENING, CA
SPD	ı	CA	MERCED COUNTY STREAMS, CA
SPD	ı	CA	MURRIETA CREEK, CA
SPD	ı	CA	PLACER COUNTY SUB-REGIONAL WASTEWATER TREATMENT
SPD	ı	CA	PORT OF LONG BEACH (DEEPENING), CA
SPD	ı	CA	SACRAMENTO AREA, CA
SPD	ı	CA	SAN JOAQUIN RB, WEST STANISLAUS COUNTY, ORESTIMBA CREEK, CA
SPD	ı	CA	SANTA MARIA LEEVES, CA
SPD	ı	CA	SANTA MONICA BREAKWATER, CA
SPD	ı	CA	SURFSIDE - SUNSET - NEWPORT BEACH, CA
SPD	ı	CA	UPPER GUADALUPE RIVER, CA
SPD	ı	CA	WEST SACRAMENTO, CA
NWD	I	co	ZUNI AND SUN VALLEY REACHES, SOUTH PLATTE RIVER, CO
NAD	I	СТ	BRIDGEPORT
NAD	I	СТ	HARTFORD, CT
NAD	ı	СТ	NEW HAVEN
NAD	l I	DE	DELAWARE BAY COASTLINE, PT. MAHON, DE & NJ
NAD	I	DE	DELAWARE BAY COASTLINE, ROOSEVELT INLET TO LEWES BEACH, DE
NAD	I	DE	DELAWARE BAY, BROADKILL, DE
NAD	I	DE	DELAWARE BAY, OAKWOOD, DE
SAD	I	FL	BREVARD COUNTY, FL
SAD	I	FL	DAYTONA BEACH SHORES, FL
SAD	I	FL	DUVAL COUNTY, FL
SAD	I	FL	FORT PIERCE BEACH, FL
SAD	I	FL	MANATEE HARBOR, FL
SAD	I	FL	MARTIN COUNTY, FL
SAD	I	FL	NASSAU COUNTY, FL
SAD	I	FL	OKEECHOBEE WATERWAY, FL
SAD	I	FL	PALM BEACH COUNTY, FL
SAD	I	FL	PINELLAS COUNTY, FL
SAD	I	FL	PONCE DE LEON INLET, FL
SAD	I	FL	PORT SUTTON CHANNEL, FL
SAD	I	FL	TAMPA HARBOR, ALAFIA RIVER, FL
SAD	I	FL	TAMPA HARBOR, BIG BEND, FL
SAD	I	GA	NEW SAVANNAH BLUFF LOCK AND DAM, GA & SC
POD	I	HI	HAWAII WATER MANAGEMENT, HI
MVD	I	IA	DAVENPORT, IA
NWD	I	ID	RURAL IDAHO, ID

I = No Position or Negative

**Table C-3: Additional Construction Projects, Continued** 

LRD	l 1	IL	COOK COUNTY, IL
LRD	I	IL	DES PLAINES WETLANDS DEMONSTRATION PROJECT, IL
MVD	ı	IL	EAST ST. LOUIS AND VICINITY, IL
MVD	ı	IL	MADISON AND ST. CLAIR COUNTIES, IL
MVD	ı	IL	NUTWOOD DRAINAGE & LEVEE DISTRICT, IL
LRD	ı	IL	OHIO RIVER SE ILLINOIS
LRD	I	IL	THORTON RESERVOIR, IL
LRD	ı	IN	BROOKVILLE LAKE, IN
LRD	ı	IN	CALUMET REGION, IN
LRD	ı	IN	CITY OF INDIANAPOLIS
LRD	ı	IN	INDIANA SHORELINE EROSION, IN
LRD	ı	IN	LAKE MICHIGAN WATERFRONT, IN
LRD	ı	IN	OHIO RIVER FLOOD PROTECTION
LRD	ı	KY	KENTUCKY RIVER LOCK AND DAM 10
LRD	ı	KY	LEVISA AND TUG FORKS AND UPPER CUMBERLAND RIVER, WV, VA & KY
LRD	ı	KY	SOUTHERN AND EASTERN KENTUCKY
MVD	ı	LA	ASCENSION PARISH ENVIRONMENTAL INFRASTRUCTURE
MVD	ı	LA	CALCASIEU RIVER AND PASS, LA
MVD	ı	LA	EAST BATON ROUGE (CREDIT CHANGE), LA
MVD	ı	LA	IBERIA PARISH, LA ENVIRONMENTAL INFRASTRUCTURE
MVD	ı	LA	LIVINGSTON PARISH ENVIRONMENTAL INFRASTRUCTURE
MVD	ı	LA	OUACHITA RIVER LEVEES, LA
MVD	ı	LA	RED RIVER EMERGENCY BANK PROTECTION, LA
NAD	ı	MA	FALL RIVER AND NEW BEDFORD
NAD	ı	MD	CHESAPEAKE BAY ENV RESTORATION AND PROTECTION, MD, VA & PA
NAD	ı	MD	CUMBERLAND, MD AND RIDGELEY, WV
NAD	ı	MD	SMITH ISLAND ENVIRONMENTAL RESTORATION, MD
LRD	ı	MI	GENESEE COUNTY, MI
MVD	ı	МО	BOIS BRULE, MO
MVD	ı	МО	CAPE GIRARDEAU (FLOODWALL), MO
MVD	ı	МО	MERAMEC RIVER BASIN, VALLEY PARK LEVEE, MO
MVD	ı	МО	ST. LOUIS, MO (CSO)
MVD	ı	MS	SECTION 592, MISSISSIPPI ENVIRONMENTAL INFRASTRUCTURE, MS
NWD	ı	МТ	FT PECK DAM AND LAKE, MT
NWD	ı	МТ	RURAL MONTANTA, MT
SAD	ı	NC	CAROLINA BEACH AND VICINITY, NC
SAD	ı	NC	DARE COUNTY BEACHES, NC
SAD	ı	NC	WRIGHTSVILLE BEACH, NC
MVD	ı	ND	GRAFTON, PARK RIVER, ND
NAD	I	NJ	CAPE MAY INLET TO LOWER TOWNSHIP, NJ

I = No Position or Negative F = Favorable Position

**Table C-3: Additional Construction Projects, Continued** 

NAD	1	NJ	GREAT EGG HARBOR INLET AND PECK BEACH, NJ
NAD	1	NJ	GREAT EGG HARBOR INLET TO TOWNSEND INLET, NJ
NAD	1	NJ	MANASQUAN INLET TO BARNEGAT INLET, NJ
NAD	1	NJ	PASSAIC RIVER BASIN FLOOD MANAGEMENT, NJ
SPD	1	NM	ALBUQUERQUE LEVEES
SPD	1	NV	RURAL NEVADA
SPD	1	NV	SEC 595, ENVIRON INFRASTRUCTURE PROGRAM, NV / UT
SPD	1	NV	TAHOE BASIN RESTORATION, NV
LRD	1	NY	ONONDAGA LAKE, NY
NAD	1	NY	RARITAN BAY AND SANDY HOOK BAY, NJ
NAD	1	NY	UPPER SUSQUEHANNA RIVER BASIN ENVIRON REST, COOPERSTOWN, NY
LRD	1	ОН	OHIO ENV INFRASTRUCTURE (SEC 594)
LRD	1	ОН	OTTAWA RIVER HARBOR, OH
SWD	1	ОК	LAWTON, OK
SWD	1	ОК	YUKON, OK
NAD	1	PA	LACKAWANNA RIVER, SCRANTON, PA
LRD	1	PA	PRESQUE ISLE PENINSULA, PA (PERMANENT)
LRD	1	PA	SOUTH CENTRAL PA ENVIRONMENTAL IMPROVEMENT PROGRAM, PA
LRD	1	PA	THREE RIVERS WET WEATHER DEMO PROGRAM, PA
NAD	1	RI	WOONSOCKET
SAD	1	sc	FOLLY BEACH, SC
NWD	1	SD	MISSOURI RIVER RESTORATION, SD
LRD	1	TN	BLACK FOX, MURFREE AND OAKLANDS SPRINGS WETLANDS
MVD	1	TN	SHELBY COUNTY, TN
SWD	1	TX	CENTRAL CITY, FORT WORTH, UPPER TRINITY RIVER BASIN, TX
SWD	1	TX	CORPUS CHRISTI SHIP CHANNEL, TX
SWD	1	TX	DALLAS FLOODWAY EXTENSION
SWD	1	TX	FREEPORT HARBOR, TX
SWD	1	TX	JOHNSON CREEK, TX
NAD	1	VA	AIWW, BRIDGES AT DEEP CREEK, VA
SAD	1	VA	AIWW, NORFOLK, VA TO ST JOHNS RIVER, FL, GA, SC, NC & VA
LRD	1	VA	EASTERN SHORE AND SOUTHWEST VIRGINIA, VA
NAD	1	VA	JAMES RIVER CHANNEL, VA
NAD	1	VA	NORFORK HARBOR AND CHANNELS, CRANEY ISLAND, VA
NAD	1	VA	RICHMOND, VA (COMBINED SEWER OVERFLOW)
NWD	1	WA	PUGET SOUND AND ADJACENT WATERS RESTORATION, WA
NWD	1	WA	SHOALWATER, WA
MVD	1	WI	ST CROIX FALLS SEWAGE TREATMENT PLANT, WI
LRD	1	WV	ISLAND CREEK BASIN IN AND AROUND LOGAN, WEST VIRGINIA
LRD	1	WV	LOWER MUD RIVER, MILTON, WV

I = No Position or Negative F = Favorable Position

**Table C-4: Continuing Authority Program Projects** 

CAP Section	CAP Project Name	MSC
14	14 OLD FORT NIAGARA, YOUNGSTOWN, NY	LRD
14	27TH STREET BRIDGE, GLENWOOD SPRINGS, CO	SPD
14	AITKIN COUNTY STATE AID HIGHWAY 10, MN	MVD
14	ALISO COASTAL TREATMENT PLANT, LAGUNA BEACH, CA	SPD
14	ALLEN CREEK SW OF MAGNOLIA, IA	NWD
14	ARGOSY ROAD BRIDGE, RIVERSIDE, MO	NWD
14	BAKER CANAL, BAKER, EAST BATON ROUGE PARISH, LA	MVD
14	BARNES CO., KATHRYN, ND	MVD
14	BATESVILLE WASTEWATER TREATMENT PLANT, WHITE RIVER, AR	SWD
14	BAYOU MACON, POVERTY POINT, LA	MVD
14	BEAR CREEK, ROLAND, STORY CO., IA	MVD
14	BEAVER CK WASTEWATER TREATMENT PLANT, GREENE CO	LRD
14	BELPRE, OH SEWER AND WATERLINE PROTECTION	LRD
14	BIG BLUE RIVER, SEWARD COUNTY, NE	NWD
14	BIG SIOUX RIVER, AKRON, IA	NWD
14	BRECKSVILLE, OH	LRD
14	BRITTON ROAD BRIDGE, JONES, OK	SWD
14	BRUSH CREEK, MONROE COUNTY, MO	MVD
14	CANADAWAY SEWERLINE	LRD
14	CAP PROJECT, AUGUSTA, AR	MVD
14	CAP PROJECT, FINLEY, TN	MVD
14	CAP PROJECT, GERMANTOWN, LATERAL D, TN	MVD
14	CASS LAKE, LEECH LAKE TRIBE	MVD
14	CAULKS CREEK, ST. LOUIS COUNTY, MO	MVD
14	CHEFORNAK BANK PROT	POD
14	CHIPPEWA RIVER, BIG BEND LUTHERAN CHURCH	MVD
14	CITY OF BLUFFTON, WELLS CO (SEC 14)	LRD
14	CITY OF PANORA, RACOON RIVER, IA	MVD
14	CLEAR CREEK, WARREN COUNTY, MS	MVD
14	COAL CREEK, ALBIA, MONROE CO., IA	MVD
14	COLORADO RIVER AT CALDWELL LANE, TRAVIS CO., TX	SWD
14	CONWAY, CROWS RUN, PA	LRD
14	COUNTRY RIVER 400 BRIDGE, NODAWAY RIVER	NWD
14	COUNTY ROAD 228 BRIDGE, HUBBLE CREEK, MO	MVD
14	CROOKED CREEK, MADISON, IN	LRD
14	CUYAHOGA RIVER, BATH ROAD	LRD
14	DEERFIELD TOWNSHIP, WARREN CO	LRD
14	DEERING STREAMBANK PROTECTION, AK	POD
14	DELAVAL BULKHEAD, HUDSON RIVER, POUGHKEEPSIE, NY	NAD

**Table C-4: Continuing Authority Program Projects** 

14	DES MOINES RVR, KEOSAUGUA, VAN BURNE CO., IA	MVD
14	DITTO LANDING, PHASE II, HUNTSVILLE, AL	LRD
14	DUNKARD CREEK, BLACKVILLE, PA	LRD
14	EAST FORK BIG CREEK, BETHANY, MO	NWD
14	EAST LIVERPOOL, OH	LRD
14	EAST POINT, NJ	NAD
14	EAST VALLEY CREEK, ANDOVER	LRD
14	ELIZABETH RIVER, VALLEYVIEW ROAD, HILLSIDE, NJ	NAD
14	ELK RIVER, SHERBURNE CO.	MVD
14	ELKHORN RIVER, SCRIBNER, NE	NWD
14	EMERGENCY SHORELINE PROTECTION, NELSON LAGOON, AK	POD
14	EUBANKS CREEK, JACKSON, MS	MVD
14	FOURCHE CREEK SEWER MAIN	SWD
14	FOX RIVER, KAHOKA, MO	MVD
14	FROG TOWN ROAD, BAILEYS HARBOR, WI	LRD
14	FT. ABERCROMBIE, ND	MVD
14	GENESEE RIVER, SR 19, AMITY NY	LRD
14	GENESEE RIVER, SR 19, BELFAST NY	LRD
14	GENTRYVILLE BRIDGE, GRAND RIVER	NWD
14	GOLDEN EAGLE BANK EROSION	NWD
14	GRAND RIVER (NOWS), GRAND HAVEN, MI	LRD
14	GRAYCLIFF HOUSE, EVANS, NY	LRD
14	HAUULA HWY, OAHU, HI	POD
14	HAVASUPAI EROSION CONTROL	SPD
14	HIGHWAY 1185, SITE #2, AVOYELLES PARISH, LA	MVD
14	HIGHWAY 164 BRIDGE, LITTLE PINEY CREEK, HAGARVILLE, AR	SWD
14	HODGENVILLE, KY	LRD
14	HOLMES BAY [STATE HIGHWAY RTE 191], WHITING, ME	NAD
14	HUDSON RIVER, DUTCHESS COUNTY, NY	NAD
14	HWY 237, SULPHUR RIVER, MILL COUNTY, AR	MVD
14	HWY 71 BRIDGE, SULPHUR RIVER, DODDRIDGE, AR	MVD
14	IA RVR, IA CITY, JOHNSON CO., IA	MVD
14	IA RVR, SAC & FOX SETTLEMENT, TAMA COUNTY, IA	MVD
14	KAAAWA HWY, OAHU, HI	POD
14	KANAWHA RIVER, CHARLESTON, WV (MAGIC ISLAND TO PATRICK STREE	LRD
14	KENOSHA HARBOR, RETAINING WALL, KENOSHA, WI	LRD
14	KEUKA LAKE, HAMMONDSPORT	LRD
14	KINNICKINNIC RIVER STORM SEWER, MILWAUKEE COUNTY, WI	LRD
14	KWETHLUK, AK	POD

**Table C-4: Continuing Authority Program Projects** 

14	LAKE MCBRIDE JOHNSON CO, IA	MVD
14	LAKE ONTARIO ALBION WATER	LRD
14	LAUNIUPOKO, MAUI, HI	POD
14	LENOIR CITY, LEE DRIVE,TN	LRD
14	LIDY'S CREEK, CENTER STREET, PA	NAD
14	LONG ISLAND SOUND, NY	NAD
14	LOOSEE PARK, TARRYTOWN, NY	NAD
14	LOUISIANA STATE HIGHWAY 75, IBERVILLE PARISH, LA	MVD
14	MCBAINE LEVEE, COLUMBIA MO	NWD
14	MINNESOTA RIVER, SHAKOPEE, MN	MVD
14	MONONGAHELA RIVER, W. ELIZABETH, PA	LRD
14	MOSEL, SHEBOYGAN COUNTY, WI	LRD
14	MOUNT HOLLY, NJ (N. BRANCH RANCOCAS CREEK)	NAD
14	MT. MORIAH CULVERT SECT 14	MVD
14	MT. PLEASANT AVE., MALAPARDIS BROOK, HANOVER, NJ	NAD
14	NAPAKIAK, AK	POD
14	NEW CASTLE, PA (NESHANNOCK CREEK)	LRD
14	NISHNABOTNA RIVER, IA	NWD
14	NOKOMIS RD, TEN MILE CREEK, LANCASTER, TX	SWD
14	NORTH CONVENTRY, PA (ALONG SCHUYLKILL RIVER)	NAD
14	NORTH PARK	LRD
14	NORTH RACCOON RIVER PERRY, IA	MVD
14	NORTH SHORE DRIVE, SOUTH BEND, IN	LRD
14	NORTH SKUNK RIVER, POWESHIEK COUNTY, IA	MVD
14	OAKLAND SEWAGE FACILITY, TN	MVD
14	OH RIVER, RICHLAND PA, SEC 14	LRD
14	OHIO RIVER, HUNTINGTON, WV SEVENTH STREET WEST SEC 14	LRD
14	OHIO RIVER, HUNTINGTON, WV STAUNTON AVENUE SEC 14	LRD
14	ORIENT HARBOR, SOUTHHOLD, NY	NAD
14	PARTRIDGE BROOK, WESTMORELAND, NH	NAD
14	PATUXENT RIVER, PATUXENT BEACH ROAD, MD	NAD
14	PEPPER'S FERRY RWTR, RADFORD, VA SEC 14	LRD
14	PLATTE CITY SEWER, PLATTE CITY, MO	NWD
14	PLATTE RIVER BRIDGE, CONCEPTION, MO	NWD
14	PLEASANT POINT, PERRY, ME	NAD
14	POUGHKEEPSKIE,NY (SEC 14)	NAD
14	PRIDE PORT HUDSON ROAD, COMITE RIVER, LA	MVD
14	PUNALUU HWY, OAHU, HI	POD
14	QUODDY NARROWS, SOUTH LUBEC ROAD, LUBEC, ME	NAD

**Table C-4: Continuing Authority Program Projects** 

14	RANSOM CREEK, HOPKINS ROAD, AMHERST, NY	LRD
14	RED DUCK - NINETH STREET, KY #14	MVD
14	RED LAKE RIVER, MN	MVD
14	RED RIVER OF THE NORTH, FARGO PUBLIC FACILITIES, ND	MVD
14	RICHFORD WATER SUPPLY, VT	NAD
14	RIO PUERCO R, I-40 BRIDGE, GALLUP, NM	SPD
14	ROCKY BRANCH, SC	SAD
14	ROUTE YY, WORTH COUNTY, MO	NWD
14	RUMSON BULKHEAD, NJ	NAD
14	SALAMANCA, NY	LRD
14	SALT RIVER, KNOX COUNTY, MO	MVD
14	SAND COVE PARK, SACRAMENTO RIVER, CA	SPD
14	SAND HILL BRIDGE, MEDICINE CREEK, GRUNDY CO., MO	NWD
14	SARTELL, MN	MVD
14	SCARBOROUGH PARK, BRIAR CLIFF, NY	NAD
14	SEC 14 LINCOLN BOROUGH, PA	LRD
14	SEWARD, AK	POD
14	SHEFFIELD PARK, SHEFFIELD, AL	LRD
14	SHISHMAREF STREAMBANK PROTECTION	POD
14	SHOTWELL CREEK, ST. LOUIS COUNTY, MO	MVD
14	SKUNA RIVER, CALHOUN COUNTY, MS	MVD
14	SOUTH BRANCH,RAHWAY RIVER,WOODBRIDGE,NJ	NAD
14	SOUTH FORK CLEAR CREEK, ROUTE FF, MARYVILLE, MO	NWD
14	SOUTH HARRISON CO., WATER CORP., IN	LRD
14	SOUTH HARRISON COUNTY, IN	LRD
14	SOUTHERN UNIVERSITY, CAMPUS ROAD, BATON ROUGE, LA	MVD
14	SPRINGDALE CREEK SPRINGDALE CEMETARY PEORIA IL	MVD
14	ST JOHNS LANDFILL, OR	NWD
14	ST. CLOUD, MN	MVD
14	STATE HWY 7 BRIDGE, POMME DE TERRE RIVER, APPLETON, MN	MVD
14	STAYTON RIVERFRONT PARK, OR BANK STABILIZATION	NWD
14	STRANGER CREEK AT K-32, KS	NWD
14	TERMINAL ROAD, CHATTANOOGA, TN	LRD
14	THIEME DRIVE, FORT WAYNE, IN	LRD
14	THLOPTHLOCCO TRIBE, OK	SWD
14	TONAWANDA CREEK, LOCKWOOD, NIAGARA COUNTY	LRD
14	TONAWANDA CREEK, NEWSTEAD	LRD
14	TONAWANDA CREEK, RIDDLE ROAD, NY	LRD
14	TONAWANDA CREEK, TONAWANDA CREEK RD., AMHERST	LRD

**Table C-4: Continuing Authority Program Projects** 

14	TOWN OF WELLS, NY	NAD
14	TUCKER ROAD, COMITE RIVER, LA	MVD
14	TURTLE CREEK, REDFIELD, SD	NWD
14	TUSCARAWAS CO RD 1, (JOHNSON HILL), OH	LRD
14	U.S. HIGHWAY 71 BRIDGE, RED RIVER, OGDEN, AR	SWD
14	VILLIAGE OF NORTHPORT, NY	NAD
14	WALKER LANE, WASHINGTON, WV SECTION 14	LRD
14	WALLKILL RIVER, RIVER ROAD, ROSENDALE, NY	NAD
14	WALNUT BOTTOM RUN, ING-RICH ROAD, BEAVER FALLS, PA	LRD
14	WASTEWATER PLANT, PERKINS, OK	SWD
14	WATER TREATMENT PLANT, INTAKE CHANNEL, SEGUIN, TX	SWD
14	WATER TREATMENT PLANT, ST JOSEPH, MI	LRD
14	WEST FORK MEDICINE CREEK, GALT BRIDGE, MO	NWD
14	WEST MADISON UTILITY DISTRICT, FLORA, MS	MVD
14	WESTFIELD RIVER, AGAWAM, MA	NAD
14	WESTFIELD RIVER, OLD RTE 9, CUMMINGTON, MA	NAD
14	WESTON, WV (US RT 19 S)	LRD
14	WHITE RIVER, AUGUSTA, AR	SWD
14	WILLOW CREEK NE OF MAGNOLIA, IA	NWD
14	WILLOW CREEK NW OF WOODBINE, IA	NWD

CAP Section	CAP Project Name	DIS
103	BAY FARM ISLAND DIKE, CALIFORNIA	SPD
103	BAYOU TECHE SHORELINE EROSION RESTORATION, ST. MARY PARISH,A	MVD
103	BERIO-RIKERS CORRECTIONAL FACILITY	NAD
103	CLIFF DRIVE, CAPITOLA, CA	SPD
103	COASTAL AREAS, MARSHFIELD, MA	NAD
103	COCKSPUR ISL LIGHTHOUSE-SH PROT	SAD
103	CONQUEST PRESERVE, QUEEN ANNE'S COUNTY, MD	NAD
103	CRESCENT BEACH, NY	NAD
103	F-1 FUEL PIER, GUAM	POD
103	FORT SAN GERONIMO, PR	SAD
103	FRANKLIN POINT PARK, ANNE ARUNDEL COUNTY, MD	NAD
103	GOLETA BEACH, CITY OF GOLETA, CA	SPD
103	HIGHWAY 102, MAYAQUEZ, PR	SAD
103	HUDSON RIVER, DUTCHESS COUNTY, NY	NAD
103	INARAJAN SHORE PROTECTION, GUAM	POD
103	LAKE ERIE AT OLD LAKESHORE RD, HAMBURG, NY	LRD

**Table C-4: Continuing Authority Program Projects** 

103	LAKE ERIE AT PAINESVILLE	LRD
103	LAKE ERIE ATHOL SPRINGS, NY	LRD
103	LASALLE PARK, BUFFALO, NY	LRD
103	LELOALOA SHORE PROTECTION, AMERICAN SAMOA	POD
103	LINCOLN PARK BEACH SEATTLE	NWD
103	MAYO BEACH PARK, ANNE ARUNDEL COUNTY, MD	NAD
103	MORRIS ISLAND LIGHTHOUSE, ATLANTIC OCEAN, SC	SAD
103	NANTASKET BEACH, HULL, MA	NAD
103	NOME SHORELINE PROTECTION	POD
103	OAKWOOD BEACH, STATEN ISLAND, NY	NAD
103	PHILADELPHIA SHIPYARD, PA	NAD
103	PISMO BEACH, CA	SPD
103	PLEASURE ISLAND, BALTIMORE COUNTY, MD	NAD
103	POINT HOPE, AK	POD
103	PROSPECT BEACH, WEST HAVEN, CT	NAD
103	SEC 103, CAP SEASIDE, OR	NWD
103	SHAKTOOLIK SHORELINE PROTECTION, SHAKTOOLIK, AK	POD
103	SHELTER ISLAND, NY	NAD
103	ST. MARY'S RIVER, ST. MARY'S COUNTY, MD	NAD
103	SYLVAN BEACH BREAKWATER	LRD
103	TALOFOFO BEACH PARK SHORELINE PROTECTION, GUAM	POD
103	TARPON SPRINGS, FL	SAD
103	UMATAC BAY SHORELINE PROTECTION, GUAM	POD
103	UNALAKLEET STORM DAMAGE REDUCTION, UNALAKLEET, AK	POD
103	VETERAN'S DRIVE SHORELINE, ST.THOMAS, U.S.V.I.	SAD
103	WEST HAVEN BEACHES CT	NAD
103	WOODMONT BEACH, CT	NAD

CAP Section	CAP Project Name	DIS
107	APRA SMALL BOAT HARBOR, GUAM	POD
107	ARKANSAS RIVER, RUSSELLVILLE HARBOR, AR	SWD
107	AUASI SMALL BOAT HARBOR, AMERICAN SAMOA	POD
107	AUNUU SMALL BOAT HARBOR, AMERICAN SAMOA	POD
107	BARTON RIVERFRONT PARK, TENNESSEE RIVER, SHOALS, AL	LRD
107	BASS HARBOR, TREMONT, ME	NAD
107	BAYOU BERNARD INDUSTRIAL SEAWAY, HARRISON, CO, MS	SAD
107	BAYOU DULARGE,TERREBONNE PARISH, LA	MVD
107	BELFORD HBR	NAD
107	BLACKWATER RIVER, HAMPTON HARBOR, NH	NAD

**Table C-4: Continuing Authority Program Projects** 

107   BRUNSWICK HARBOR IMPROVEMENTS, GA   SAD   107   BUCKS HARBOR, MACHIASPORT, ME   NAD   107   CAMERON OIL PORT, CAMERON PARISH, LA   MVD   107   CHARLESTOWN BREACHWAY & NINIGRET POND, CHARLESTOWN, RI   NAD   107   CHARLESTOWN BREACHWAY & NINIGRET POND, CHARLESTOWN, RI   NAD   107   CCHEFORNAK NAVIGATION IMPROVEMENTS, CHEFORNAK, AK   POD   107   COUD BAY NAVIGATION IMPROVEMENTS   POD   107   COOS BAY TURNING BASIN, OR   NWD   107   COREA HARBOR, GOULDSBORD, ME   NAD   107   EAST BOAT BASIN, SANDWICH, MA   NAD   107   ELIM NAVIGATION IMPROVEMENTS, ELIM, AK   POD   107   FAIRLESS HILLS, PA (TURNING BASIN DEEPENING)   NAD   107   FISHERMANS COVE, NORFOLK, VA   NAD   107   GRAND MARAIS, MN   LRD   GRAND MARAIS, MN   LRD   GRAND PORTAGE HARBOR, MN   LRD   GRAND PORTAGE HARBOR, MN   LRD   GRAND PORTAGE HARBOR, MN   LRD   107   GUSTAVUS NAVIGATION IMPROVEMENTS, IGIUGIG, AK   POD   107   KAHOVLAWE SMALL BOAT HARBOR, HI   LRD   MACKINAC ISLAND HARBOR BREAKWATER, MI   LRD   NAD	407	DI VILIEVILLE LIADDOD, AD	I MVD I
107   BUCKS HARBOR, MACHIASPORT, ME	107	BLYTHEVILLE HARBOR, AR	MVD
107 CAMERON OIL PORT, CAMERON PARISH, LA  107 CHARENTON DRAINAGE AND NAVIGATION CANAL, LA  107 CHARLESTOWN BREACHWAY & NINIGRET POND, CHARLESTOWN, RI  107 CHEFORNAK NAVIGATION IMPROVEMENTS, CHEFORNAK, AK  POD  107 COLD BAY NAVIGATION IMPROVEMENTS  107 COOS BAY TURNING BASIN, OR  107 COREA HARBOR, GOULDSBORO, ME  107 DOUGLAS HARBOR, AK  POD  107 EAST BOAT BASIN, SANDWICH, MA  107 EAST TWO RIVER, TOWER, MN  107 FAIRLESS HILLS, PA (TURNING BASIN DEEPENING)  107 FAIRLESS HILLS, PA (TURNING BASIN DEEPENING)  107 GRAND MARAIS, MN  107 GRAND MARAIS, MN  107 GRAND MARAIS, MN  107 GRAND MARAIS, MN  107 GRAND PORTAGE HARBOR, MN  107 GUSTAVUS NAVIGATION IMPROVEMENTS, IGIUGIG, AK  POD  107 KAHOULAWS MAVIGATION IMPROVEMENTS, IGIUGIG, AK  POD  107 KAHOULAWS MAVIGATION IMPROVEMENTS, IGIUGIG, AK  POD  107 KAHOULAWS MAVIGATION IMPROVEMENTS, IGIUGIG, AK  POD  107 KAHOULAWS MALIS OAT HARBOR, HI  POD  107 KOKHANOK HARBOR, AN  107 KOKHANOK HARBOR, AN  107 NAD  108 KOKHANOK HARBOR, AN  109 NAD  100 NANTICOKE HARBOR, MD  101 NANTICOKE HARBOR, MD  102 NANWALEK NAVIGATION IMPROVEMENTS, AK  POD  104 NANWALEK NAVIGATION IMPROVEMENTS, AK  POD  106 NANTICOKE HARBOR, MD  107 NANWALEK NAVIGATION IMPROVEMENTS, AK  POD  108 NANTICOKE HARBOR, MD  NAND  109 NANWALEK NAVIGATION IMPROVEMENTS, AK  POD  107 NANTICOKE HARBOR, MD  NAND  108 NANWALEK NAVIGATION IMPROVEMENTS, AK  POD  109 NORTHERN MICHIGAN COLLEGE, TRAVERSE CITY, MI  NORTHERN MICHIGAN COLLEGE.		-	
107 CHARENTON DRAINAGE AND NAVIGATION CANAL, LA 107 CHARLESTOWN BREACHWAY & NINIGRET POND, CHARLESTOWN, RI 107 CHEFORNAK NAVIGATION IMPROVEMENTS, CHEFORNAK, AK POD 107 COLD BAY NAVIGATION IMPROVEMENTS POD 107 COOS BAY TURNING BASIN, OR NWD 107 COREA HARBOR, GOULDSBORO, ME 107 DOUGLAS HARBOR, GOULDSBORO, ME 107 EAST BOAT BASIN, SANDWICH, MA 107 EAST TWO RIVER, TOWER, MN 107 EAST TWO RIVER, TOWER, MN 107 FAIRLESS HILLS, PA (TURNING BASIN DEEPENING) 107 FAIRLESS HILLS, PA (TURNING BASIN DEEPENING) 107 GALVESTON ISLAND HARBOR, GALVESTON, TX 107 GRAND MARAIS, MN 107 GRAND PORTAGE HARBOR, MN 107 GRAND PORTAGE HARBOR, MN 107 GRIVER, TOWER, MN 107 GRAND PORTAGE HARBOR, MN 107 GIJIGIG NAVIGATION IMPROVEMENTS, AK POD 107 IGIUGIG NAVIGATION IMPROVEMENTS, IGIUGIG, AK POD 107 KAHULUI SBH, MAUI, HI 000 POD 107 KAHULUI SBH, MAUI, HI 000 POD 107 KEYPORT HARBOR, NJ 107 KOKHANOK HARBOR, AK 107 LAKE STATE PARK, MILWAUKEE, WI 107 MACKINAC ISLAND HARBOR BREAKWATER, MI 107 NANWALEK NAVIGATION IMPROVEMENTS, AK POD 107 NANWALEK NAVIGATION IMPROVEMENTS, AK POD 107 KOKHANOK HARBOR, AK LRD 107 NANWALEK NAVIGATION IMPROVEMENTS, AK POD 107 KOKHANOK HARBOR, MD 107 NANWALEK NAVIGATION IMPROVEMENTS, MI 107 KOKHANOK HARBOR, MS 107 NASSAWADOX CREEK, NORTHAMPTON COUNTY, VA NAD 107 NANWALEK NAVIGATION IMPROVEMENTS, AK POD 107 NEW MADRID COUNTY HARBOR, MO 107 NEW MADRID COUNTY HARBOR, MO 107 NEW MADRID COUNTY HARBOR, MO 107 NEW MORTH KOHALA NAVIGATION, HI 107 NORTHERN MICHIGAN COLLEGE, TRAVERSE CITY, MI 107 NORTHERN MICHIGAN COLLEGE.			
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107         COLD BAY NAVIGATION IMPROVEMENTS         POD           107         COOS BAY TURNING BASIN, OR         NWD           107         COREA HARBOR, GOULDSBORO, ME         NAD           107         DOUGLAS HARBOR, AK         POD           107         EAST BOAT BASIN, SANDWICH, MA         NAD           107         EAST TWO RIVER, TOWER, MN         MVD           107         ELIM NAVIGATION IMPROVEMENTS, ELIM, AK         POD           107         FAIRLESS HILLS, PA (TURNING BASIN DEEPENING)         NAD           107         FAIRLESS HILLS, PA (TURNING BASIN DEEPENING)         NAD           107         FISHERMANS COVE, NORFOLK, VA         NAD           107         GALVESTON ISLAND HARBOR, GALVESTON, TX         SWD           107         GRAND MARAIS, MN         LRD           107         GRAND PORTAGE HARBOR, MN         LRD           107         GRAND PORTAGE HARBOR, MN         LRD           107         IGIUGIG NAVIGATION IMPROVEMENTS, AK         POD           107         KAHO'OLAWE SMALL BOAT HARBOR, HI         POD           107         KAHO'OLAWE SMALL BOAT HARBOR, HI         POD           107         KAHO'OLAWE SMALL BOAT HARBOR, HI         POD           107         KAHOLUI SBH, MAUI, HI			
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107 GALVESTON ISLAND HARBOR, GALVESTON, TX  108 GRAND MARAIS, MN  109 GRAND PORTAGE HARBOR, MN  100 GUSTAVUS NAVIGATION IMPROVEMENTS, AK  100 HILO LIGHT DRAFT, HAWAII, HI  101 IGIUGIG NAVIGATION IMPROVEMENTS, IGIUGIG, AK  102 KAHO'OLAWE SMALL BOAT HARBOR, HI  103 KAHULUI SBH, MAUI, HI 000  104 KEYPORT HARBOR, NJ  105 KOKHANOK HARBOR, AK  106 LAKE SHORE STATE PARK, MILWAUKEE, WI  107 MACKINAC ISLAND HARBOR BREAKWATER, MI  108 NANTICOKE HARBOR, MD  109 NANWALEK NAVIGATION IMPROVEMENTS, AK  100 NANWALEK NAVIGATION IMPROVEMENTS, AK  101 NASSAWADOX CREEK, NORTHAMPTON COUNTY, VA  102 NEW BOURBON REGIONAL PORT, MO  103 NEW BOURBON REGIONAL PORT, MO  104 NORTHERN MICHIGAN COLLEGE, TRAVERSE CITY, MI  105 NORTHERN MICHIGAN COLLEGE, TRAVERSE CITY, MI  107 NORTHWEST TENNESSEE REGIONAL HARBOR, LAKE COUNTY, TN  108 DD  109 NORTHWEST TENNESSEE REGIONAL HARBOR, LAKE COUNTY, TN  100 MVD			
107 GRAND MARAIS, MN 107 GRAND PORTAGE HARBOR, MN 107 GUSTAVUS NAVIGATION IMPROVEMENTS, AK 108 HILO LIGHT DRAFT, HAWAII, HI 109 IGIUGIG NAVIGATION IMPROVEMENTS, IGIUGIG, AK 100 KAHO'OLAWE SMALL BOAT HARBOR, HI 101 KAHULUI SBH, MAUI, HI 102 KOKHANOK HARBOR, NJ 103 KNIFE HARBOR, MN 104 KOKHANOK HARBOR, AK 105 LAKE SHORE STATE PARK, MILWAUKEE, WI 106 NANTICOKE HARBOR, MD 107 NANWALEK NAVIGATION IMPROVEMENTS, AK 108 NANWALEK NAVIGATION IMPROVEMENTS, AK 109 NASSAWADOX CREEK, NORTHAMPTON COUNTY, VA 100 NEW BOURBON REGIONAL PORT, MO 101 NEW MADRID COUNTY HARBOR, MO 102 NEW MADRID COUNTY HARBOR, MO 103 NEW MADRID COUNTY HARBOR, MO 104 NEW RIVER INLET, ONSLOW CO., NC 105 NORTH KOHALA NAVIGATION, HI 107 NORTHWEST TENNESSEE REGIONAL HARBOR, LAKE COUNTY, TN 108 MYD 109 NORTHWEST TENNESSEE REGIONAL HARBOR, LAKE COUNTY, TN 109 MYD 100 NORTHWEST TENNESSEE REGIONAL HARBOR, LAKE COUNTY, TN 107 MYD 107 NORTHWEST TENNESSEE REGIONAL HARBOR, LAKE COUNTY, TN 108 MYD 109 MYD 100 MYD 100 MYD 100 MYD 101 MYD 102 NORTHWEST TENNESSEE REGIONAL HARBOR, LAKE COUNTY, TN 107 MYD			
107 GRAND PORTAGE HARBOR, MN 107 GUSTAVUS NAVIGATION IMPROVEMENTS, AK 108 HILO LIGHT DRAFT, HAWAII, HI 109 IGIUGIG NAVIGATION IMPROVEMENTS, IGIUGIG, AK 107 KAHO'OLAWE SMALL BOAT HARBOR, HI 108 KAHULUI SBH, MAUI, HI 000 107 KEYPORT HARBOR, NJ 107 KNIFE HARBOR, MN 107 KOKHANOK HARBOR, AK 108 LAKE SHORE STATE PARK, MILWAUKEE, WI 109 MACKINAC ISLAND HARBOR BREAKWATER, MI 100 NANTICOKE HARBOR, MD 101 NANWALEK NAVIGATION IMPROVEMENTS, AK 100 NASSAWADOX CREEK, NORTHAMPTON COUNTY, VA 101 NEW BOURBON REGIONAL PORT, MO 102 NEW MADRID COUNTY HARBOR, MO 103 NEW MADRID COUNTY HARBOR, MO 104 NEW BOURBON REGIONAL PORT, MO 105 NEW MADRID COUNTY HARBOR, MO 106 NEW RIVER INLET, ONSLOW CO., NC 107 NORTH KOHALA NAVIGATION, HI 108 NORTHWEST TENNESSEE REGIONAL HARBOR, LAKE COUNTY, TN 109 MYD 100 NORTHWEST TENNESSEE REGIONAL HARBOR, LAKE COUNTY, TN	107	GALVESTON ISLAND HARBOR, GALVESTON, TX	SWD
107 GUSTAVUS NAVIGATION IMPROVEMENTS, AK 107 HILO LIGHT DRAFT, HAWAII, HI 107 IGIUGIG NAVIGATION IMPROVEMENTS, IGIUGIG, AK 107 KAHO'OLAWE SMALL BOAT HARBOR, HI 108 KAHULUI SBH, MAUI, HI 000 109 KEYPORT HARBOR, NJ 100 KOKHANOK HARBOR, AK 100 KOKHANOK HARBOR, AK 101 LAKE SHORE STATE PARK, MILWAUKEE, WI 101 MACKINAC ISLAND HARBOR BREAKWATER, MI 102 NANTICOKE HARBOR, MD 103 NANWALEK NAVIGATION IMPROVEMENTS, AK 104 NASSAWADOX CREEK, NORTHAMPTON COUNTY, VA 105 NEW BOURBON REGIONAL PORT, MO 106 NEW MADRID COUNTY HARBOR, MO 107 NEW MADRID COUNTY HARBOR, MO 108 NORTH KOHALA NAVIGATION, HI 109 NORTHERN MICHIGAN COLLEGE, TRAVERSE CITY, MI 100 NORTHWEST TENNESSEE REGIONAL HARBOR, LAKE COUNTY, TN 107 MYD 108 MYD 109 NORTHWEST TENNESSEE REGIONAL HARBOR, LAKE COUNTY, TN 109 MYD 100 NORTHWEST TENNESSEE REGIONAL HARBOR, LAKE COUNTY, TN 100 MYD 100 NORTHWEST TENNESSEE REGIONAL HARBOR, LAKE COUNTY, TN 100 MYD 100 MYD 100 MYD 101 NORTHWEST TENNESSEE REGIONAL HARBOR, LAKE COUNTY, TN 100 MYD 100 MYD 100 MYD 100 MYD 101 MYD 102 MYD 103 MYD 105 MYD 107 NORTHWEST TENNESSEE REGIONAL HARBOR, LAKE COUNTY, TN 108 MYD 109 MYD 100 MYD 100 MYD 100 MYD 101 MYD 102 MYD 103 MYD 104 MYD 105 MYD 107 MYD 108 MYD 109 MYD 109 MYD 109 MYD 109 MYD 100	107		LRD
107 HILO LIGHT DRAFT, HAWAII, HI 107 IGIUGIG NAVIGATION IMPROVEMENTS, IGIUGIG, AK 107 KAHO'OLAWE SMALL BOAT HARBOR, HI 108 POD 109 KAHULUI SBH, MAUI, HI 000 100 POD 100 KEYPORT HARBOR, NJ 100 KOKHANOK HARBOR, AK 101 LAKE SHORE STATE PARK, MILWAUKEE, WI 101 MACKINAC ISLAND HARBOR BREAKWATER, MI 102 NANTICOKE HARBOR, MD 103 NANWALEK NAVIGATION IMPROVEMENTS, AK 104 NASSAWADOX CREEK, NORTHAMPTON COUNTY, VA 105 NEW BOURBON REGIONAL PORT, MO 106 NEW MADRID COUNTY HARBOR, MO 107 NEW MADRID COUNTY HARBOR, MO 108 NORTH KOHALA NAVIGATION, HI 109 NORTH KOHALA NAVIGATION, HI 100 NORTHWEST TENNESSEE REGIONAL HARBOR, LAKE COUNTY, TN 100 MVD 101 NORTHWEST TENNESSEE REGIONAL HARBOR, LAKE COUNTY, TN 107 MVD	107	GRAND PORTAGE HARBOR, MN	LRD
107 IGIUGIG NAVIGATION IMPROVEMENTS, IGIUGIG, AK 107 KAHO'OLAWE SMALL BOAT HARBOR, HI 108 POD 109 KAHULUI SBH, MAUI, HI 000 POD 107 KEYPORT HARBOR, NJ NAD 107 KNIFE HARBOR, MN LRD 107 KOKHANOK HARBOR, AK POD 107 LAKE SHORE STATE PARK, MILWAUKEE, WI LRD 107 MACKINAC ISLAND HARBOR BREAKWATER, MI LRD 107 NANTICOKE HARBOR, MD NAD 107 NANWALEK NAVIGATION IMPROVEMENTS, AK POD 107 NASSAWADOX CREEK, NORTHAMPTON COUNTY, VA NAD 107 NEW BOURBON REGIONAL PORT, MO MVD 107 NEW MADRID COUNTY HARBOR, MO MVD 107 NEW RIVER INLET, ONSLOW CO., NC SAD 107 NORTH KOHALA NAVIGATION, HI POD 107 NORTHERN MICHIGAN COLLEGE, TRAVERSE CITY, MI NORTHWEST TENNESSEE REGIONAL HARBOR, LAKE COUNTY, TN MVD	107	GUSTAVUS NAVIGATION IMPROVEMENTS, AK	POD
107 KAHO'OLAWE SMALL BOAT HARBOR, HI 107 KAHULUI SBH, MAUI, HI 000 POD 107 KEYPORT HARBOR, NJ NAD 107 KNIFE HARBOR, MN LRD 107 KOKHANOK HARBOR, AK POD 107 LAKE SHORE STATE PARK, MILWAUKEE, WI LRD 107 MACKINAC ISLAND HARBOR BREAKWATER, MI LRD 107 NANTICOKE HARBOR, MD NAD 107 NANWALEK NAVIGATION IMPROVEMENTS, AK POD 107 NASSAWADOX CREEK, NORTHAMPTON COUNTY, VA NAD 107 NEW BOURBON REGIONAL PORT, MO MVD 107 NEW MADRID COUNTY HARBOR, MO MVD 107 NEW RIVER INLET, ONSLOW CO., NC SAD 107 NORTH KOHALA NAVIGATION, HI POD 107 NORTHERN MICHIGAN COLLEGE, TRAVERSE CITY, MI NORTHWEST TENNESSEE REGIONAL HARBOR, LAKE COUNTY, TN MVD	107	HILO LIGHT DRAFT, HAWAII, HI	POD
107         KAHULUI SBH, MAUI, HI 000         POD           107         KEYPORT HARBOR, NJ         NAD           107         KNIFE HARBOR, MN         LRD           107         KOKHANOK HARBOR, AK         POD           107         LAKE SHORE STATE PARK, MILWAUKEE, WI         LRD           107         MACKINAC ISLAND HARBOR BREAKWATER, MI         LRD           107         NANTICOKE HARBOR, MD         NAD           107         NANWALEK NAVIGATION IMPROVEMENTS, AK         POD           107         NASSAWADOX CREEK, NORTHAMPTON COUNTY, VA         NAD           107         NEW BOURBON REGIONAL PORT, MO         MVD           107         NEW MADRID COUNTY HARBOR, MO         MVD           107         NEW RIVER INLET, ONSLOW CO., NC         SAD           107         NORTH KOHALA NAVIGATION, HI         POD           107         NORTHERN MICHIGAN COLLEGE, TRAVERSE CITY, MI         LRD           107         NORTHWEST TENNESSEE REGIONAL HARBOR, LAKE COUNTY, TN         MVD	107	IGIUGIG NAVIGATION IMPROVEMENTS, IGIUGIG, AK	POD
107 KEYPORT HARBOR, NJ 107 KNIFE HARBOR, MN 107 KOKHANOK HARBOR, AK 107 LAKE SHORE STATE PARK, MILWAUKEE, WI 107 MACKINAC ISLAND HARBOR BREAKWATER, MI 107 NANTICOKE HARBOR, MD 107 NANWALEK NAVIGATION IMPROVEMENTS, AK 107 NASSAWADOX CREEK, NORTHAMPTON COUNTY, VA 107 NEW BOURBON REGIONAL PORT, MO 107 NEW MADRID COUNTY HARBOR, MO 107 NEW RIVER INLET, ONSLOW CO., NC 107 NORTH KOHALA NAVIGATION, HI 107 NORTHERN MICHIGAN COLLEGE, TRAVERSE CITY, MI 107 NORTHWEST TENNESSEE REGIONAL HARBOR, LAKE COUNTY, TN MVD	107	KAHO'OLAWE SMALL BOAT HARBOR, HI	POD
107 KNIFE HARBOR, MN 107 KOKHANOK HARBOR, AK 108 LAKE SHORE STATE PARK, MILWAUKEE, WI 109 MACKINAC ISLAND HARBOR BREAKWATER, MI 100 NANTICOKE HARBOR, MD 101 NANWALEK NAVIGATION IMPROVEMENTS, AK 100 NASSAWADOX CREEK, NORTHAMPTON COUNTY, VA 101 NEW BOURBON REGIONAL PORT, MO 102 NEW MADRID COUNTY HARBOR, MO 103 NEW RIVER INLET, ONSLOW CO., NC 104 NORTH KOHALA NAVIGATION, HI 105 NORTHERN MICHIGAN COLLEGE, TRAVERSE CITY, MI 106 NORTHWEST TENNESSEE REGIONAL HARBOR, LAKE COUNTY, TN 107 MVD 108 MVD 109 NORTHWEST TENNESSEE REGIONAL HARBOR, LAKE COUNTY, TN 100 MVD 101 MVD 107 NORTHWEST TENNESSEE REGIONAL HARBOR, LAKE COUNTY, TN 108 MVD 109 MVD 100 MVD 100 MVD 101 MVD 102 MORTHWEST TENNESSEE REGIONAL HARBOR, LAKE COUNTY, TN 108 MVD 109 MVD 109 MVD 100 MVD 100 MVD 100 MVD 101 MVD 102 MVD 103 MVD 105 MVD 107 MVD 108 MVD 109 MVD 109 MVD 109 MVD 100	107	KAHULUI SBH, MAUI, HI 000	POD
107 KOKHANOK HARBOR, AK 107 LAKE SHORE STATE PARK, MILWAUKEE, WI 107 MACKINAC ISLAND HARBOR BREAKWATER, MI 107 NANTICOKE HARBOR, MD 107 NANWALEK NAVIGATION IMPROVEMENTS, AK 107 NASSAWADOX CREEK, NORTHAMPTON COUNTY, VA 107 NEW BOURBON REGIONAL PORT, MO 107 NEW MADRID COUNTY HARBOR, MO 107 NEW RIVER INLET, ONSLOW CO., NC 107 NORTH KOHALA NAVIGATION, HI 107 NORTHERN MICHIGAN COLLEGE, TRAVERSE CITY, MI 107 NORTHWEST TENNESSEE REGIONAL HARBOR, LAKE COUNTY, TN MVD	107	KEYPORT HARBOR, NJ	NAD
107 LAKE SHORE STATE PARK, MILWAUKEE, WI 107 MACKINAC ISLAND HARBOR BREAKWATER, MI 107 NANTICOKE HARBOR, MD 107 NANWALEK NAVIGATION IMPROVEMENTS, AK 107 NASSAWADOX CREEK, NORTHAMPTON COUNTY, VA 107 NEW BOURBON REGIONAL PORT, MO 107 NEW MADRID COUNTY HARBOR, MO 107 NEW RIVER INLET, ONSLOW CO., NC 107 NORTH KOHALA NAVIGATION, HI 107 NORTHERN MICHIGAN COLLEGE, TRAVERSE CITY, MI 107 NORTHWEST TENNESSEE REGIONAL HARBOR, LAKE COUNTY, TN MVD	107	KNIFE HARBOR, MN	LRD
107 MACKINAC ISLAND HARBOR BREAKWATER, MI 107 NANTICOKE HARBOR, MD 107 NANWALEK NAVIGATION IMPROVEMENTS, AK 107 NASSAWADOX CREEK, NORTHAMPTON COUNTY, VA 107 NEW BOURBON REGIONAL PORT, MO 107 NEW MADRID COUNTY HARBOR, MO 107 NEW RIVER INLET, ONSLOW CO., NC 107 NORTH KOHALA NAVIGATION, HI 107 NORTHERN MICHIGAN COLLEGE, TRAVERSE CITY, MI 107 NORTHWEST TENNESSEE REGIONAL HARBOR, LAKE COUNTY, TN MVD	107	KOKHANOK HARBOR, AK	POD
107 NANTICOKE HARBOR, MD 107 NANWALEK NAVIGATION IMPROVEMENTS, AK 107 NASSAWADOX CREEK, NORTHAMPTON COUNTY, VA 107 NEW BOURBON REGIONAL PORT, MO 107 NEW MADRID COUNTY HARBOR, MO 107 NEW RIVER INLET, ONSLOW CO., NC 107 NORTH KOHALA NAVIGATION, HI 107 NORTHERN MICHIGAN COLLEGE, TRAVERSE CITY, MI 107 NORTHWEST TENNESSEE REGIONAL HARBOR, LAKE COUNTY, TN	107	LAKE SHORE STATE PARK, MILWAUKEE, WI	LRD
107 NANWALEK NAVIGATION IMPROVEMENTS, AK 107 NASSAWADOX CREEK, NORTHAMPTON COUNTY, VA 107 NEW BOURBON REGIONAL PORT, MO 107 NEW MADRID COUNTY HARBOR, MO 107 NEW RIVER INLET, ONSLOW CO., NC 107 NORTH KOHALA NAVIGATION, HI 107 NORTHERN MICHIGAN COLLEGE, TRAVERSE CITY, MI 107 NORTHWEST TENNESSEE REGIONAL HARBOR, LAKE COUNTY, TN MVD	107	MACKINAC ISLAND HARBOR BREAKWATER, MI	LRD
107 NASSAWADOX CREEK, NORTHAMPTON COUNTY, VA 107 NEW BOURBON REGIONAL PORT, MO 107 NEW MADRID COUNTY HARBOR, MO 107 NEW RIVER INLET, ONSLOW CO., NC 107 NORTH KOHALA NAVIGATION, HI 107 NORTHERN MICHIGAN COLLEGE, TRAVERSE CITY, MI 107 NORTHWEST TENNESSEE REGIONAL HARBOR, LAKE COUNTY, TN MVD	107	NANTICOKE HARBOR, MD	NAD
107 NEW BOURBON REGIONAL PORT, MO 107 NEW MADRID COUNTY HARBOR, MO 107 NEW RIVER INLET, ONSLOW CO., NC 107 NORTH KOHALA NAVIGATION, HI 107 NORTHERN MICHIGAN COLLEGE, TRAVERSE CITY, MI 107 NORTHWEST TENNESSEE REGIONAL HARBOR, LAKE COUNTY, TN MVD	107	NANWALEK NAVIGATION IMPROVEMENTS, AK	POD
107 NEW MADRID COUNTY HARBOR, MO 107 NEW RIVER INLET, ONSLOW CO., NC 107 NORTH KOHALA NAVIGATION, HI 107 NORTHERN MICHIGAN COLLEGE, TRAVERSE CITY, MI 107 NORTHWEST TENNESSEE REGIONAL HARBOR, LAKE COUNTY, TN MVD	107	NASSAWADOX CREEK, NORTHAMPTON COUNTY, VA	NAD
107 NEW RIVER INLET, ONSLOW CO., NC 107 NORTH KOHALA NAVIGATION, HI 107 NORTHERN MICHIGAN COLLEGE, TRAVERSE CITY, MI 107 NORTHWEST TENNESSEE REGIONAL HARBOR, LAKE COUNTY, TN MVD	107	NEW BOURBON REGIONAL PORT, MO	MVD
107 NORTH KOHALA NAVIGATION, HI 107 NORTHERN MICHIGAN COLLEGE, TRAVERSE CITY, MI 107 NORTHWEST TENNESSEE REGIONAL HARBOR, LAKE COUNTY, TN MVD	107	NEW MADRID COUNTY HARBOR, MO	MVD
107 NORTHERN MICHIGAN COLLEGE, TRAVERSE CITY, MI 107 NORTHWEST TENNESSEE REGIONAL HARBOR, LAKE COUNTY, TN MVD	107	NEW RIVER INLET, ONSLOW CO., NC	SAD
107 NORTHWEST TENNESSEE REGIONAL HARBOR, LAKE COUNTY, TN MVD	107	NORTH KOHALA NAVIGATION, HI	POD
	107	NORTHERN MICHIGAN COLLEGE, TRAVERSE CITY, MI	LRD
107 OAK BLUFES HARBOR OAK BLUFES MA	107	NORTHWEST TENNESSEE REGIONAL HARBOR, LAKE COUNTY, TN	MVD
TAD	107	OAK BLUFFS HARBOR, OAK BLUFFS, MA	NAD

**Table C-4: Continuing Authority Program Projects** 

107	OHIO RIVER, PROCTORVILLE, OH SEC 107	LRD
107	OLCOTT HARBOR, NEWFANE, NY	LRD
107	ONTONAGON RIVER, MI	LRD
107	OUTER COVE MARINA, CNMI	POD
107	OYSTER POINT MARINA	SPD
107	PEMISCOT COUNTY HARBOR, CARUTHERSVILLE, MO	MVD
107	POINT JUDITH HARBOR, NARRAGANSETT, RI	NAD
107	PORT FOURCHON EXTENSION, LAFOURCHE PARISH, LA	MVD
107	PORT GRAHAM NAVIGATION IMPROVEMENTS, CHEFORNAK, AK	POD
107	PORT HUENEME, CA	SPD
107	PORT ORFORD DREDGING, OR	NWD
107	RHODES POINT, MD	NAD
107	ROCKHOLD CREEK, MD	NAD
107	ROTA EAST HARBOR, CM	POD
107	ROUGE RIVER, MI	LRD
107	ROUND POND HARBOR, BRISTOL, ME	NAD
107	SALEM RIVER, NJ (CHANNEL DEEPENING)	NAD
107	SCHUYLKILL RIVER AT GIRARD POINT, NJ	NAD
107	SEWARD MARINE INDUSTRIAL CENTER NAVIGATION IMPROVEMENT, AK	POD
107	SHALLOTTE RIVER, BRUNSWICK COUNTY, NC	SAD
107	SHORT CUT CANAL DEEPEINING, TERREBONNE PARISH, LA	MVD
107	SKAMOKAWA CREEK SEC 107	NWD
107	SMALL NAVIGATION IMPROVEMENTS, ILIAMNA, AK	POD
107	ST LAWRENCE, AK	POD
107	ST. JEROME CREEK, ST. MARY'S COUNTY, MD	NAD
107	STARLINGS CREEK, TOWN OF SAXIS, ACCOMACK COUNTY, VA	NAD
107	TANGIER ISLAND JETTY, ACCOMACK COUNTY, VA	NAD
107	TANGIER ISLAND JETTY, ACCOMACK COUNTY, VA	NAD
107	TATITLEK, AK	POD
107	TELLER NAVIGATION IMPROVEMENTS, TELLER, AK	POD
107	TWO HARBORS, MN	LRD
107	WALNUT CREEK ACCESS AREA, ERIE COUNTY, PA	LRD
107	WALTER SLOUGH, DARE COUNTY, NC	SAD
107	WESTPORT, MA	NAD
107	WILLIAMSPORT, AK	POD
107	WOODS HOLE GREAT HARBOR, FALMOUTH, MA	NAD
107	WURTLAND, KY (NAVIGATION CHANNEL IMPROVEMENT)	LRD
107	YAZOO DIVERSION CANAL, WARREN COUNTY, MS	MVD

**Table C-4: Continuing Authority Program Projects** 

CAP Section	CAP Project Name	DIS
111	AGUADILLA COAST LINE SECT 111	SAD
111	BURNS HARBOR	LRD
111	CAMP ELLIS, SACO, MAINE	NAD
111	EAST PASS CHANNEL, PANAMA CITY, FL	SAD
111	FAIRPORT HARBOR, OH	LRD
111	MANISTEE HARBOR & RIVER CHANNEL, MI	LRD
111	MATTITUCK HARBOR,NY	NAD
111	MOBILE PASS, AL	SAD
111	PORT SANILAC HARBOR, MI	LRD
111	PRINCETON SHORELINE, CA	SPD
111	TYBEE ISLAND CHANNEL IMPACTS-111	SAD
111	VERMILLION, OH	LRD

CAP Section	CAP Project Name	DIS
204	21ST AVE WEST CHANNEL, DULUTH MINN	LRD
204	ATCHAFALAYA RIVER, SHELL ISLAND PASS, ST. MARY PARISH, LA	MVD
204	BARATARIA BAY WATERWAY, MILE 6.0 - 0.0, PLAQUEMINES PH, LA	MVD
204	BENEF. USE OF DREDGED MAT'L FROM FT. MIFFLIN,PA/HAZELTON,PA	NAD
204	BIRD ISLAND RESTORATION, MARION, MA	NAD
204	BLACKHAWK BOTTOMS, DES MOINES COUNTY, IA	MVD
204	CALCASIEU RIVER, MILE 5.0 - 14.0, CAMERON PARISH, LA	MVD
204	HENDERSON #3 HABITAT RESTORATION PROJECT	MVD
204	HOUMA NAVIGATION CANAL BARRIER ISLAND RESTORATION, LA	MVD
204	ISLE AUX HERBES	SAD
204	JAMAICA BAY, MARSH ISLANDS, NY	NAD
204	MAUMEE BAY HABITAT RESTORATION, OH	LRD
204	MRGO MILE -3 TO -9 MARSH RESTORATION, (2001), PLAQUEMINES PH	MVD
204	MRGO, MILE 11 TO 4 MARSH RESTORATION (2001), PLAQUEMINES PH	MVD
204	NEWBURYPORT HARBOR, MA	NAD
204	OTTAWA RIVER, OH	LRD
204	RESTORATION OF THE CAT ISLANDS CHAIN, WI	LRD
204	WANCHESE MARSH CREATION AND PROTECTION, NC	SAD
204	WYNN ROAD, OREGON, OH	LRD

**Table C-4: Continuing Authority Program Projects** 

CAP Section	CAP Project Name	DIS
205	ABERJONA RIVER, WINCHESTER, MA	NAD
205	ACID BROOK, POMPTON LAKES, NJ	NAD
205	AITKIN, MN	MVD
205	ALSAM ROAD, MOREHOUSE PARISH, LA	MVD
205	AMBERLEY CREEK, CINCINNATI, OH	LRD
205	ARCHEY FORK CREEK, CLINTON, AR	SWD
205	ARLINGTON, KY (SECTION 205)	MVD
205	ARROYO, PR	SAD
205	AUGUSTA COUNTY, VA	NAD
205	BACK RIVER, CHATHAM COUNTY, GA	SAD
205	BALDWIN CREEK, NORTH ROYALTON, OH	LRD
205	BANLICK CREEK, KENTON CO., KY	LRD
205	BATTLE MOUNTAIN, NV (SEC 205)	SPD
205	BAYOU CHOUPIQUE, ST. MARY PARISH, LA	MVD
205	BAYOU QUEUE DE TORTUE, VERMILION PARISH, LA	MVD
205	BEAVER CREEK & TRIBS, BRISTOL, TN	LRD
205	BEAVER CREEK, FRENCHBURG, KY	LRD
205	BEML MILL BROOK HIGHLAND PARK NJ	NAD
205	BEN HILL COUNTY, GA	SAD
205	BEND, DESCHUTES R. OR	NWD
205	BENNETTS BRANCH, HUSTON TWP, PA	NAD
205	BEPJ POPLAR BROOK	NAD
205	BIG SISTER CREEK, ANGOLA	LRD
205	BLACK ROCKS CREEK, SALISBURY, MA	NAD
205	BLACKSNAKE CREEK, ST. JOSEPH, MO	NWD
205	BLANCHARD RIVER, FINDLAY	LRD
205	BLANCHARD RIVER, OTTAWA, OH	LRD
205	BLIND BROOK, RYE, NY	NAD
205	BOIS BRULE L&D DISTRICT, MO BE241	MVD
205	BONO, AR	MVD
205	BORUP, MN	MVD
205	BRAITHWAITE PARK, PLAQUEMINES PARISH, LA	MVD
205	BRANCH BROOK,MT. KISCO,NY	NAD
205	BRENTWOOD BROOK,HARRISON,NY	NAD
205	BROOKLYN HEIGHTS, OH	LRD
205	BRUSH CREEK, GLADY FORK, PRINCETON, WV	LRD
205	BUCKEYE LAKE, OH	LRD
205	BYRUM CREEK, ANDERSON COUNTY, SC	SAD
205	CANISTEO MINE PIT LAKE, MN	MVD

**Table C-4: Continuing Authority Program Projects** 

205	CAPITOL BASIN, CHEYENNE, WY	NWD
205	CASHIE RIVER, WINDSOR, NC	SAD
205	CASS RIVER, SPAULDING TOWNSHIP, MICHIGAN	LRD
205	CEDAR RIVER, CEDAR FALLS UTILITIES, CEDAR FALLS , IA	MVD
205	CEDAR RUN, PA	NAD
205	CEDAR RVR TIME CHECK AREA, CEDAR RAPIDS, IA	MVD
205	CHAGRIN RIVER, EASTLAKE OH	LRD
205	CHARLESTON, MO	MVD
205	CHATTANOOGA CREEK WATERSHED, TN	LRD
205	CHIPPEWA RIVER AT MONTEVIDEO, MN	MVD
205	CIENEGAS CR, DEL RIO, TX	SWD
205	CITY OF BLUFFTON, WELLS CO (SEC 205)	LRD
205	CITY OF DELPHI, CARROLL CO (DEER CK LEVEE)	LRD
205	CITY OF EVERMAN, TX SEC 205	SWD
205	CITY OF FLEMING-NEON, LETCHER CO	LRD
205	CITY OF INDEPENDENCE, OH	LRD
205	CITY OF WHITTIER, CA	SPD
205	CLARK RUN CREEK, N. UTICAL, IL	MVD
205	CONCORDIA, KS	NWD
205	CONTRA COSTA CANAL, OAKLEY AND KNIGHTSEN, CA	SPD
205	COPPEI CREEK, WA	NWD
205	COSGROVE CREEK FLOOD CONTROL, CALAVERAS COUNTY	SPD
205	COUSHATTA INDIAN RESERVATION FDR PROJECT, ALLEN PARISH, LA	MVD
205	COW CREEK, CRAWFORD COUNTY, KS	SWD
205	COWSKIN CREEK, WICHITA, KS	SWD
205	CROSSCREEK, ROSSVILLE KS	NWD
205	CROWN POINT BASIN, JEFFERSON PARISH, LA	MVD
205	DALLAS BRANCH AND PIN HOOK CREEK, HUNTSVILLE, AL	LRD
205	DAM BREAK EARLY WARNING SYSTEM, SILVERTON, OR	NWD
205	DELANO, MN	MVD
205	DETROIT BEACH, LAKE ERIE, FRENCHTOWN TOWNSHIP, MI	LRD
205	DUCK CREEK, OH FWS	LRD
205	DUGAN RUN, URBANA, OH	LRD
205	EAST PEORIA, IL	MVD
205	EIGHTEENMILE CREEK, BOSTON	LRD
205	ELIZABETHTOWN, KY	LRD
205	ELKTON, MD	NAD
205	ELLICOTTVILLE, NY SEC 205	LRD
205	EUREKA CREEK, MANHATTAN, KS	NWD
205	FARGO, RIDGEWOOD ADDITION, ND	MVD
205	FARMERS BRANCH, TARRANT COUNTY, TX	SWD
205	FEATHER CREEK CLINTON, IN	LRD

**Table C-4: Continuing Authority Program Projects** 

205	FESTUS AND CRYSTAL CITY	MVD
205	FIRST CREEK, KNOXVILLE,TN	LRD
205	FISHER CREEK, SAND SPRINGS, OK	SWD
205	FORT YUKON FLOOD CONTROL, FORT YUKON, AK	POD
205	FOX RIVER MCHENRY COUNTY IL BE041	LRD
205	FRANKLIN COUNTY, KY	LRD
205	FRED CREEK, TULSA, OK	SWD
205	FULMER CREEK, VILLAGE OF MOHAWK, NY	NAD
205	GALINDO CREEK, CA	SPD
205	GOOSE BAYOU BASIN, JEFFERSON PARISH, LA	MVD
205	GOOSE CREEK, JACKSON, MO	MVD
205	GOOSE CREEK, WILBUR, WA	NWD
205	GRAFTON, IL	MVD
205	GRUBBS, AR	MVD
205	HAGUE, NORFOLK, VA	NAD
205	HAIKEY CREEK, BIXBY, OK	SWD
205	HAMILTON TOWNSHIP, NJ	NAD
205	HATCH, NM	SPD
205	HAVASUPAI FLOOD PROTECTION	SPD
205	HEBER SPRINGS, CLEBURNE CO., AR	SWD
205	HESHBON TO HEPBURNVILLE, LOWER LYCOMING CREEK	NAD
205	HESTER, ADAMSON & HEARTSILL CREEKS, GREENWOOD, AR	SWD
205	HIGH SCHOOL BRANCH, NEOSHO, MISSOURI	SWD
205	HINKSTON CREEK, MT STERLING, KY	LRD
205	HOMINY CREEK WATERSHED, NC	LRD
205	HOODS CREEK, BOYD COUNTY, KY	LRD
205	HOPKINSVILLE, KY	LRD
205	HOWELL CREEK, WEST PLAINS, MO	SWD
205	HUBBLE CREEK, JACKSON, MO	MVD
205	HUDSON RIVER, HIGHLAND FALLS,NY	NAD
205	HUGHES CREEK, KANAWHA COUNTY, WV SEC 205	LRD
205	INDIAN BAYOU, AR	MVD
205	INDIAN CREEK, CEDAR RVR, CEDAR RAPIDS, IA	MVD
205	JACKSON BROOK, MORRIS CITY, NJ	NAD
205	JAMESTOWN ISLAND, JAMES CITY COUNTY, VA	NAD
205	JEAN LAFITTE, FISHER SCHOOL BASIN, LA	MVD
205	JORDAN, MN	MVD
205	KANKAKEE RIVER LK & NEWTON CO SUMAVA, IN	LRD
205	KAPAAKEA FC, MOLOKAI, HI	POD
205	KEOPU-HIENALOLI STREAM, ISLAND OF HAWAII, HI	POD
205	KESHEQUA CREEK, NUNDA	LRD
205	KINGS POINT, WARREN COUNTY, MS	MVD

**Table C-4: Continuing Authority Program Projects** 

205	KNOX COUNTY, KELSO CREEK,IN	LRD
205	KULIOUOU STREAM, OAHU, HI	POD
205	LA BOCA, CACHETA, & PUNTA PALMAS, PR	SAD
205	LAC QUI PARLE RIVER, DAWSON, MN	MVD
205	LAGRANGE GUT, FREDERIKSTED, VI BELAG	SAD
205	LAMOTTE CREEK, PALESTINE, IL	LRD
205	LAS GALLIANAS CRK, MARIN CO BE746	SPD
205	LEWIS CREEK, BULVERDE, TX	SWD
205	LIMESTONE CREEK, FAYETTEVILLE, NY	LRD
205	LINE CREEK, CHICKASHA, OK	SWD
205	LITTLE BRAZOS RIVER, TX	SWD
205	LITTLE COPIAH CREEK, CRYSTAL SPRINGS, MS	MVD
205	LITTLE DUCK CREEK, OH	LRD
205	LITTLE FOSSIL CREEK, HALTOM CITY, TX	SWD
205	LITTLE LIMESTONE CR, JONESBOROUGH, TN	LRD
205	LITTLE PUERCO RV GALLUP NM BE709	SPD
205	LITTLE RIVER DIVERSION, DUTCHTOWN, MO	MVD
205	LITTLEMILL CR, NEW CASTLE CTY, DEBD625	NAD
205	LIVINGSTON, MT	NWD
205	LOCKPORT TO LA ROSE, LAFOURCHE PARISH, LA	MVD
205	LONG HILL TOWNSHIP	NAD
205	LONG HOUSE CREEK, TOWN OF WARWICK,NY	NAD
205	LOUISIANA, MO	MVD
205	LOVINGTON, IL	MVD
205	LOWER RIV DES PERES MO - AREA D	MVD
205	MACOMB COUNTY, MI	LRD
205	MACON LEVEE-205	SAD
205	MAD CREEK, MUSCATINE, IA	MVD
205	MAD RIVER BASIN,VT	NAD
205	MAGAZINE BRANCH, ELK RIVER, CHARLESTON, WV	LRD
205	MAGPIE & DON JULIO CREEKS, SACRAMENTO, CALIFORNIA	SPD
205	MANY, LA SEC 205 CAP	SWD
205	MAQUOKETA RIVER, MAQUOKETA, IA	MVD
205	MARSH CREEK, MAHNOMEN COUNTY, MN	MVD
205	MAYFIELD CREEK & TRIBUTARIES BE349	MVD
205	MCKEEL BROOK,MORRIS COUNTY,NJ	NAD
205	MCKINNEY BAYOU, TUNICA COUNTY, MS	MVD
205	MEREDOSIA, IL	MVD
205	METRO CENTER LEVEE, NASHVILLE,TN	LRD
205	MINNESOTA RIVER, GRANITE FALLS, MN	MVD
205	MINNEWAUKAN, ND	MVD
205	MISSISQUOI RIVER, VT	NAD

**Table C-4: Continuing Authority Program Projects** 

205	MOANALUA STREAM FLOOD DAMAGE REDUCTION, OAHU, HI	POD
205	MODOC L&D DIST PRAIRIE, IL BE101	MVD
205	MONROE COUNTY, IL	MVD
205	MONTICELLO AVENUE ILLINOIS BE051	LRD
205	MONTOURSVILLE, LYCOMING COUNTY, PA	NAD
205	MOODNA CREEK, NEW WINDSOR, NY	NAD
205	MORRIS CREEK, KANAWHA AND FAYETTE COUNTIES, WV SEC 205	LRD
205	MOUSE CREEK, CLEVELAND, TN	LRD
205	MOYER CREEK, VILLAGE OF FRANKFURT, NY	NAD
205	MUNFORD, TN (SECT 205)	MVD
205	NEW BRAUNSFELS, TX SEC 205	SWD
205	NEWPORT, MN	MVD
205	NORTH RIVER, PEABODY, MA	NAD
205	NORTH SPANISH SPRINGS, NV	SPD
205	NORTHVALE, SPARK HILL, NJ	NAD
205	OAK CREEK FLORENCE CO BE710	SPD
205	OAKVILLE TO LAREUSSITE, LAFOURCHE PARISH, LA	MVD
205	OTTER CREEK BASIN,VT	NAD
205	PAILET BASIN, JEFFERSON PARISH, LA	MVD
205	PAINT CR WINBER CAMBRIA CO, PA SEC 205	LRD
205	PALAI STREAM, HAWAII, HI	POD
205	PANKEY BRANCH, HARRISBURG, IL	LRD
205	PECAN CREEK, GAINESVILLE, TX	SWD
205	PEMBINA RIVER, NECHE, ND	MVD
205	PENNSVILLE, NJ	NAD
205	PINE CREEK, ALLEGH CO. PA	LRD
205	PLATTE RIVER, FREMONT, NE	NWD
205	PLATTE RIVER, SCHUYLER, NE	NWD
205	PLATTESKILL CREEK,SAUGERIES,NY	NAD
205	PLEASANT CREEK, GREENWOOD, IN	LRD
205	POCASSET RIVER, CRANSTON & JOHNSTON, RI	NAD
205	PORT JERVIS, NY	NAD
205	POST OAK CREEK, CORSICANA, TX	SWD
205	PRETTYLAKE, NORFOLK, VA	NAD
205	RANDOLPH, NE	NWD
205	RED CHUTE BAYOU LEVEE, BOSSIER CITY, LA	MVD
205	RED DUCK CREEK, KY #205	MVD
205	RED OAK, IOWA	NWD
205	RICHLAND CREEK, NASHVILLE, TN	LRD
205	RIO ANTON RUIZ-PUNTA SANTIAGO,PR BERAR	SAD
205	RIO CULEBRINA, AGUADA, PR BERCA	SAD
205	RIO DESCALABRADA, SANTA ISABEL,PRBERDS	SAD

**Table C-4: Continuing Authority Program Projects** 

205	RIO EL OJO DE AGUA PR BER	SAD
205	RIO FAJARDO PR BERFJ	SAD
205	RIO GRANDE AND UNNAMED TRIBUTARY, EAGLE PASS, TX	SWD
205	RIO GUAMANI, GUAYANA, PR BEGUM	SAD
205	RIO JACAQUAS IN JUANA DIAZ, PR	SAD
205	RIO LOCO, GUANICA, PR BERLG	SAD
205	RIO OROCOVIS, OROCOVIS, PR	SAD
205	RIO PATILLAS, PATILLAS, PR	SAD
205	ROBINSON RUN, ALLEGH CO, PA	LRD
205	ROBINSON, TX SEC 205	SWD
205	ROCK CREEK & KEEFER SLOUGH, BUTTE COUNTY, CA	SPD
205	ROCKBRIDGE COUNTY, VA	NAD
205	ROCKFORD, MN	MVD
205	ROSETHORNE BASIN, JEAN LAFITTE, LA	MVD
205	ROSSVILLE,TN	MVD
205	RUTHERFORD, NEW CASTLE COUNTY, DE	NAD
205	SALCHA FLOOD DAMAGE REDUCTION, SALCHA, AK	POD
205	SALMON RIVER, HADDAM & EAST HADDAM, CT	NAD
205	SAN PEDRO CREEK, PACIFICA, CA BE606	SPD
205	SANDY CREEK, TN #205	MVD
205	SAUGATUCK RIVER, WESTPORT, CT	NAD
205	SAUQUOIT CREEK,WHITESBORO,N Y	NAD
205	SCOTTS CREEK, SC	SAD
205	SEDGEWICK, KS, LITTLE ARK RIVER WATERSHED	SWD
205	SKAGWAY, AK	POD
205	SOUTH SUBURBAN AREA OF CHICAGO, IL	LRD
205	SPRING CREEK, ST. FRANCIS COUNTY, AR	MVD
205	ST MARTIN PARISH, LA	MVD
205	ST. MARIES, ID	NWD
205	ST. MARY'S RIVER, FORT WAYNE, IN	LRD
205	STEELE CREEK, VILLAGE OF ILION, NY	NAD
205	STEHEKIN, CHELAN COUNTY, WA	NWD
205	SUN VALLEY, EL PASO, TX	SPD
205	SUSQUEHANNA TOWNSHIP, PA	NAD
205	SWANNANOA RIVER WATERSHED, NC	LRD
205	TEHAMA, CA	SPD
205	TONGUE & YELLOWSTONE RVRS, MILES CITY, MT	NWD
205	TOOKANY CREEK, CHURCH ROAD, PA	NAD
205	TOOKANY CREEK, GLENSIDE ROAD, PA	NAD
205	TOWN BRANCH, NEWARK, AR	SWD
205	TOWN CREEK BASIN, LENOIR CITY, TN	LRD
205	TOWN OF CARENCRO, LAFAYETTE PARISH, LA	MVD

**Table C-4: Continuing Authority Program Projects** 

205	TOWN OF VESUVIUS, ROCKBRIDGE COUNTY, VA	NAD
205	TURPENTINE RUN, ST THOMAS, VI BETRN	SAD
205	TUSCARAWAS CO BEAVERDAM CREEK	LRD
205	UPPER DEL RVR WATERSHED FLD MITIGATION,NY (LIVINGSTON MANOR)	NAD
205	UPPER MAURY RIVER TRIBUTARIES ROCKBRIDGE & AUGUSTA COUNTIES	NAD
205	VALLEY VIEW, OH	LRD
205	VICKSBURG WASTEWATER TREATMENT PLANT LEVEE, WARREN CTY, MS	MVD
205	VILLAGE OF RUSSELLS POINT, LOGAN CO.	LRD
205	W.FORK STONES RIVER, MURFREESBORO, TN	LRD
205	WAHPETON, ND	MVD
205	WAIAHOLE-WAIAKANE VALLEY, OAHU, HI	POD
205	WAIAKEA STREAM, HAWAII, HI	POD
205	WAILELE STREAM, OAHU, HI	POD
205	WALTON HILL, OH	LRD
205	WEST VIRGINIA STATEWIDE FLOOD WARNING SYSTEM	LRD
205	WHITE RIVER, ANDERSON, IN	LRD
205	WHITE SLOUGH BE608	SPD
205	WHITEWATER RIVER, AUGUSTA, KS	SWD
205	WILD RICE & MARSH RIVERS, ADA, MN	MVD
205	WILLIAMSTOWN, WV	LRD
205	WILLIAMSVILLE, PHILADELPHIA, MS	MVD
205	WILLOWWOOD ADDITION, EDMOND, OK	SWD
205	WINNEBAGO RVR, MASON CITY, IA	MVD
205	WOODS CREEK/VMI, LEXINGTON, VA	NAD
205	WV RALEIGH CO., NORTH SAND BRANCH	LRD
205	WYNAMTSKILL CREEK,NORTH GREENBUSH,NY	NAD
205	WYNNE, AR #205	MVD
205	YELLOW CREEK, JEFFERSON CO. OHIO	LRD
205	YONKERS, NEPERA PARK NY	NAD
205	ZIMBER DITCH, STARK CO, OH	LRD

CAP Section	CAP Project Name	DIS
206	5TH AVE DAM REMOVAL, COLUMBUS, OH	LRD
206	ALLATOONA CREEK, COBB CO., GA	SAD
206	ALLEN CREEK, HALL COUNTY, GA	SAD
206	ALLEY CREEK, QUEENS, NY	NAD
206	ANNEEWAKEE CREEK WATERSHED, DOUGLAS CO., GA	SAD
206	AQUATIC ECOSYSTEM RESTORATION FOR ROSE BAY, VOLUISIA CO., FL	SAD
206	ARCOLA CREEK, MADISON, OH	LRD
206	ARKANSAS RIVER FISHERIES HABITAT RESTORATION, PUEBLO, CO	SPD
206	ARKANSAS RIVER, ARK CITY, KS	SWD

**Table C-4: Continuing Authority Program Projects** 

206	ARNOLD ECOSYSTEM RESTORATION, MO	MVD
206	ARROWHEAD CREEK AT WILSONVILLE, OR	NWD
206	ARROYO LAS POSITAS, CA	SPD
206	ARROYO MOCHO, CA	SPD
206	ASSABET RIVER, MA	NAD
206	BASALT, CO (SEC 206)	SPD
206	BASS RIVER SALT MARSH RESTORATION, YARMOUTH, MA	NAD
206	BATEMAN CREEK, OR	NWD
206	BAYOU GROSSE TETE RESTORATION, IBERVILLE PARISH, LA	MVD
206	BEAVER CREEK, OR	NWD
206	BEAVER RUIN CREEK, GWINETT CO., GA	SAD
206	BELLE ISLE STATE PARK, LANCASTER COUNTY, VA	NAD
206	BIG COTTON INDIAN CREEK, CLAYTON CO., GA	SAD
206	BIG CREEK WATERSHED, UNION & PULASKI COUNTIES, IL	MVD
206	BIG CREEK, FORSYTHE CO., GA	SAD
206	BIG FISHWEIR CREEK, FL	SAD
206	BIRD ISLAND RESTORATION, MARION, MA	NAD
206	BLACK LAKE ECOSYSTEM RESTORATION	POD
206	BLACKBERRY CREEK, PRESTBURY, IL	LRD
206	BLUE HOLE LAKE, NM	SPD
206	BLUE RIVER, CO (SEC 206)	SPD
206	BOQUERON REFUGE, PR	SAD
206	BOTTOMLESS LAKE STATE PARK, NM	SPD
206	BOW TIE WETLANDS, CO	NWD
206	BRADLEY LAKE, CITY OF STURGEON BAY, WI	LRD
206	BRONX RIVER STREAMBANK STABILIZATION AND CHANNEL RESTORATION	NAD
206	BROWNSVILLE BRANCH, LONOKE CO, AR	MVD
206	BRUBAKER RUN, PA	NAD
206	BRUSH NECK COVE, WARWICK, RI	NAD
206	BURAS MARINA WETLAND RESTORATION, PLAQUEMINES PARISH, LA	MVD
206	BURNHAM PRAIRIE	LRD
206	BUTLER CREEK, GA	SAD
206	BUTLER LAKE, IL	LRD
206	CABIN CREEK, SPALDING COUNTY, GA	SAD
206	CABIN CREEK, WEST VIRGINIA	LRD
206	CALAPOOIA RIVER AT BROWNSVILLE DAM, OR	NWD
206	CAMP CREEK, ZUMWALT PRAIRIE PRESERVE, OR	NWD
206	CANOA RANCH AQUATIC RESTORATION, AZ	SPD
206	CANONSBURG LAKE, PA	LRD
206	CARPENTER CREEK, WASHINGTON	NWD
206	CASS RIVER, CITY OF VASSAR, MI	LRD
206	CATFISH SWAMP, SC SECT 206	SAD

**Table C-4: Continuing Authority Program Projects** 

206	CEDAR LAKE, IN	LRD
206	CENTERVILLE CREEK, CLEVELAND, WI	LRD
206	CHAPEL BRANCH, SC	SAD
206	CHARITON RIVER/RATHBUN LAKE WATERSHED, IA	NWD
206	CHATTACHOOCHIE RIVER DAM REMOVAL, GA	SAD
206	CHEROKEE CREEK AQUATIC ECOSYSTEM RESTORATION, OK	SWD
206	CHESTER CREEK RESTORATION, AK	POD
206	CHICAGO BOTANICAL GARDENS, IL	LRD
206	CHIPPOKES STATE PARK, SURRY COUNTY, VA	NAD
206	CHRISTINE AND HICKSON DAMS	MVD
206	CIENEGA CREEK AQUATIC RESTORATION, AZ	SPD
206	CITY CREEK, UT	SPD
206	CITY OF MANDEVILLE ECOSYSTEM RESTORATION, ST TAMM PARISH, LA	MVD
206	CLEAR LAKE, IA	MVD
206	CLEARWATER LAKE, GOGEBIC CO, MI	LRD
206	CODORUS CREEK, PA	NAD
206	COFFEE LAKE AT WILSONVILLE, OR	NWD
206	COLERA CREEK, CA	SPD
206	COLLEGE LAKE, LYNCHBURG, VA	NAD
206	COMITE RIVER AT HOOPER ROAD, LA	MVD
206	CONCORD STREAMS RESTORTION, CONCORD, NC	SAD
206	CONCORDIA UNIVERSITY, WI	LRD
206	CONFLUENCE POINT STATE PARK, MO	MVD
206	COOPER RIVER RICE FIELD SITES	SAD
206	COTTONWOOD CREEK, ARLINGTON, TX	SWD
206	CROOKED CREEK, GA	SAD
206	CROSSWAY FIELD, VILLAGE OF SCARSDALE,NY	NAD
206	CROW CREEK AQUATIC ECOSYSTEM RESTORATION, TULSA, OK	SWD
206	CUYAHOGA RIVER STREAM PROJECT, AKRON, OH	LRD
206	DARBEE BROOK, VILLAGE OF LIBERTY, SULLIVAN COUNTY, NY	NAD
206	DARBY CREEK, DARBY BORO, PA	NAD
206	DEEP RUN/TIBER HUDSON, MD	NAD
206	DENTS RUN, MD	NAD
206	DETROIT RIVER, CITY OF TRENTON, MI	LRD
206	DOG ISLAND SHOALS, MD	NAD
206	DOWAGIAC RIVER, CASSOPOLIS, MI	LRD
206	DRAYTON DAM	MVD
206	DUCK CREEK RESTORATION, AK	POD
206	DUCK CREEK/FAIRMOUNT PARK WETLAND RESTOR SCOTT COUNTY, IA	MVD
206	EAST BIRCH CREEK RESTORATION, OR	NWD
206	EATONBROOK RESERVOIR, NY	NAD
206	EDITH READ NATURAL PARK AND WILDLIFE SANCTUARY IN RYE,NY	NAD

**Table C-4: Continuing Authority Program Projects** 

206	EKLUTNA, AK	POD
206	EL PASO, RIO BOSQUE WETLANDS RESTORATION, TX	SPD
206	ELIZ RIVER, CAROLANNE FARMS, VIRGINIA BEACH, VA	NAD
206	ELIZ RIVER, GRANDY VILLAGE, NORFOLK, VA	NAD
206	ELIZ RIVER, JORDAN BRIDGE, PORTSMOUTH, VA	NAD
206	ELIZ RIVER, LANCELOT DRIVE, VIRGINIA BEACH, VA	NAD
206	ELIZ RIVER, OLD DOMINION UNI DRAINAGE CANAL, NORFOLK, VA	NAD
206	ELIZ RIVER, SCUFFLETOWN CREEK, CHESAPEAKE, VA	NAD
206	ELIZ RIVER, WOODSTOCK PARK, VIRGINIA BEACH, VA	NAD
206	EMIQUON FLOODPLAIN RESTORATION	MVD
206	ENGLISH CREEK	SPD
206	ESSEX COUNTY,WEEQUAHIC PARK,NJ	NAD
206	EUGENE DELTA PONDS, OR	NWD
206	EUGENE FIELD, IL	LRD
206	FAIR HAVEN, MONMOUTH COUNTY, NJ	NAD
206	FAIRMOUNT PARK AQUATIC ECOSYSTEM RESTORATION, CA	SPD
206	FALL BROOK, PA	NAD
206	FALLS RUN, WHEELING CREEK, BELMONT, OH	LRD
206	FALSE RIVER RESTORATION, POINTE COUPEE PARISH, LA	MVD
206	FARGO SOUTH DAM	MVD
206	FLAT CREEK	SAD
206	FLINT RIVER WATERSHED, CLAYTON CO., GA	SAD
206	FOGELSVILLE DAM, LEHIGH COUNTY, PA	NAD
206	FOREST PARK, ST LOUIS, MO	MVD
206	FORMER FLUSHING AIRPORT, COLLEGE POINT, NY	NAD
206	FOURCHE CREEK @ HINDMAN PARK, LITTLE ROCK, AR	SWD
206	FOX RIVER/TICHIGAN LAKE, WATERFORD, WI	LRD
206	FREEBORN COUNTY ECOSYSTEM RESTORATION, MN	MVD
206	GALLA CREEK, AR	SWD
206	GALVESTON COUNTY MUD 12 EXOSYSTEM RESTORATION	SWD
206	GINGER CAKE CREEK, FAYETTEVILLE, GA	SAD
206	GIWW - MAD ISLAND MARSH, TX	SWD
206	GOOSE CREEK, CO	NWD
206	GOOSE POND/MIAMI OXBOW	LRD
206	GOVERNOR'S STATE UNIVERSITY, IL	LRD
206	GRAND (NEOSHO) RIVER ABOVE MIAMI, OK	SWD
206	GRAND MARAIS RIVER, RLWSD	MVD
206	GRASS LAKE, FOX RIVER, IL	LRD
206	GREAT CYPRESS SWAMP, DE	NAD
206	GREEN RIVER, UT	SPD
206	GREENBURY POINT, MD	NAD
206	GREENWOOD LAKE, NY	NAD

**Table C-4: Continuing Authority Program Projects** 

206	GROVER'S MILL POND, TWP OF WINDSOR, MERCER COUNTY,NJ	NAD
206	GUM THICKET CREEK, PAMLICO SOUND, NC	SAD
206	HACKENSACK MEADOWLANDS, NJ	NAD
206	HANOVER STREET WETLAND RESTORATION PROJECT, MD	NAD
206	HARBOR ISLAND PART, MAMARONECK , NY	NAD
206	HAY CREEK, ROSEAU COUNTY, MN	MVD
206	HAYDEN DIVERSION PROJECT, CO	SPD
206	HERON HAVEN, NE	NWD
206	HERSEY RIVER, HERSEY, MI	LRD
206	HICKORY CREEK, TINLEY PARK, IL	LRD
206	HIGGINS LAKE, MI	LRD
206	HIGHWAY 47, VERNONIA, OR	NWD
206	HIX BRIDGE SALT MARSH RESTORATION, WESTPORT, MA	NAD
206	HOCKING RIVER WETLANDS, LANCASTER, OH	LRD
206	HOFFMAN DAM, IL	LRD
206	HOGAN'S CREEK, FL	SAD
206	HOMER LAKE, ST JOSEPH RIVER	LRD
206	HORICON MARSH, WI	MVD
206	HORNER PARK, CHICAGO, IL	LRD
206	HORSESHOE LAKE RESTORATION, ALEXANDER COUNTY, IL	MVD
206	HOUGH'S NECK SALT MARSH, QUINCY, MA	NAD
206	HUFF RUN, BELDON SITE, OH	LRD
206	IA RVR/CLEAR CREEK, JOHNSON COUNTY, IA	MVD
206	ILLINOIS AND MICHIGAN CANAL, IL	LRD
206	INCLINE & 3RD CREEKS, NV	SPD
206	INGHAM SPRING DAM AND LAKE RECONSTRUCTION, PA	NAD
206	ISSAQUAH CREEK, WA	NWD
206	JACKSON CREEK, GWINETT CO., GA	SAD
206	JACKSON FISH PASSAGE PROJECT	MVD
206	JANES-WALLACE MEMORIAL DAM, SANTA ROSA, NM	SPD
206	JOHNSON CREEK/SPRINGWATER, OR	NWD
206	JOHNSON POND, LYNDONVILLE, NY	LRD
206	JONESBOROUGH (206), TN	LRD
206	JORDAN POINT DAM, LEXINGTON, VA	NAD
206	KANKAKEE, KANKAKEE COUNTY, IL	MVD
206	KELLOGG CREEK, OR	NWD
206	KETTLE CREEK, PA	NAD
206	KETTLE MORAINE WET PRAIRIE RESTORATION, WI	MVD
206	KEYSTONE HERITAGE PARK WETLAND RESTORATION, EL PASO, TX	SPD
206	KICKAPOO CREEK, CONCHO RIVER, UPPER COLORADO RIVER BASIN, TX	SWD
206	KINNICKINNIC RIVER, WI	MVD
206	KIPTOPEKE, NORTHAMPTON COUNTY, VA	NAD

**Table C-4: Continuing Authority Program Projects** 

206	KLAWOCK, AK	POD
206	KNIGHTS CREEK, AR	MVD
206	KOONTZ LAKE, IN (SEC206)	LRD
206	KOWAWESE AREA RESTORATION, NEW WINDSOR , NY	NAD
206	LA STATE PEN, LAKE KILLARNEY RESTORATION, W FELICIANA PAR,LA	MVD
206	LACAMAS CREEK, WA	NWD
206	LAKE ANNA, LOUISA, ORANGE AND SPOTSYLVANIA COUNTIES, VA	NAD
206	LAKE AUSTIN ECOSYSTEM RESTORATION, AUSTIN, TX	SWD
206	LAKE BELLE VIEW AQUATIC ECOSYSTEM RESTORATION, WI	MVD
206	LAKE CYPRESS SPRINGS, FRANKLIN COUNTY, TX	SWD
206	LAKE ISABELLE, HASTINGS, MN	MVD
206	LAKE KOSHKONONG AQUATIC ECOSYS RESTORATION, WI	MVD
206	LAKE LOU YAEGER RESTORATION, IL	MVD
206	LAKE MARTIN ECOSYSTEM RESTORATION, ST MARTIN PARISH, LA	MVD
206	LAKE MAUVAISTERRE, JACKSONVILLE, IL	MVD
206	LAKE NATOMA, CA	SPD
206	LAKE VERRET RESTORATION, ASSUMPTION PARISH, LA	MVD
206	LAWRENCE GATEWAY, MA	NAD
206	LEMAY WETLAND RESTORATION (SECTION 206)	MVD
206	LITTLE BAKER RIVER, WA	NWD
206	LITTLE BEAVERKILL STREAM RESTORATION LIVINGSTON MANOR, NY	NAD
206	LITTLE BLACK DITCH, RIPLEY COUNTY, MO	SWD
206	LITTLE CUYAHOGA RIVER, AKRON, OH	LRD
206	LITTLE RIVER WATERSHED, HALL COUNTY, GA	SAD
206	LOCKPORT PRAIRIE NATURE PRESERVE, WILL COUNTY	LRD
206	LONG LAKE, IN	LRD
206	LOWER BLACKSTONE RIVER, RI	NAD
206	LOWER BOULDER CREEK, CO	NWD
206	LOWER CACHE RIVER, BUTTONLAND SWAMP, IL	MVD
206	LOWER CUMBERLAND RIVER, LYON & CRITTENDEN CO., KY	LRD
206	LOWER HEMPSTEAD HARBOR, VILLAGE OF SEA CLIFF, NY	NAD
206	LOWER MENOMONEE RIVER VALLEY, MILWAUKEE, WI	LRD
206	LOWER TRUCKEE RIVER, PAIUTE	SPD
206	LOWER WHITE ROCK CRK DALLAS TX	SWD
206	MAD RIVER BASIN, VT	NAD
206	MAD RIVER BASIN,VT	NAD
206	MALDEN RIVER ECOSYSTEM, MA	NAD
206	MALLETT'S CREEK, WASHTENAW COUNTY, MI	LRD
206	MANHAN DAM, EASTHAMPTON, MA	NAD
206	MANHASSET BAY, TOWN OF NORTH HEMPSTEAD, NY, ECOSYSTEM RESTOR	NAD
206	MARION MILL POND, VILLAGE OF MARION, OSCEOLA COUNTY, MI	LRD
206	MARYVILLE, TN	LRD

**Table C-4: Continuing Authority Program Projects** 

206	MATANUSKA, AK	POD
206	MCINNIS PARK, CA	SPD
206	MENDENHALL, AK	POD
206	MENOMONEE, WI	LRD
206	MENTOR MARSH	LRD
206	MERAMEC RIVER WETLANDS, ST. LOUIS COUNTY, MO	MVD
206	MIDWEST SOARRING, MACOUPIN COUNTY, IL	MVD
206	MILFORD POND, MILFORD, MA	NAD
206	MILL CREEK RESTORATION AT MOREA, SCHUYLKILL COUNTY, PA	NAD
206	MILL POND RESTORATION, NASHUA, NH	NAD
206	MILL POND, BAY SHORE, NY	NAD
206	MILL POND, LITTLETON, MA	NAD
206	MILL RIVER, STAMFORD, CT	NAD
206	MILLER LAKE ECOSYSTEM RESTORATION, ACADIA PARISH, LA	MVD
206	MINERAL BAYOU, DURANT, OK	SWD
206	MISSOURI STREAM RESTORATION, MO	NWD
206	MOKUHINIA/MOKUULA ECOSYSTEM RESTORATION, MAUI, HI	POD
206	MORTON ARBORETUM, IL	LRD
206	MOSES LAKE ECOSYSTEM RESTORATION, TEXAS CITY, TX	SWD
206	MUD CREEK,GREAT SOUTH BAY,PATCHOGUE,NY	NAD
206	MURFREESBORO WEST FORK WETLANDS, MURFREESBORO,TN	LRD
206	NANTICOKE CREEK, LUZERNE COUNTY, PA	NAD
206	NARROWS RIVER, NARRAGANSETT, RI	NAD
206	NASHAWANNUCK POND, EASTHAMPTON, MA	NAD
206	NC OYSTER HABITAT RESTORATION, NC	SAD
206	NEPONSET RIVER, BOSTON, MA	NAD
206	NEW HAVEN RIVER BASIN, VT	NAD
206	NEW ROCHELLE,(ECHO BAY),NY	NAD
206	NINE MILE RUN, ALLEGHENY COUNTY, PA	LRD
206	NINIGRET & CROSS MILLS PONDS, CHARLESTOWN, RI	NAD
206	NIPPERSINK CREEK	LRD
206	NORTH BEACH, MD	NAD
206	NORTH FORK GUNNISON, CO (206)	SPD
206	NORTH OTTAWA, MN	MVD
206	NORTH PARK, ALLEGHENY COUNTY	LRD
206	NORTH SATUS DRAIN, YAKIMA, WA	NWD
206	NORTHSHORE WETLANDS RESTORATION, MO	MVD
206	NORTHWAY, AK	POD
206	NORTHWEST BRANCH, ANACOSTIA RIVER, MD	NAD
206	OAKS BOTTOM, OR	NWD
206	OLD SAN JOSE CREEK, CA	SPD
206	OLMOS CREEK, RESTORATION, SAN ANTONIO, TX	SWD

**Table C-4: Continuing Authority Program Projects** 

206	ORE KNOB, NC AQUATIC RESTORATION	LRD
206	ORISKANY FLATS,NY	NAD
206	ORLAND PARK, IL	LRD
206	OSGOOD POND RESTORATION, MILFORD, NH	NAD
206	OTSEGO LAKE, MI	LRD
206	PAINT BRANCH FISH PASSAGE, MD	NAD
206	PAINTERS CREEK, MN	MVD
206	PARADISE CREEK, CITY OF MOSCOW, ID	NWD
206	PAUL DOUGLAS WOODS, SOUTH BARRINGTON, IL	LRD
206	PAVON CREEK RESTORATION, CA	SPD
206	PECK LAKE, GENEVA, IL	LRD
206	Pennsville, Salem County, NJ	NAD
206	PENNYPACK CREEK DAMS, PA	NAD
206	PIGS EYE LAKE	MVD
206	PINEY CREEK, TN #206	MVD
206	PING TOM PARK, IL	LRD
206	PITCHER LAKE OXBOW RESTORATION	LRD
206	PLEASANT RIVER SALT MARSH RESTORATION, ADDISON, ME	NAD
206	POCOTALIGO RIVER AND SWAMP ECOSYSTEM RESTORATION, SC	SAD
206	POPLAR CREEK	LRD
206	PORT JEFFERSON HARBOR,LONG ISLAND,NY	NAD
206	PORT OF SUNNYSIDE, WA	NWD
206	POTASH BROOK,NY	NAD
206	POWDERLY CREEK, PA	NAD
206	POWELL RIVER, ELY/PUCKETTS CREEK, VA	LRD
206	PROCTOR CREEK, COBB CO., GA	SAD
206	QUINCY BAY, IL	MVD
206	QUONOCHONTAUG POND, CHARLESTOWN, RI	NAD
206	RANCOCAS CREEK FISHWAYS, NJ	NAD
206	RED OAK CREEK TRIBUTARY, RED OAK, TX	SWD
206	RED RIVER OF THE NORTH FISHWAYS, ND & MN	MVD
206	REED'S CANYON, PORTLAND, OR	NWD
206	REEDY RIVER, SC	SAD
206	REEVES CREEK, CLAYTON COUNTY, GA	SAD
206	RINCON CREEK	SPD
206	RIO GRANDE, LAREDO, TX	SWD
206	ROGERS POND, FRANKLIN TWP, NJ	NAD
206	ROGERS POND, FRANLIN TOWNSHIP, NY	NAD
206	RUN POND COASTAL ECOSYSTEM RESTORATION, MA	NAD
206	RYE, NY NURSERY WETLAND	NAD
206	SAIPAN LAGOON AQUATIC ECOSYSTEM RESTORATION, CNMI	POD
206	SALMON RIVER, CHALLIS, ID	NWD

**Table C-4: Continuing Authority Program Projects** 

206	SALT RIVER RESTORATON, CA	SPD
206	SAN MARCOS RIVER, SAN MARCOS, TX	SWD
206	SANDY RUN, PA	NAD
206	SAXIS ISLAND, ACCOMACK COUNTY, VA	NAD
206	SCHROON LAKE	NAD
206	SECORD AND SMALLWOOD LAKES, GLADWIN COUNTY, MI	LRD
206	SEQUOIT CREEK, IL	LRD
206	SETTINGDOWN CREEK WATERSHED, FORSYTH CO., GA	SAD
206	SHAD LAKE, MACOUPIN COUNTY, IL	MVD
206	SHAMROCK LAKE, CITY OF CLARE, MI	LRD
206	SHELDRAKE/ GOODLIFE POND, NEW ROCHELLE AND MAMARONECK, NY	NAD
206	SHERADEN PARK & CHARTIERS CR, PA	LRD
206	SHIREY BAY/RAINEY BRAKE WMA	SWD
206	SHOAL CREEK, GA	SAD
206	SILVER LAKE AQUATIC RESTORATION, SULLIVAN COUNTY, NY	NAD
206	SIX MILE RUN, PA	NAD
206	SOUNDVIEW PARK,CITY OF BRONX,NY	NAD
206	SOUTH FORK NOOKSACK RIVER, WA	NWD
206	SOUTH NEWPORT RIVER 206	SAD
206	SOUTH PARK LAKE	LRD
206	SOUTHAMPTON CREEK, ENVIRONMENTAL RESTORATION	NAD
206	SPRING CREEK VALLEY	LRD
206	SPRING CREEK, AL	LRD
206	SPRING CREEK,NY	NAD
206	SPRING LAKE, SAN MARCOS, TX	SWD
206	SPRINGFIELD MILLRACE, OR	NWD
206	SPRINGWATER/JOHNSON CREEK (GRESHAM), OR	NWD
206	SQAW CREEK, IL	LRD
206	SQUAK VALLEY PARK RESTORATION, WA	NWD
206	ST. HELEN-NAPA RIVER RESTORATION	SPD
206	ST. PETERS WETLANDS RESTORATION, MO	MVD
206	STEVENSON CREEK, CLEARWATER, FL	SAD
206	STEWART'S CREEK, BARNSTABLE, MA	NAD
206	STONE CREEK, VA	LRD
206	STORM LAKE, IA	MVD
206	STRAIGHT, REEDS, JONES & COX CREEKS, VA	LRD
206	SULPHUR CREEK AQUATIC RESTORATION, LAGUNA NIGUEL, CA	SPD
206	SULPHUR CREEK RESTORATION, CA	SPD
206	SUNSET PARK,BUSH PIERS,BROOKLYN,NY	NAD
206	SUTHERLIN CREEK, OR	NWD
206	SWEET ARROW LAKE, PA	NAD
206	SWEETWATER ECOSYSTEM RESTORATION, CA	SPD

**Table C-4: Continuing Authority Program Projects** 

206	SYRACUSE LAKEFRONT, ONONDAGA, NY	LRD
206	TAMARISK ERADICATION, CO	SPD
206	TANGIER ISLAND, ACCOMACK COUNTY, VA	NAD
206	TEN MILE RIVER, RI	NAD
206	THOMPSON CREEK RESTORATION	SPD
206	THREE CREEKS ENVIRONMENTAL RESTORATION, OH	LRD
206	TIDAL MIDDLE BRANCH, MD	NAD
206	TILLAMOOK BAY & ESTUARY, OR	NWD
206	TOLEDO BEND RESERVOIR, TX & LA	SWD
206	TREATS POND, COHASSET, MA	NAD
206	TURKEY CREEK, BREVARD COUNTY, FL CAP SECTION	SAD
206	TURTLE BAY, CA	SPD
206	TWIN FALLS, ID	NWD
206	UNDERWOOD CREEK, WAUWATOSA, WI	LRD
206	UNIVERSITY LAKES RESTORATION, EAST BATON ROUGE PARISH, LA	MVD
206	UPPER JORDAN RIVER ECOSYSTEM RESTORATION, UT	SPD
206	UPPER YORK CREEK DAM REMOVAL, CA	SPD
206	URIEVILLE LAKE	NAD
206	UTMSI WETLAND RESTORATION, PORT ARANSAS, TX	SWD
206	VALLEY CREEK PARK WETLAND RESTORATION, EL PASO, TX	SPD
206	VERMILLION RIVER ECOSYSTM RESTORATION, LAFAYETTE PARISH, LA	MVD
206	VILLAGE OF PATCHOGUE,NY	NAD
206	WALNUT BRANCH, SEGUIN, TX (SEC 206)	SWD
206	WANAMAKER WETLANDS, KS	NWD
206	WATAUGA, NC, AQUATIC RESTORATION	LRD
206	WATKINS CREEK, ST LOUIS, MO	MVD
206	WEBER RIVER, UT (SEC 206)	SPD
206	WEIR CREEK,NY	NAD
206	WEST BRANCH, STOWE, VT	NAD
206	WEST JORDAN RIVER, UT	SPD
206	WEST SHORE OF PENATAQUIT CREEK, BAY SHORE, NY	NAD
206	WESTERN BRANCH, PATUXENT, MD	NAD
206	WESTERN CARY STREAMS RESTORATION, CARY, NC	SAD
206	WESTMORELAND PARK, OR	NWD
206	WHITE SLOUGH WATER POLLUTION CONTROL FACILITY, LODI CA	SPD
206	WHITEBREAST WATERSHED ECOSYSTEM RESTORATION, IA	MVD
206	WILD BRANCH RIVER, WOLCOTT, VT	NAD
206	WILSON BAY RESTORATION, JACKSONVILLE, NC	SAD
206	WILSON PARK CREEK, MILWAUKEE COUNTY, WI	LRD
206	WINDOM FISH PASSAGE, MN	MVD
206	WINFIELD CREEK, WHEATON, IL	LRD
206	WINNAPAUG POND, WESTERLY, RI	NAD

**Table C-4: Continuing Authority Program Projects** 

206	WINOOSKI RIVER BASIN,VT	NAD	l
206	WISWALL DAM, DURHAM, NH	NAD	١
206	WOLF LAKE, IN	LRD	
206	WOLF PEN CREEK, COLLEGE STATION, TX	SWD	
206	WOOD CANYON AQUATIC RESTORATION, LAGUNA NIGUEL, CA	SPD	
206	WRIGHT'S CREEK, MD	NAD	
206	WWTP, MERIDIAN, TX	SWD	
206	WWTP, STEPHENVILLE, TX	SWD	
206	YORK RIVER STATE PARK, JAMES CITY COUNTY, VA	NAD	
206	ZEMUARRY PARK LAKE RESTORATION, TANGIPAHOA PARISH, LA	MVD	
206	ZUMBRO RIVER DELTA, MN	MVD	

CAP Section	CAP Project Name	DIS
208	BLACKWELL LAKE, BLACKWELL, OK	SWD
208	DICKENSON COUNTY, VA, SEC 208	LRD
208	GREAT PIECE MEADOWS, ESSEX AND MORRIS COUNTIES,NJ	NAD
208	ORAN, MO #208	MVD
208	POMPTON RIVER SNAGGING AND CLEARING, NJ	NAD
208	SNAGGING AND CLEARNING OF UPPER BAYOU BOEUF, RAPIDES PH, LA	MVD

CAP Section	CAP Project Name	DIS
1135	ACADEMY CREEK, BRUNSWICK, GA	SAD
1135	AGUA FRIA RIVER RIPARIAN RESTORATION	SPD
1135	ALAMEDA CREEK, CA	SPD
1135	ALLIN'S COVE, BARRINGTON, RI	NAD
1135	AMITE RIVER DIVERSION SPOIL BANK GAPPING, LIVINGSTON PH, LA	MVD
1135	AQUATIC HABITAT RESTORATION @ PUBLO OF SANTA ANA, NM	SPD
1135	ARK. RVR ENV REST, LK DARDANELLE, RUSSELLVILLE & FT SMITH, A	SWD
1135	ARKANSAS RIVER, GARDEN CITY, KS	SWD
1135	ASHLEY CREEK ECOSYSTEM RESTORATION, UT	SPD
1135	ASSUNPINK CREEK, ENVIRONMENTAL RESTORATION	NAD
1135	AUGRES RIVER, ARENAC COUNTY, MI	LRD
1135	BATTLE ISLAND, WI	MVD
1135	BAYOU DESIARD, MONROE, LA	MVD
1135	BAYOU MACON, LAKE VILLAGE, AR	MVD
1135	BELHAVEN HARBOR ENVIRONMENTAL IMPROVEMENTS, BELHAVEN, NC	SAD

**Table C-4: Continuing Authority Program Projects** 

1135	BELLEVIEW WETLANDS, CO	NWD
1135	BENNINGTON LAKE DIVERSION DAM, WA	NWD
1135	BIG CREEK LAKE SPILLWAY MODIFICATION	MVD
1135	BIG CYPRESS BAYOU FISH AND WILDLIFE HABITAT RESTORATION, TX	SWD
1135	BIG LAKE ECOSYSTEM RESTORATION, OK	SWD
1135	BLACK MALLARD CREEK, PRESQUE ISLE COUNTY, MI	LRD
1135	BLOOMINGTON AREA RESTORATION, LONG BRANCH LAKE, MO	NWD
1135	BLUE VALLEY WETLANDS, JACKSON CO., MO	NWD
1135	BOEUF RIVER, POINT JEFFERSON, LA	MVD
1135	BOISE RIVER AT EAGLE ISLAND, ID	NWD
1135	BOTHIN SLOUGH, CA	SPD
1135	BOYD'S SALT MARSH RESTORATION, RI	NAD
1135	BRAIDED REACH	NWD
1135	BROAD MEADOWS MARSH RESTORATION, MA	NAD
1135	BULL CREEK CHANNEL ECOSYSTEM RESTORATION, CA	SPD
1135	BULL SHOALS LAKE NURSERY POND, AR	SWD
1135	BULL SHOALS LAKE TAILWATER RESTORATION, AR	SWD
1135	C-102/103 RESTORATION, DADE COUNTY, FL	SAD
1135	C-7 MIAMI-DADE, FL	SAD
1135	C-9, MIAMI-DADE, FL	SAD
1135	CALCASIEU RIVER HYDROLOGIC RESTORATION, CALCASIEU PARISH, LA	MVD
1135	CALOOSAHATCHEE OXBOWS RESTORATION, LEE COUNTY	SAD
1135	CANNON BRAKE/LOWER VALLIER, ARK & JEFFERSON COUNTIES, AR	MVD
1135	CDF #3, OREGON, OH	LRD
1135	CHEROKEE CANAL, CA	SPD
1135	CIUDAD, RIO GRANDE, NM	SPD
1135	CONNEAUT HARBOR, OH	LRD
1135	CORDOVA HARBOR, AK	POD
1135	CORONADO, RIO GRANDE, NM	SPD
1135	DADE COUNTY, FL	SAD
1135	DAIRY CREEK, OR	NWD
1135	DELAWARE BAY OYSTER HABITAT RESTORATION	NAD
1135	DELAWARE BAY OYSTER RES, NJ	NAD
1135	DILLON LAKE, OH SECTION 1135	LRD
1135	DITCH 28 STRUCTURE AND LEVEES, MISSISSIPPI CO., AR	MVD
1135	DUCK CREEK, STODDARD COUNTY, MO	MVD
1135	DUMP LAKE, YAZOO COUNTY, MS	MVD
1135	EAGLELAND HABITAT RESTORATION, SAN ANTONIO, TX	SWD
1135	EAST HARBOR STATE PARK, WEST HARBOR, OH	LRD
1135	EAST RIO ARRIBA, RIO GRANDE, NM	SPD
1135	EAST ST LOUIS RIVERFRONT, IL	MVD
1135	EAU GALLE RIVER	MVD

**Table C-4: Continuing Authority Program Projects** 

1135	ECOSYSTEM REVITALIZATION @ ROUTE 66	SPD	
1135	ELIZABETH RIVER,UNION COUNTY,NJ	NAD	
1135	ESTRAL BEACH, NEWPORT, MI	LRD	
1135	FAIRMOUNT DAM, PA	NAD	
1135	FERN RIDGE LAKE MARSH RESTORATION, OR	NWD	
1135	FLINT RIVER AND SWARTZ CREEK, FLINT, MI	LRD	
1135	FOX CREEK, OR	NWD	
1135	FRAZIER/WHITEHORSE OXBOW LAKE WEIR, LA	MVD	
1135	GERRITESEN CREEK, BROOKLYN, NY	NAD	
1135	GIWW, WEST OF HARVEY, MILE 220-222.5 (1135)	MVD	
1135	GLF INTRA C. WTRWAY, PLAQ.LOCK,LABE690	MVD	
1135	GULL POINT, PRESQUE ISLE, ERIE, PA	LRD	
1135	HALF-MOON COVE, PERRY, ME	NAD	
1135	HARLOW CREEK, MARQUETTE COUNTY, MI	LRD	
1135	HART-MILLER ISLAND, MD	NAD	
1135	HENDERSONVILLE, TN (DRAKES CREEK)	LRD	
1135	HERITAGE ISLAND, DC	NAD	
1135	HNC MILE 12-31.4 RESTORATION, TERREBONNE PARISH, LA	MVD	
1135	HOOSIC RIVER,TOWN OF ADAMS,MA	NAD	
1135	INDIAN RIDGE MARSH, CHICAGO, IL	LRD	
1135	J. PERCY PRIEST, STONES RIVER, TN	LRD	
1135	JAMAICA BAY, MARSH ISLAND, NY	NAD	
1135	JIM WOODRUFF FISH PASSAGE, FL	SAD	
1135	JOE CREEK HABITAT RESTORATION, TULSA, OK	SWD	
1135	JOPPA PRESERVE RESTORATION, TX	SWD	
1135	K6 SAV HARBOR ECOSYSTEM RESTOR	SAD	
1135	KALAMAZOO RIVER, BATTLE CREEK, MI	LRD	
1135	KANAHA POND WILDLIFE SANCTUARY RESTORATION, MAUI, HI	POD	
1135	KANSAS CITY RIVERFRONT, MO	NWD	
1135	KAUNAKAKAI STREAM ENVIRONMENTAL RESTORATION, MOLOKAI, HI	POD	
1135	KAWAINUI MARSH ENVIRONMENTAL RESTORATION, OAHU, HI	POD	
1135	KEITH LAKE FISH PASS, JEFFERSON COUNTY, TX	SWD	
1135	KIDS CREEK, TRAVERSE CITY, MI	LRD	
1135	LAKE CHAMPLAIN CANAL BARRIER, VT	NAD	
1135	LAKE CHAMPLAIN SEA LAMPREY BARRIERS	NAD	
1135	LAKE CHAMPLAIN,VT	NAD	
1135	LAKE FAUSSE POINT ECOSYSTEM RESTORATION, ST. MARY PARISH, LA	MVD	
1135	LAKE GEORGE RESTORATION, YAZOO COUNTY, MS	MVD	
1135	LAKE JESSUP	SAD	Ì
1135	LAKE POYGAN, WI	LRD	
1135	LAKE ST. JOSEPH, TENSAS PARISH, LA	MVD	
1135	LAKE WHITTINGTON WEIR, MS AND AR	MVD	

**Table C-4: Continuing Authority Program Projects** 

1135	LAKE YAZOO, MS	MVD
1135	LAS CRUCES DAM ENVIRONMENTAL RESTORATION, DONA ANA COUNTY NM	SPD
1135	LATHAM RIVER/JEKYLL ISLAND, GA	SAD
1135	LEWISVILLE LAKE, FRISCO, TX	SWD
1135	LINCOLN PARK WEST, JERSEY CITY, NJ	NAD
1135	LONG BRANCH LAKE ECOSYSTEM RESTORATION	NWD
1135	LOWER CACHE RIVER, AR 1135	MVD
1135	LOWER COLUMBIA SLOUGH,OR	NWD
1135	LOWER KINGMAN ISLAND	NAD
1135	LOWER OBION RIVER & VICINITY, DYER COUNTY, TN	MVD
1135	LOWER ROUGE, ROTUNDA DR. AND I-94, MI	LRD
1135	MACON LEVEE-1135	SAD
1135	MANTACHIE CREEK, ITAWAMBA CO., MS	SAD
1135	MAPES CREEK, WA	NWD
1135	MARK TWAIN LAKE FISH HABITAT, MO	MVD
1135	MILL RIVER, NORTHHAMPTON, MA	NAD
1135	MILLWOOD, GRASSY LAKE, AR, SECTION 1135	SWD
1135	MORDECAI ISLAND COASTAL WETLANDS, NJ	NAD
1135	MORGANZA FOREBAY RESTORATION, POINTE COUPEE PH, LA	MVD
1135	MRGO SEDIMENT TRAP @ BRETON ISLAND, PLAQUEMINES PARISH, LA	MVD
1135	MURPHY SLOUGH, CA	SPD
1135	NFTA OUTER HARBOR	LRD
1135	NMLC, BUZZARD BAY, MA	NAD
1135	NORFORK TAILWATER RESTORATION, AR	SWD
1135	NORTH NASHUA RIVER, FITCHBURG, MA	NAD
1135	NORTHPORT HARBOR, TOWN OF HUNTINGTON, NY	NAD
1135	O.C. FISHER LAKE ECOSYSTEM RESTORATION, TX	SWD
1135	OLD MAIN STEM TRINITY ECOSYSTEM RESTORATION, DALLAS, TX	SWD
1135	OLD TRINITY RIVER CHANNEL WILDLIFE RESTORATION, DALLES, TX	SWD
1135	OUACHITA RIVER, CAMDEN RIVER WALK, CAMDEN, AR	MVD
1135	PELEKANE BAY ECOSYSTEM RESTORATION, HAWAII, HI	POD
1135	PINE MOUNT CREEK	NAD
1135	PINOLE CREEK, CA	SPD
1135	POND CREEK, NJ	NAD
1135	POOL'S BLUFF SILL, MS	MVD
1135	PRISON FARM SHORELINE HABITAT, ND	NWD
1135	PUTAH CREEK SOUTH FORK PRESERVE, CA	SPD
1135	RAHWAY RIVER,CITY OF RAHWAY,NJ	NAD
1135	RATHBUN LAKE HABITAT RESTORATION PROJECT, IA	NWD
1135	REND CITY WETLANDS RESTORATION, IL	MVD
1135	RESTORATION OF GRASS DALE, DE	NAD
1135	RESTORE LA ESPERANZA PENIN,PR BGRLE	SAD

**Table C-4: Continuing Authority Program Projects** 

I	4405	DILLITO DIVED DIDADIAN AND WETLAND DEVELOPMENT, AZ	000	l
	1135	RILLITO RIVER RIPARIAN AND WETLAND DEVELOPMENT, AZ	SPD	
	1135	RIPARIAN/WETLAND REST., PUEBLO OF SANTA ANA RESERVATION, NM	SPD	
	1135	ROCK CREEK @ BOYLE PARK, LITTLE ROCK, AR ROSCOE CUT MACINTOSH CNTY	SWD	
	1135		SAD	
	1135 1135	ROUGE RIVER OXBOW, WAYNE CO., MI RUFFY BROOK AND CLEARWATER RIVER	LRD MVD	
	1135	SAGAMORE MARSH, CAPE CODE CANAL, MA.	NAD	
	1135	SALT CEDAR INVASIVE SPECIES ERADICATION/RESTORATION, NE	NWD	
	1135	SAND CREEK, NEWTON, KS	SWD	
	1135	SAND HILL RIVER	MVD	
	1135	SANTA FE, POJOAQUE, RIO GRANDE, NM	SPD	
		SARASOTA BAY RESTORATION, SARASOTA CO., FL	SAD	
	1135			
	1135	SCHMIDT CREEK, PRESQUE ISLE COUNTY, MI	LRD LRD	
	1135	SEA LAMPREY BARRIER, MANISTIQUE, MI		
	1135	SHELBYVILLE WILDLIFE MANAGEMENT AREA RESTORATION, IL	MVD	
	1135	SHELDON'S MARSH, HURON/SANDUSKY, OH SHORTY'S ISLAND	LRD NWD	
	1135			
	1135	SMITHVILLE AQUATIC PLANTINGS	NWD	
	1135	SMOKES CREEK, ERIE COUNTY, NY SPUNKY BOTTOMS RESTORATION, BROWN COUNTY, IL	LRD MVD	
	1135			
	1135	STEAMBOAT CREEK, WASHOE COUNTY, NV	SPD MVD	
	1135	STEEP BANK CREEK, FELSENTAL NWR, AR		
	1135	STEIGERWALD LAKE, WA	NWD	
	1135 1135	SUCKER RIVER, ALGER COUNTY, MI SULPHUR RIVER WILDLIFE MANAGEMENT AREA, AR	LRD MVD	
	1135	SW WASHINGTON STREAMS, WA	NWD	
	1135	TAPPAN LAKE, OH SEC 1135	LRD	
	1135	TAYLOR BAY, WOODRUFF COUNTY, AR	SWD	
	1135	TAYLORS BAYOU, PORT ARTHUR, TX	SWD	
	1135	TCHULA LAKE, MS	MVD	
	1135	THREE-MILE CREEK, AL	SAD	
		TOWN OF BROOKHAVEN, HARD CLAM RESTORATION, GREAT SOUTH BAY,	NAD	
	1135	TRAIL CREEK, LAPORTE COUNTY, IN		
	1135 1135	TUJUNGA WASH ENVIRONMENTAL RESTORATION, CA	LRD SPD	
		· ·		
	1135 1135	UMBRELLA CREEK, DOVER BLUFF, GA UNION SLOUGH, WA	SAD NWD	
	1135	UPPER DEER CREEK, MS DELTA, MS	MVD	
	1135	UPPER ROUGE, MICHIGAN AVE. TO ROTUNDA DR., MI	LRD	
	1135	VALENCIA, RIO GRANDE, NM	SPD	
	1135	VILLAGE OF OYSTER, NORTHAMPTON COUNTY, VA	NAD	
	1135	VIRGINIA BEACH KEY, FL (SEC. 1135)	SAD	
	1135	WALLA WALLA RIVER SECTION 1135, OR	NWD	

**Table C-4: Continuing Authority Program Projects** 

1135	WELLS LOCK AND DAM, ELIZABETH, WV	LRD
1135	WHITNEY POINT LAKE, NY	NAD
1135	WHITTIER NARROWS NATURE CENTER & WILDLIFE REFUGE RESTORATION	SPD
1135	WILDCAT CREEK RESTORATION, CA	SPD
1135	WILLS CREEK, MASON MINE 280, OH	LRD
1135	WOODSON BRIDGE, CA (SEC 1135)	SPD
1135	WYNOOCHEE ANADROMOUS FISH RESTORATION, WA	NWD
1135	YOLO WETLANDS BASIN, DAVIS SITE, SACRAMENTO, CA	SPD

Table M-1: Mississippi River and Tributaries, Base Plan Scenario (\$ Thousands)

MSC	ST	Project	2009	2010	2011	2012	2013
		Investigations					
		Surveys and Collection and Study of Basic Data					
MVD	LA	ATCHAFALAYA BASIN, FLOODWAY SYSTEM, LA	100	100	100	0	0
		COLDWATER RIVER BASIN BELOW ARKABUTLA LAKE,					
MVD	MS	MS	125	5	0	0	0
MVD	TN	COLLECTION AND STUDY OF BASIC DATA	400	400	400	400	400
		MEMPHIS METRO AREA, STORM WATER MGMT STUDY,					
MVD	TN	TN	34	34	34	34	34
		Subtotal of Surveys and Collection & Study of Basic Data	659	539	534	434	434
		Preconstruction Engineering and Design (PEDs)					
MVD	LA	ALEXANDRIA TO THE GULF, LA	790	790	790	380	0
		Subtotal of PEDs	790	790	790	380	0
		Additional Studies and PEDs	0	17	34	538	912
		Total General Investigations	1,449	1,346	1,358	1,352	1,346
		Construction					
MVD	LA	ATCHAFALAYA BASIN, FLOODWAY SYSTEM, LA	2,025	1,882	1,929	1,948	1,940
MVD	LA	Mississippi Delta Region, LA	2,259	2,099	1,005	0	0
MVD	LA	ATCHAFALAYA BASIN, LA	6,300	5,854	6,002	6,061	6,034
MVD	AR	MISSISSIPPI RIVER LEVEES, AR, IL, KY, LA, MS, MO & TN	20,000	18,583	19,053	19,240	19,154
MVD	AR	Channel Improvement	45,223	42,020	43,081	43,505	43,310
		Total Construction	75,807	70,438	71,069	70,754	70,438
		Maintenance					
		Total Maintenance (Project Specific Listing Omitted)	162,744	151,216	152,573	151,894	151,216
		Total - Mississippi River and Tributaries (MR&T) Account	240,000	223,000	225,000	224,000	223,000

Table M-2: Mississippi River and Tributaries, Enhanced Plan Scenario (\$ Thousands)

MSC	ST	Project	2009	2010	2011	2012	2013
		Investigations					
		Surveys and Collection and Study of Basic Data					
MVD	LA	ATCHAFALAYA BASIN, FLOODWAY SYSTEM, LA	200	100	100	0	0
MVD	MS	COLDWATER RIVER BASIN BELOW ARKABUTLA LAKE, MS	130	5	0	0	0
MVD	TN	COLLECTION AND STUDY OF BASIC DATA	400	400	400	400	400
MVD	TN	MEMPHIS METRO AREA, STORM WATER MGMT STUDY, TN	100	200	300	284	66
		Subtotal of Surveys and Collection & Study of Basic Data	830	705	800	684	466
		Preconstruction Engineering and Design (PEDs)					
MVD	LA	ALEXANDRIA TO THE GULF, LA	790	850	800	310	0
		Subtotal of PEDs	790	850	800	310	0
		Additional Studies and PEDs	380	445	400	1,006	1,534
		Total General Investigations	2,000	2,000	2,000	2,000	2,000
		Construction					
MVD	LA	ATCHAFALAYA BASIN, FLOODWAY SYSTEM, LA	2,377	2,351	2,324	2,297	2,271
MVD	LA	MISSISSIPPI DELTA REGION, LA	2,652	2,622	2,593	2,563	2,533
MVD	LA	ATCHAFALAYA BASIN, LA	7,396	7,313	7,230	7,147	7,064
MVD	AR	MISSISSIPPI RIVER LEVEES, AR, IL, KY, LA, MS, MO & TN	23,481	23,217	22,953	22,689	22,425
MVD	AR	CHANNEL IMPROVEMENT	53,093	52,497	51,900	51,304	50,707
		Total Construction	89,000	88,000	87,000	86,000	85,000
		Maintenance					
		Total Maintenance (Project Specific Listing Omitted)	191,000	197,000	204,000	211,000	218,000
		Total - Mississippi River and Tributaries (MR&T) Account	282,000	287,000	293,000	299,000	305,000