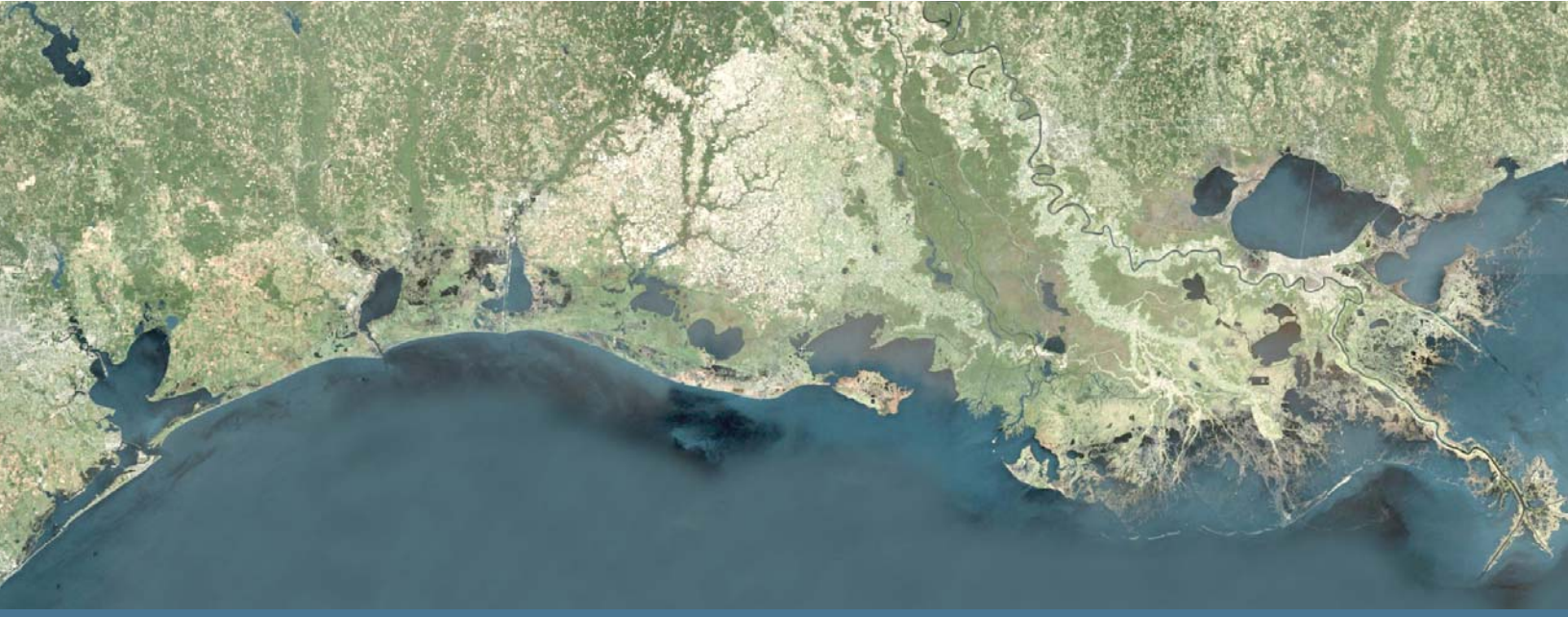

Fiscal Year 2012 Annual Plan

Integrated Ecosystem Restoration and Hurricane Protection in Coastal Louisiana

April 2011

CPRA
Coastal Protection and Restoration Authority of Louisiana

OFFICE OF
Coastal Protection and Restoration

Fiscal Year 2012 Annual Plan: Integrated Ecosystem Restoration
and Hurricane Protection in Coastal Louisiana

Submitted to the

Senate Natural Resources Committee
House Natural Resources and Environment Committee
Senate Transportation, Highways and Public Works Committee
House Transportation, Highways and Public Works Committee

by

The Coastal Protection and Restoration Authority of Louisiana
In accordance with R.S. 49:214.5.3 and R.S. 49:214.6.1

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This plan was created by an interdisciplinary team from the Office of Coastal Protection and Restoration led by Kirk Rhinehart, Karim Belhadjali, and Mandy Green. Additional team members also participated in the plan's development:

– Brown and Caldwell

– RAND Corporation

– University of New Orleans (Dr. Denise Reed)

– Amy Clipp

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Introduction

Louisiana has the largest expanse of coastal wetlands in the lower 48 states and is home to the largest delta in North America. Louisiana's coast provides a home for nearly half the state's population and supports nationally significant commercial and industrial activities. Yet this vital natural resource is threatened, and its value to the nation declines more each year in the wake of Louisiana's coastal land loss crisis. Since the 1930s, Louisiana has lost more than 2,300 square miles of coastal lands. Louisiana's coastal crisis was further compounded by the effects of the four hurricanes of 2005-2008 and by the Deepwater Horizon oil spill in 2010. These dual crises come at a time when funding for coastal protection and restoration activities is more difficult to procure than ever before. The State of Louisiana (State) is therefore under increased pressure to identify new tools and resources to protect and restore coastal environments, assets, and communities in a resilient manner to ensure that these vital resources are better equipped to withstand future catastrophic events and ongoing degradation.

The Coastal Protection and Restoration Authority (CPRA) is directed by the Louisiana Legislature to produce an Annual Plan each year that inventories projects, presents implementation schedules for these projects, and identifies funding schedules and budgets. The CPRA produces the Annual Plan through the Office of Coastal Protection and Restoration (OCPR), which functions as the execution office of the CPRA. The Fiscal Year (FY) 2012 Annual Plan provides an update on the State's efforts to protect and restore its coast and describes the short-term and long-term results that citizens can expect to see as the State progresses toward a sustainable coast.

Progress in the Coastal Program

Recognizing the severity of the crisis facing coastal Louisiana, in 2005, the State began an aggressive campaign to expedite and increase coastal protection and restoration efforts. These efforts were augmented with $790 million in State budget surplus funds from 2007-2009 to support coastal protection and restoration activities. These funds provided a much-needed boost to the coastal program, enabling many projects to proceed to construction or otherwise progress ahead of their original schedules. This increase is reflected in project activity in FY 2011, in which 30 coastal projects were under construction, including nine flood protection projects, 20 restoration projects, and one infrastructure project. Of these projects, 10 were completed, including one protection project, eight restoration projects, and one infrastructure project. Chapter 2 presents additional information about these projects.

In addition to progress in implementing projects, the State also made significant progress in ongoing programs that advance the state of knowledge of coastal issues. Many of these efforts were overseen by OCPR's Louisiana Applied Coastal Engineering and Science (LACES) Division. LACES activities in FY 2011 included developing the Louisiana Sediment Management Plan (LASMP) to identify and manage sediment resources for coastal projects, cosponsoring the June 2010 conference *The State of the Coast: Implementing a Sustainable Coast for Louisiana*, and working with Louisiana universities to create a Coastal Sustainability Consortium. The State also made progress on several initiatives that will improve the coastal program by exploring new technologies (such as the Innovative Dredging Technology initiative) and developing markets to generate revenue from the beneficial effects of projects (such as the Coastal Carbon Credits Offset Program and Water Quality Credit initiatives). Finally, to improve transparency to stakeholders and the public, the State began development of a new CPRA/OCPR website (http://coastal.louisiana.gov/) and transitioned to a new project tracking system (@task) that will allow unprecedented access to many aspects of the coastal program.

This progress was made in the face of severe challenges, including the Deepwater Horizon oil spill, which posed a threat to coastal Louisiana's natural resources of a magnitude never before experienced. The State responded quickly and effectively to the oil spill by implementing a series of emergency actions. In the aftermath of the spill, the State is now seeking to maximize its investment in oil spill recovery activities by implementing restoration projects that build on, or work synergistically with, these efforts.

FY 2012 Implementation Plan

The FY 2012 Annual Plan presents a three-year implementation plan for current coastal projects. Project status for FY 2012 is summarized by phase below:

- Planning 7
- Design..... 46
- Waiting for construction funding..... 2
- Construction 49
- Construction to be completed in FY 2012 14
- Funded for operation and maintenance..... 83
- Funded for monitoring..... 38

Chapter 3 presents additional information on project status, including an inventory of projects by coastal program.

The FY 2012 Annual Plan also contains budget projections (Tables ES-1 and ES-2) that show projected revenues and the amount of State funds that would actually be needed to accomplish the proposed implementation plan over the next three fiscal years. Resources in FY 2012 will be focused on constructing coastal projects that have already been planned and/or designed (Figure ES-1). Funding projections include State budget surplus funds allocated for coastal projects. The implementation plan and funding projections presented in the FY 2012 Annual Plan represent a snapshot in time based on the available funding sources. The State is actively exploring new sources of funding to ensure that the coastal program maintains its current momentum, including Clean Water Act (CWA) penalties resulting from the Deepwater Horizon oil spill, future Gulf of Mexico Energy Security Act (GOMESA) funding, and credit initiatives that would generate revenue from the carbon sequestration and water quality benefits of constructed projects. The State is also exploring, as part of the Natural Resources Damage Assessment (NRDA) for the Deepwater Horizon oil spill, the implementation of coastal restoration projects to address injuries to natural resources caused by the spill.

New project opportunities may arise as Federal funds become available after the approval of the FY 2012 Annual Plan, and conditions may necessitate reprogramming of existing funds to address changes on the ground. If necessary, reprogramming of existing and new funds would occur, with approval from the CPRA, to ensure that limited coastal program funds are allocated to the areas of greatest need and in a manner that will provide the greatest overall benefit to the coast. Such flexibility allows the coastal program to respond effectively to unforeseen events that take place outside the legislatively mandated planning cycle.

Table ES-1. Projected Three-Year Revenues (FY 2012–FY 2014).

Revenue Sources	FY 2012	FY 2013	FY 2014	Program Total (FY 2012–FY 2014)
CPR Trust Fund Annual Revenue[1]	$32,622,357	$35,000,000	$35,000,000	$102,622,357
GOMESA[1]	$222,725	$222,725	$222,725	$668,175
DOTD Interagency Transfer[1]	$4,000,000	$4,000,000	$4,000,000	$12,000,000
CIAP	$70,009,943	$67,288,730	$16,820,270	$154,118,943
Surplus '07	$85,501,716	$52,376,734	$10,128,725	$148,007,176
Surplus '08	$33,792,307	$51,868,685	$13,120,455	$98,781,447
Surplus '09	$42,272,396	$10,493,794	$4,926,250	$57,692,439
Hazard Mitigation Grant Program[2]	$45,270,000	$0	$0	$45,270,000
Community Development Block Grants	$5,780,769	$12,561,714	$5,217,517	$23,560,000
Berm to Barrier[3]	$36,266,667	$54,733,333	$9,000,000	$100,000,000
FEMA Reimbursement for OM&M	$10,500,000	$0	$0	$10,500,000
USFWS Reimbursement for Vegetative Plantings	$98,750	$0	$0	$98,750
Reimbursement for Federal In-Kind Credit	$8,491,386	$8,751,041	$9,021,083	$26,263,511
CWPPRA Match (Phase 1, Phase 2, OM&M)[4]	$20,204,593	$25,264,314	$23,296,943	$68,765,850
Total Projected Revenue	$395,033,609	$322,561,070	$130,753,967	$848,348,647

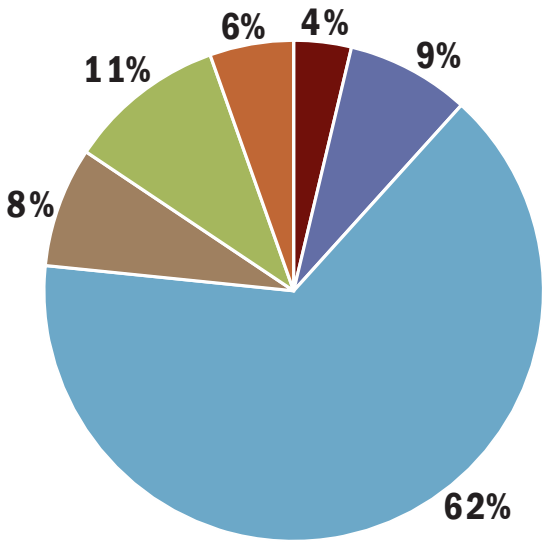
Notes:
1–Annually recurring revenue source.
2–HMGP project schedules are currently under development pending FEMA approval; HMGP funds will be allocated according to project schedules.
3–Berm to Barrier project schedules are currently under development and may be refined at a later date; funds will be distributed according to final project schedules.
4–Represents funds encumbered in prior years.

Table ES-2. Projected Three-Year Expenditures[1] (FY 2012–FY 2014).

Program/Funding Source	FY 2012	FY 2013	FY 2014	Program Total (FY 2012–FY 2014)
CWPPRA Projects[2]	$19,837,819	$20,000,000	$20,000,000	$59,837,819
WRDA Projects	$21,143,566	$19,489,602	$8,600,000	$49,233,168
CIAP Projects	$70,009,943	$67,288,730	$16,820,270	$154,118,943
Remaining Surplus '07 Projects[3]	$72,501,716	$45,433,365	$10,128,725	$128,063,807
Remaining Surplus '08 Projects[3]	$26,630,598	$47,551,966	$12,803,735	$86,986,299
Remaining Surplus '09 Projects[3]	$16,763,783	$10,188,794	$4,926,250	$31,878,826
Community Development Block Grants	$5,780,769	$12,561,714	$5,217,517	$23,560,000
Hazard Mitigation Grant Program[4]	$45,270,000	$0	$0	$45,270,000
GNO-HPS 30-Year Payback	$35,000,000	$80,000,000	$80,000,000	$195,000,000
Berm to Barrier[5]	$36,266,667	$54,733,333	$9,000,000	$100,000,000
OM&M- Projects[6]	$13,453,166	$10,185,160	$6,665,571	$30,303,896
OM&M- Marine Debris Removal (FEMA)	$8,650,000	$0	$0	$8,650,000
OM&M- Hurricane Damage Repairs (FEMA)	$1,850,000	$0	$0	$1,850,000
Lost Lake Vegetative Plantings (USFWS)	$98,750	$0	$0	$98,750
Ongoing Programs[6]	$29,697,972	$29,000,000	$29,500,000	$88,197,972
Support/Emergency Response/ Reserve[6]	$14,543,901	$17,725,000	$17,725,000	$49,993,901
Operating Costs	$23,773,630	$24,462,249	$25,206,624	$73,442,503
Total Planned Expenditures	$441,272,280	$438,619,912	$246,593,692	$1,126,485,884

Notes:
1–Represents proposed expenditures provided that commensurate level of funding is received.
2–Because CWPPRA projects compete for funding annually, CWPPRA expenditures as presented in Appendix B (which include projected expenditures for approved projects only) do not adequately capture likely CWPPRA expenditures in outlying years. The State's estimated CWPPRA expenditures for FY 2013–FY 2014 are therefore based on prior years' expenditures.
3–Represents expenditures not otherwise captured in this table.
4–HMGP project schedules are under development pending FEMA approval; HMGP funds will be allocated according to project schedules.
5–Berm to Barrier project schedules are currently under development and may be refined at a later date; funds will be distributed according to final project schedules.
6–FY 2012 expenditures partially funded by surplus funds.

Figure ES-1. Projected FY 2012 Expenditures by Project Phase.



FY 2012 Total Expenditures

- Planning ($13.5 million)
- Engineering and Design ($32.9 million)
- Construction ($223.3 million)
- Operation, Maintenance and Monitoring ($28.3 million)
- Ongoing Programs and Initiatives ($39.2 million)
- Operating Costs ($23.8 million)

Total Expenditures $361 million

- Construction includes Beneficial Use ($7.0 million), Donations for Mitigation ($1.6 million), Vegetative Plantings ($400,000), and Lost Lake Vegetative Plantings ($98,750)
- OM&M includes BIMP ($3.5 million), Marine Debris Removal ($8.7 million) and Hurricane Damage Repairs ($1.9 million)
- Ongoing Programs includes Support/Emergency Response/ Reserve ($14.5 million)
- Total excludes HMGP ($45.3 million) and GNO-HPS Payback ($35 million)

Preview of the 2012 Master Plan

Chapter 4 of the FY 2012 Annual Plan presents a preview of the 2012 Master Plan. The State's first Master Plan, released in 2007, represented an initial step in identifying a strategy for achieving a sustainable coast. However, the 2007 Master Plan was a conceptual document and was not intended to address all of the complex issues that coastal Louisiana faces. To accommodate the dynamic nature of coastal processes, the Louisiana Legislature mandated the update of the Master Plan every five years. To comply with this mandate, the first update of the Master Plan must be submitted to the Legislature in March 2012.

The 2012 Master Plan will present a new planning approach based on the development of combinations of protection and restoration projects that achieve multiple objectives (integrated planning) with a sequencing order that will ensure that the most important projects are constructed first (prioritization). This new approach employs a transparent, quantitative plan development process and incorporates a broad range of uncertainties. The 2012 Master Plan will be firmly grounded in reality and will acknowledge that the State cannot address all of the protection and restoration concerns that coastal Louisiana currently faces. Resource constraints and tradeoffs will be evaluated to deliver an action plan that provides optimum benefit with the available resources.

The 2012 Master Plan will advance beyond the 2007 Master Plan by using Project-effects Models and a Prioritization Tool to illustrate the practical implications of different project options and tradeoffs. Understanding these options requires the tools to consider thousands of possible combinations of projects, uncertainties, and scenarios. The tools' results can be translated so that citizens and State leaders can take stock of how projects will perform in the real world. These tools will not make decisions for the State, but they will provide scientifically-based information about how individual projects and collections of projects will help achieve the State's coast-wide goals.

To support the development of goals and establish specific project outcomes, the State is working on a coastal vision that will integrate the four objectives of the 2007 Master Plan as well as principles gleaned from the past two decades of coastal planning in Louisiana. The vision will show where the State plans to invest in flood risk reduction, maximize river use in coastal basins, manage salinity in critical areas, use sediment to bolster the coastal landscape, and support coast-dependent industries.

The 2012 Master Plan is not the only large-scale planning effort currently under development in coastal Louisiana. The State is also a partner in several other planning efforts, including the Gulf Coast Ecosystem Restoration Task Force convened by the White House and the NRDA process aimed at restoring natural resources injured by the Deepwater Horizon oil spill. Members of the Master Plan Delivery Team (MPDT) are coordinating with the planning teams for these other efforts and are working to ensure that the goals of the 2012 Master Plan support, and are supported by, these other initiatives.

The State is bringing in partners to ensure that the 2012 Master Plan is reviewed by nationally-known experts while remaining rooted in the daily realities experienced by coastal residents. The 2012 Master Plan will also employ a comprehensive outreach and engagement effort to involve citizens and local leaders in the Master Plan Update process. This effort provides numerous ways for Louisiana citizens to become engaged in the process, including direct contact with the MPDT, use of the new CPRA/OCPR website, and participation in public meetings.

1. Introduction

Louisiana's coastal wetlands cover an area roughly the size of Connecticut. Its coastal lands and waters provide billions of dollars in resources and services to the nation annually, including:

- Largest bulk cargo port complex in the world;
- Two storage sites for the U.S. Strategic Petroleum Reserve;
- Over $3 billion in commercial and recreational fisheries; and
- Over $200 million in ecotourism revenues.

Recovery, Resourcefulness, Resiliency

Louisiana has the largest expanse of coastal wetlands in the lower 48 states. More than 5,300 square miles of coastal swamp and marsh are present in coastal Louisiana, an area nearly the size of the state of Connecticut. Coastal Louisiana is also home to the Mississippi River Delta, the largest delta in North America. In addition to providing a home for nearly half the population of the state, Louisiana's coast provides an estimated $12-47 billion annually in natural resources and services to the nation,[1] truly earning the name "America's Wetland." Yet this vital natural resource is greatly imperiled, and its value to the nation declines more each year in the wake of Louisiana's coastal land loss crisis. Since the 1930s, over 2,300 square miles of wetlands in coastal Louisiana have been lost, an area larger than the state of Delaware (Figure 1-1). The effects of four major hurricanes (Katrina, Rita, Gustav, and Ike) within a three-year period (2005-2008) resulted in a cumulative net loss of 328 square miles of land, an amount equivalent to many decades of coastal land loss during periods of low storm frequency.[2] Louisiana's coastal crisis was further compounded in 2010 by the Deepwater Horizon oil spill, which released millions of barrels of oil into the Gulf, resulting in the closure of State and Federal waters to fishing and affecting hundreds of miles of shoreline, bayous, and bays in Louisiana. These catastrophic events have come at a time of severe budget crisis for the State of Louisiana (State), when funding for coastal protection and restoration activities is more difficult to procure than ever before.

With more of its precious coastal assets lost each year, and with limited funds available, the State is under increased pressure to identify new tools and resources to protect and restore coastal environments, assets, and communities in a resilient manner to ensure that Louisiana's vital coastal resources are better equipped to withstand future threats. However, opportunities arise even in the face of hardship, and the State is now uniquely poised to develop and implement these tools and revamp its coastal program with the 2012 Master Plan. The Fiscal Year (FY) 2012 Annual Plan provides an update on the State's efforts to protect and restore its coast, and describes the short-term and long-term results that citizens can expect to see as the State progresses toward a sustainable coast.

RESOURCES

LOUISIANA'S COASTAL RESOURCES:

WHAT'S AT STAKE

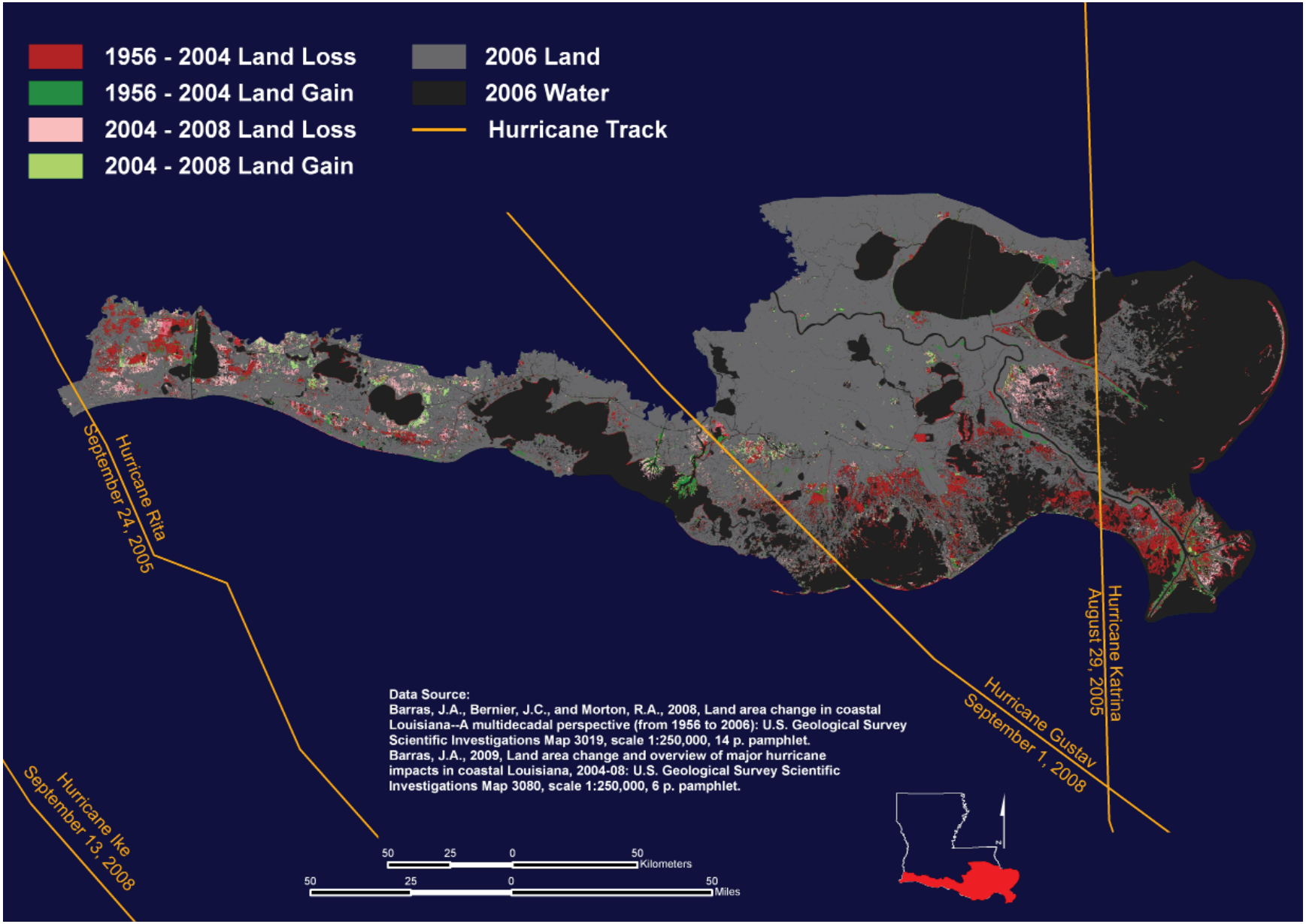
Coastal Louisiana currently contains about 40 percent of the coastal marsh in the lower 48 states, but accounts for about 90 percent of coastal wetland loss in that region. Louisiana's coastal crisis is not merely a state concern, but a national concern. At stake are resources and industries that support millions of jobs nationwide, including:

- Highest rate of crude oil production and second highest rate of natural gas production in the nation (includes Outer Continental Shelf production);
- Over 450 million tons of waterborne commerce (18 percent of all waterborne commerce in the nation);
- Largest port in the nation in terms of total tonnage shipped (Port of South Louisiana);
- Five of the 15 largest ports in the nation;
- Nearly 3,000 miles of deep and shallow draft navigation channels to support waterborne commerce;
- Over 20 percent of the total commercial fishing catch in the lower 48 states;
- A robust recreational fishing industry with nearly $2 billion in annual revenues;
- Largest fur harvest in the nation;
- Winter habitat for millions of migratory waterfowl;
- Nine National Wildlife Refuges covering a total area of 280,000 acres; and
- Nearly two million residents (nearly half of the state's population).

[1] Batker, D., de la Torre, I., Costanza, R., Swedeen, P., Day, J., Boumans, R., Bagstad, K., 2007. Gaining Ground. Wetlands, Hurricanes and the Economy: The Value of Restoring the Mississippi River Delta. Earth Economics. 97 pp.

[2] Barras, J.A., 2009, Land area change and overview of major hurricane impacts in coastal Louisiana, 2004-08: U.S. Geological Survey Scientific Investigations Map 3080, scale 1:250,000, 6 pp. pamphlet.

Figure 1-1. Map of Coastal Land Change in Louisiana from 1956-2008.



Source: USGS

Origin of the Annual Plan

With the passage of Act 8 of the First Extraordinary Session of 2005 (Act 8), the Louisiana Legislature mandated the integration of hurricane protection activities (e.g., levee construction) and coastal restoration activities (e.g., river diversions or marsh creation). Act 8 also created the Coastal Protection and Restoration Authority (CPRA) and tasked it with oversight of these activities.

> In addition to supporting numerous commercially important services, coastal wetlands provide a valuable storm surge buffer to coastal communities.

In 2007, in response to Act 8's directive, the State released *Integrated Ecosystem Restoration and Hurricane Protection: Louisiana's Comprehensive Master Plan for a Sustainable Coast* (2007 Master Plan). The 2007 Master Plan established four planning objectives as benchmarks for implementing coastal protection and restoration projects and identified large-scale measures needed to achieve a sustainable coast. The 2007 Master Plan was passed unanimously in the Louisiana Legislature and its primacy was subsequently reaffirmed by Governor Bobby Jindal in Executive Order BJ2008-7, which directed all State agencies to administer their activities, to the maximum extent possible, in accordance with the Master Plan's recommendations.

Although the 2007 Master Plan broke new ground by identifying a strategy for achieving a sustainable coast, it was not intended to address the numerous complex issues that coastal Louisiana faces. To accommodate the dynamic nature of coastal processes, Act 8 specifies that the Master Plan is a living document that will be updated approximately every five years. These updates will incorporate new data and planning tools as they become available. To comply with the mandate set forth in Act 8, the first update of the Master Plan must be submitted to the Louisiana Legislature in March 2012.

Act 523 of the 2009 Regular Legislative Session directed the CPRA to produce an Annual Plan each year that inventories projects, presents implementation schedules for these projects, and identifies funding schedules and budgets. The CPRA produces the Annual Plan through the Office of Coastal Protection and Restoration (OCPR), which functions as the execution office of the CPRA.

Evolution of the Annual Plan

Historically, the State's Annual Plans for coastal projects provided: 1) an inventory of projects for which the State planned to expend money and resources for a given fiscal year, and 2) recommendations for allocating Coastal Protection and Restoration Funds to those projects. The FY 2010 Annual Plan was the first plan to address the new integrated planning and prioritization directives specified in Act 8. The FY 2012 Annual Plan fulfills the legislative mandate of Act 8 by presenting OCPR's three-year program for funding and implementing projects during FY 2012–FY 2014. Additionally, the FY 2012 Annual Plan builds on the process first begun in the FY 2010 plan and provides an expanded discussion of OCPR's progress in protecting and restoring the coast and a look-ahead to the 2012 Master Plan. Chapter 2 provides a summary of the State's progress in program implementation as well as the challenges it encountered during FY 2011. Chapter 3 presents an implementation plan for FY 2012–FY 2014, including coastal project schedules and a detailed projection of how the State expects to receive and allocate funds for the coastal program during this period. Chapter 4 describes the Master Plan Update process and timeline and provides a look-ahead to the key elements that will be presented in the 2012 Master Plan. As with the FY 2010 and FY 2011 Annual Plans, the FY 2012 Annual Plan provides detailed information on OCPR projects in Appendix A.

This badly degraded coastal marsh in lower Terrebonne Parish illustrates the severity of Louisiana's coastal land loss. Fifty years ago this was a landscape of nearly unbroken marsh. Now only scattered hummocks of native marsh remain, and the spoil banks of the numerous navigation and oil field canals that were dredged through the marsh form linear "islets" of high ground in the open water.

PLAN FEATURES

FY 2012 ANNUAL PLAN FEATURES

Like past Annual Plans, the FY 2012 Annual Plan provides project schedules and budget information. Additionally, the FY 2012 Annual Plan presents a discussion of the State's progress in protection and restoration activities in the previous fiscal year and provides a look-ahead to the 2012 Master Plan. Specific features of the FY 2012 Annual Plan include the following:

As was the case with the 2007 Master Plan and past Annual Plans, the FY 2012 Annual Plan represents a snapshot in time of an ever-evolving program that changes with the state of science and engineering. The FY 2012 Annual Plan should therefore be viewed as one part of a process that will evolve as the State's understanding of coastal processes and interactions advances. Many of the new tools, initiatives, and concepts presented in Chapter 4 are still under development and will not be finalized until the completion of the Master Plan Update in 2012. However, the FY 2012 Annual Plan represents a benchmark in developing the necessary tools and framework for achieving a resilient, sustainable, and productive coast.

The 2012 Master Plan provides a key opportunity to implement a systems-based planning approach, allowing the State to engage in performance-based planning.

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2. Progress and Challenges in Fiscal Year 2011

In 2005, recognizing the severity of the crisis facing coastal Louisiana, the State began an aggressive campaign to expedite and increase coastal protection and restoration efforts. The State's accelerated efforts were further augmented in 2007, 2008, and 2009 with the infusion of $790 million in State budget surplus funds to support coastal protection and restoration activities. These surplus allocations provided a much-needed boost to the coastal program, enabling many projects to proceed to construction or otherwise progress ahead of their original schedules. Consequently, the State has experienced an approximately 1,500 percent increase in planning, design, and construction work on coastal projects since 2007. This increase is reflected in project activity in FY 2011, in which 98 projects were in some stage of implementation, including 30 projects in construction (Figures 2-1 through 2-7).

In addition to progress in implementing on-the-ground projects, the State also made significant progress in FY 2011 in ongoing programs and initiatives that are critical to the long-term success of the coastal program. These programs and initiatives help the State advance its knowledge of coastal processes, enabling the State to build better projects on the ground. Additionally, the State is also working to develop markets to generate revenue from the beneficial effects of projects, providing both added incentives for restoration activities and new sources of funding for coastal projects. Finally, to improve transparency to stakeholders and the public, the State is implementing a comprehensive project tracking system, @task, that will allow unprecedented access to all aspects of the coastal program.

This progress was made in the face of severe challenges, including the Deepwater Horizon oil spill, which posed an immediate threat to coastal Louisiana's natural resources of a magnitude never before experienced in the state. The State responded quickly and effectively to the oil spill by implementing a series of emergency actions. In the aftermath of the spill, the State is now seeking to maximize its investment in oil spill recovery activities by implementing restoration projects that build on, or work synergistically with, these efforts. Yet the State now faces new challenges, including maintaining the current momentum in a fund-limited environment.

This chapter describes the progress that the State has made in these areas in FY 2011. For a detailed discussion of the State's FY 2012 implementation

Figure 2-1. Construction of Gulf Intracoastal Waterway (GIWW) Bank Restoration of Critical Areas in Terrebonne Parish (TE-43 [EB]).

This CIAP project involved the closure of four breaches (with a total length of 14,500 linear feet) on the south bank of the GIWW. The breach closures will help prevent the break-up of adjacent thin-mat floating marshes from wave and current action.

plan, funding outlook, and project details, readers are directed to Chapter 3 and Appendices A (project summaries) and B (three-year program expenditure projections).

Progress on the Ground

A total of 30 coastal protection and restoration projects were under construction in FY 2011, of which 10 were completed. Table 2-1 lists the projects under construction in FY 2011, and Table 2-2 lists the projects that were completed during that time. Photographs of representative protection and restoration projects are presented in Figures 2-1 through 2-3, and 2-6 through 2-7. Figures 2-4 and 2-5 present the locations of projects under construction and completed in FY 2011, respectively.

Protection Projects under Construction

The State began or continued construction on nine protection projects in FY 2011, of which one was completed.

Most ongoing hurricane protection projects in coastal Louisiana are Federally funded, including the multiple components of the Greater New Orleans Hurricane Protection System (GNO-HPS). The GNO-HPS seeks to provide a 100-year level of flood protection for the greater New Orleans area by upgrading existing flood protection features (such as levees and floodwalls) and introducing new features authorized by Congress and deemed necessary to complete the system. As the non-Federal sponsor, the State has contributed to these Federal projects by reviewing plans and specifications, providing construction inspection assistance, and funding lands, easements, rights-of-way, relocations, and disposal areas (LERRDS) activities with a $293.3 million allocation of State budget surplus funds. The State has also set aside additional surplus funds to expedite construction of other hurricane protection projects (including the Morganza to the Gulf and Larose to Golden Meadow projects).

Several of the protection projects under construction in FY 2011 are highlighted in this chapter.

Figure 2-2. Construction of East Grand Terre (BA-30).

This CIAP project dredged sand from an offshore source and pumped it onto the island to restore the barrier shoreline, create barrier island acreage, and construct a marsh platform. The project repaired breaches and tidal inlets in the shoreline and reinforced the existing shoreline with sand.

Table 2-1. Projects in Construction in FY 2011.

State ID	Project Name	Construction Start Date	Construction End Date	Project Type	State Construction Budget
CWPPRA Phase 2 Projects					
BA-20-CU4	Jonathan Davis Wetland Protection	23-Jul-10	25-Oct-11	Restoration	$2,906,343
BA-27-CU1	Barataria Basin Landbridge Shoreline Protection, Phase 3–CU7 and CU8	28-Oct-10	1-Feb-12	Restoration	$5,550,000
BA-38	Pelican Island and Pass La Mer to Chaland Pass Restoration	8-Jun-11	31-May-13	Restoration	$4,464,317
BA-41	South Shore of the Pen Shoreline Protection and Marsh Creation	14-Aug-09	1-Aug-11	Restoration	$2,433,757
BA-42	Lake Hermitage Marsh Creation	22-Jan-09	10-May-13	Restoration	$5,498,186
ME-20	South Grand Chenier Hydrologic Restoration	26-Jan-10	16-Oct-13	Restoration	$3,595,502
TE-34	Penchant Basin Natural Resources Plan, Increment 1	6-Apr-10	29-Jul-11	Restoration	$1,458,457
TE-39-CU1	South Lake Decade Freshwater Introduction–CU1	7-Oct-10	13-Jul-11	Restoration	$452,784
TE-48B	Raccoon Island Shoreline Protection and Marsh Creation–Phase B	23-Jan-08	21-Oct-11	Restoration	$2,282,521
CWPPRA Demonstration Projects					
LA-08	Bioengineered Oyster Reef Demonstration	14-Apr-11	23-Mar-12	Restoration	$39,065
TE-53	Enhancement of Barrier Island Vegetation Demonstration	15-May-10	30-Sep-11	Restoration	$644,392
CIAP Projects					
PO-36 (EB)	Orleans Land Bridge Shoreline Protection and Marsh Creation	8-Apr-11	8-Aug-13	Restoration	$25,857,541
State-Only Projects					
TE-64	Morganza to the Gulf[1]	27-Jan-09	1-Jun-13	Protection	$97,730,000
TE-65	Larose to Golden Meadow	7-Jan-09	28-Sep-12	Protection	$19,820,000
	Raising of LA-23 at LaReussite	10-Jun-11	15-Jul-11	Protection	$1,200,000
GNO-HPS Projects[2]					
BA-56	West Bank and Vicinity	6-Nov-08	31-Jan-13	Protection	$535,500,000
PO-55	Lake Pontchartrain & Vicinity, IHNC Storm Surge Barrier LPV-IHNC-02	1-May-09	30-Jun-12	Protection	$1,300,000,000
PO-56	Lake Pontchartrain and Vicinity (HPO)	22-Sep-08	31-Dec-11	Protection	$2,935,344,422
PO-63	Lake Pontchartrain and Vicinity (PRO)	4-May-10	1-Nov-13	Protection	$760,000,000
PO-64	Lake Pontchartrain and Vicinity, Seabrook Lock LPV-IHNC-01	1-Aug-10	31-Dec-11	Protection	$167,000,000

Notes:
1–Construction end date represents portions of project currently funded with State surplus funds only; project will continue construction beyond this period.
2–Total construction cost is provided. State contribution to total construction cost was in the form of a $293.3 million surplus allocation to cover LERRDS costs.

Table 2-2. Projects Completed in FY 2011.

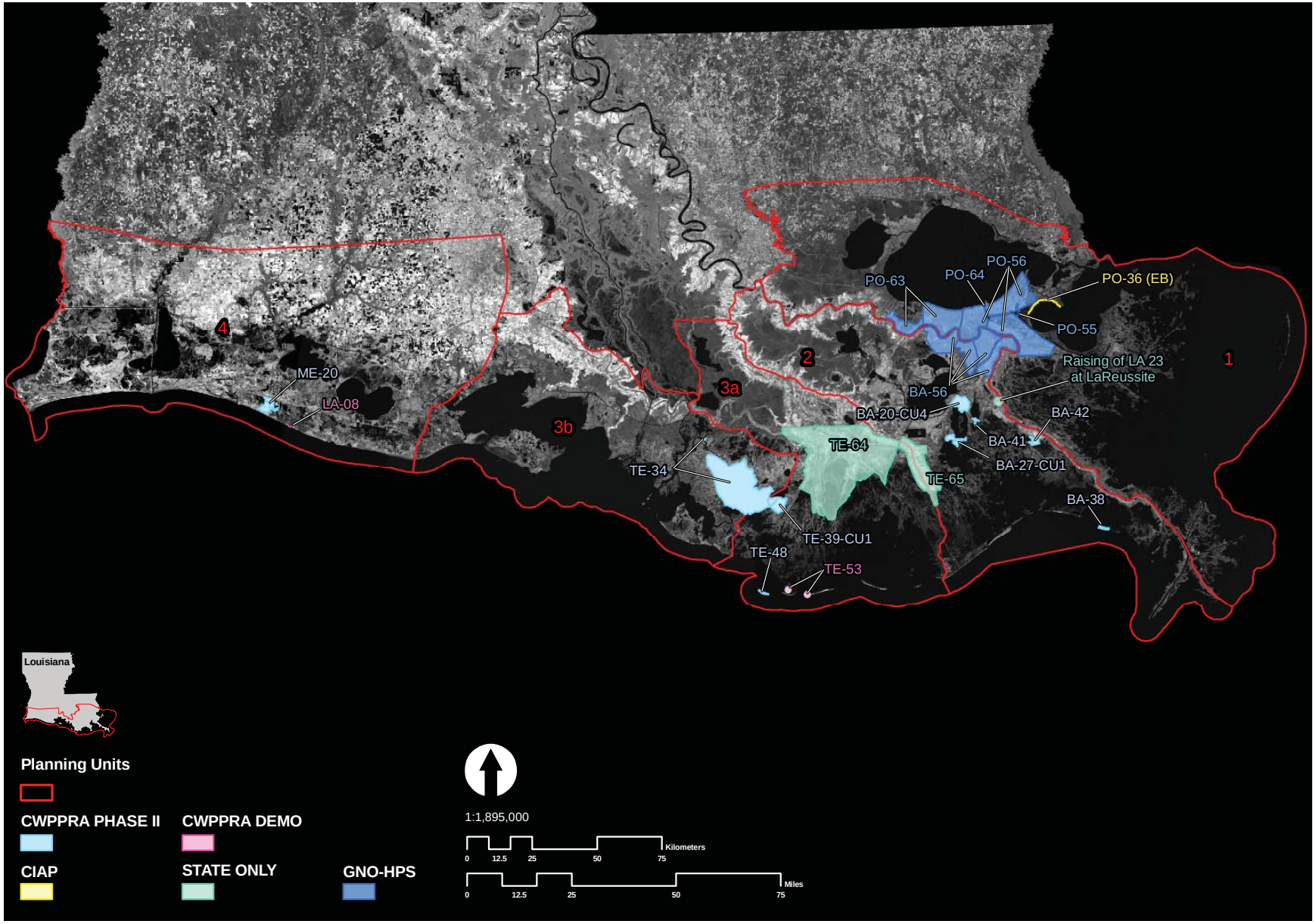
State ID	Project Name	Construction Start Date	Construction End Date	Project Type	State Construction Budget
CWPPRA Phase 2 Projects					
BA-39	Mississippi River Sediment Delivery System–Bayou Dupont	14-Feb-08	2-Dec-10	Restoration	$4,335,103
CS-04A	Cameron-Creole Levee Maintenance	25-Jun-10	6-Jun-11	Restoration	$1,890,000
TV-21	East Marsh Island Marsh Creation	22-Jan-09	19-Jan-11	Restoration	$3,003,350
CIAP Projects					
BA-30	East Grand Terre	20-Feb-07	15-Jun-11	Restoration	$31,000,000
CS-35 (EB)[1]	Marsh Creation via Beneficial Use	26-Aug-09	17-Dec-10	Restoration	$3,660,195
TE-43 (EB)	GIWW Bank Restoration of Critical Areas of Terrebonne	19-Oct-09	6-Aug-10	Restoration	$7,600,000
BA-55	LA-1 Improvements- Fourchon to Leeville Bridge	15-Feb-07	25-Oct-10	Infrastructure	$33,000,000
State-Only Projects					
PO-61	St. Bernard Parish 40 Arpent Levee Repairs	12-May-08	28-Feb-11	Protection	$5,000,000
BA-25	Bayou Lafourche Freshwater Introduction	2-Jun-10	30-Jun-11	Restoration	$19,800,000
CS-34[1]	Black Lake Supplemental Beneficial Use Disposal Area	26-Aug-09	17-Dec-10	Restoration	$16,034,329
LA-21.1	Beneficial Use 2008- Sabine Cycle 2	28-Apr-09	31-Aug-10	Restoration	$6,636,312

Notes:
1–Components of the same project.

Figure 2-3. Leon Theriot Lock, a Component of Larose to Golden Meadow Hurricane Protection (TE-65).

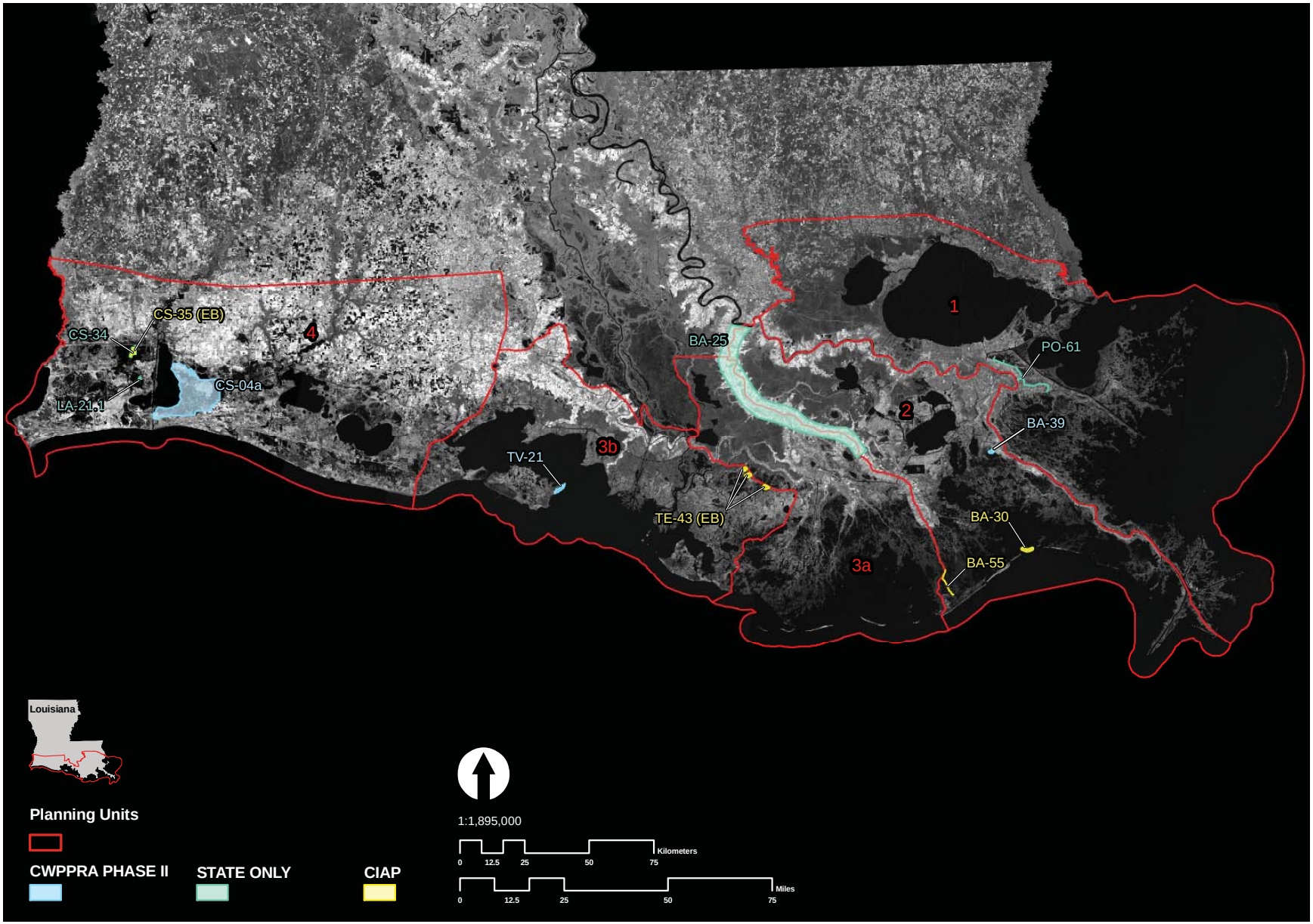
This project received $19.8 million in funding from State budget surpluses and when complete will provide 100-year protection to communities along lower Bayou Lafourche.

Figure 2-4. Projects in Construction in FY 2011.



Source: USGS

Figure 2-5. Projects Completed in FY 2011.



Source: USGS

Figure 2-6. Construction of the Lake Pontchartrain and Vicinity, Inner Harbor Navigation Canal (IHNC) Storm Surge Barrier (PO-55).

This project, which provides storm surge protection to eastern Orleans and St. Bernard Parishes, also enhanced adjacent wetlands with organic material dredged from waterways in preparation for new construction.

Larose to Golden Meadow, Louisiana, Hurricane Protection (TE-65). This project is located along Bayou Lafourche between the communities of Larose and Golden Meadow in Lafourche Parish (PU1 and PU2). When complete, the project will provide a 100-year level of hurricane protection to approximately 2,300 acres of residential and commercial land and 9,400 acres of agricultural land at a total cost of $116 million. Project features include a ring levee approximately 40 miles long that parallels the east and west banks of Bayou Lafourche and extends from Larose in the north to just south of Golden Meadow in the south. Floodwalls have been constructed in areas where significant development and limited right-of-way prevented the construction of levees. The project also provides for the construction of navigable floodgates on Bayou Lafourche at the upper and lower limits of the project area (Figure 2-3 on page 11). To support construction, the State allocated $19.8 million in funding from the 2008 and 2009 budget surpluses. The project is scheduled for completion in September 2012.

Lake Pontchartrain and Vicinity, Inner Harbor Navigation Canal (IHNC) Storm Surge Barrier (PO-55). This GNO-HPS component (Figure 2-6) is designed to reduce storm damage to New Orleans East, metropolitan New Orleans, the Ninth Ward, and St. Bernard Parish (PU1). This project consists of a 10,000-foot-long surge barrier (similar to, but larger than, a floodwall) near the confluence of the Gulf Intracoastal Waterway (GIWW) and the Mississippi River Gulf Outlet (MRGO). Navigation gates will be constructed where the barrier crosses the GIWW and Bayou Bienvenue to reduce the risk of storm surge coming from Lake Borgne and/or the Gulf of Mexico. Another navigation gate is planned for the Seabrook vicinity where the IHNC meets Lake Pontchartrain to block storm surge from entering the IHNC from the lake. Other project features include a concrete floodwall with navigation gates at Bayou Bienvenue and the GIWW. The project also features marsh enhancement with dredged organic material obtained from waterways during preparation for new construction. This dredged material is placed in nearby wetlands to enhance environmental conditions. Project construction began in May 2009 and is scheduled for completion in June 2012 at a total cost of $1.3 billion. LERRDS costs for the project were funded by State surplus funds.

Restoration Projects under Construction

The State began or continued construction on 20 restoration projects in FY 2011, of which eight were completed. Several of these projects are discussed below.

Orleans Land Bridge Shoreline Protection and Marsh Creation (PO-36 [EB]). This Coastal Impact Assistance Program (CIAP) project is located in eastern Orleans Parish along the Lake Borgne shoreline between Bayou Bienvenue and Alligator Point (PU1). The goal of the project is to protect approximately 1,400 acres of marsh on the East Orleans Land Bridge, providing additional protection to Orleans and St. Bernard Parish communities and infrastructure by reducing the rate of shoreline erosion. Total project cost is $42 million, with funding being provided by both the State ($27.2 million) and Orleans Parish ($14.8 million). Project features include construction of 41,000 feet of rock breakwater and the beneficial use of 171,000 cubic yards of concrete obtained from the demolition of the old Interstate 10 bridge for shoreline protection along Lake Borgne. Project construction is scheduled to be completed in July 2013 at a cost of $41 million.

East Marsh Island Marsh Creation (TV-21). This Coastal Wetland Planning, Protection and Restoration Act (CWPPRA) project is located at the east end of Marsh Island Wildlife Management Area and Game Reserve in Iberia Parish (PU3b). The project is designed to restore brackish marsh habitat in open water areas caused by Hurricane Lili (2002). The project was able to more than double the area of proposed created/nourished marsh through the use of $5 million in unused CWPPRA construction funds. Project features include creation or nourishment of 1,159 acres of marsh at a cost of $17.6 million. Dredged material was pumped to the project site over a distance of 3-6 miles using 31,520 linear feet (LF) of pipe. The effects of the project are estimated to reduce loss rates of interior marsh in the project vicinity by 50 percent. The project was designed to provide a synergistic effect with the adjacent CWPPRA project Marsh Island Hydrologic Restoration (TV-14), which was constructed in 2001.

Black Lake Supplemental Beneficial Use Disposal Area (CS-34)/Marsh Creation via Beneficial Use (CS-35 [EB]). This project, which received funding from both CIAP and State surplus dollars, involves marsh creation in the northwest corner of Black Lake (Cameron Parish, PU4) through the beneficial use of dredged material (Figure 2-7). The State paid the incremental cost above the Federal standard to beneficially place sediment dredged by the U.S. Army Corps of Engineers (USACE) to maintain Calcasieu River and Pass. The dredged material was pumped a distance of 10.2 miles, the longest distance ever undertaken by the USACE New Orleans District. Project features include nearly 17,300 LF of earthen containment dike, 4,000 LF of interior weir, and the placement of approximately

CFCI

COASTAL FOREST CONSERVATION INITIATIVE (CFCI)

In FY 2011, the State began implementing the CFCI, a program that conserves critical coastal forest habitat for storm damage reduction and the protection of rare, declining, or ecologically significant habitats. The program is funded through CIAP, which provides $16 million to develop and implement this program. The $16 million was allocated for the establishment of a pilot program, which the State hopes to expand into a permanent program upon the receipt of additional funding. The CFCI is a completely voluntary program; its primary focus is to acquire land rights (fee title or perpetual conservation easement) from willing landowners to address threats to conversion of tracts that provide significant ecological value, serve storm damage reduction functions, and/or protect hurricane/storm protection features. The initiative may also include implementation of small-scale projects to reforest disturbed sites and to restore or enhance forest sustainability. The initial application period for candidate parcels closed on July 31, 2010, during which a total of 21 applications representing nearly 65,000 acres were submitted. Within the first two weeks after the application period closed, five additional landowners representing approximately 40,000 acres expressed interest in a subsequent application period. This response indicates that additional application periods would likely be warranted and successful. Following evaluation and selection, land rights activities and landowner negotiations will begin. Property acquisition could begin in Spring 2011.

1.9 million cubic yards of dredged material to create about 440 acres, making it the largest beneficial use project undertaken to date by the State. Construction was completed in November 2010 at a total cost of $19.7 million, including $3.7 million in State CIAP Funds and $16 million in State surplus funds.

Infrastructure Projects under Construction

The Energy Policy Act of 2005 authorizes the use of up to 23 percent of total CIAP funds for onshore infrastructure projects and public service needs. One CIAP infrastructure project was constructed in FY 2011. This project, LA-1 Improvements–Fourchon to Leeville Bridge (BA-55), involves construction of a five-mile long, two lane elevated highway between Leeville and Port Fourchon in Lafourche Parish to address the transportation impacts from hurricane-related flooding and erosion. The project helps secure connectivity between U.S. Highway 90 and Port Fourchon, the busiest intermodal energy port in the nation. The project was constructed with both State and Parish CIAP funds at a total cost of $35.1 million.

Completed Projects in Operation, Maintenance, and Monitoring

Following construction, the State assumes all or a portion of the operation, maintenance, and monitoring (OM&M) costs for CWPPRA, State-only, and Water Resource Development Act (WRDA) projects according to the various cost-share agreements. In FY 2011, the State expended funding on the operation and maintenance of 84 constructed projects. The State also conducted monitoring operations for 54 constructed projects.

In addition to operating and maintaining constructed projects, the State monitors project performance and coastwide conditions using its Coastwide Reference Monitoring System for Wetlands (CRMS-Wetlands). This system includes a distributed network of reference sites that collect data on a range of ecological conditions, including hydrology, herbaceous marsh vegetation, forested swamp vegetation, soil properties, soil accretion, and surface elevation. This network provides data that may be used both for evaluating individual projects and for assessments of the overall effect of projects on coastal ecosystems.

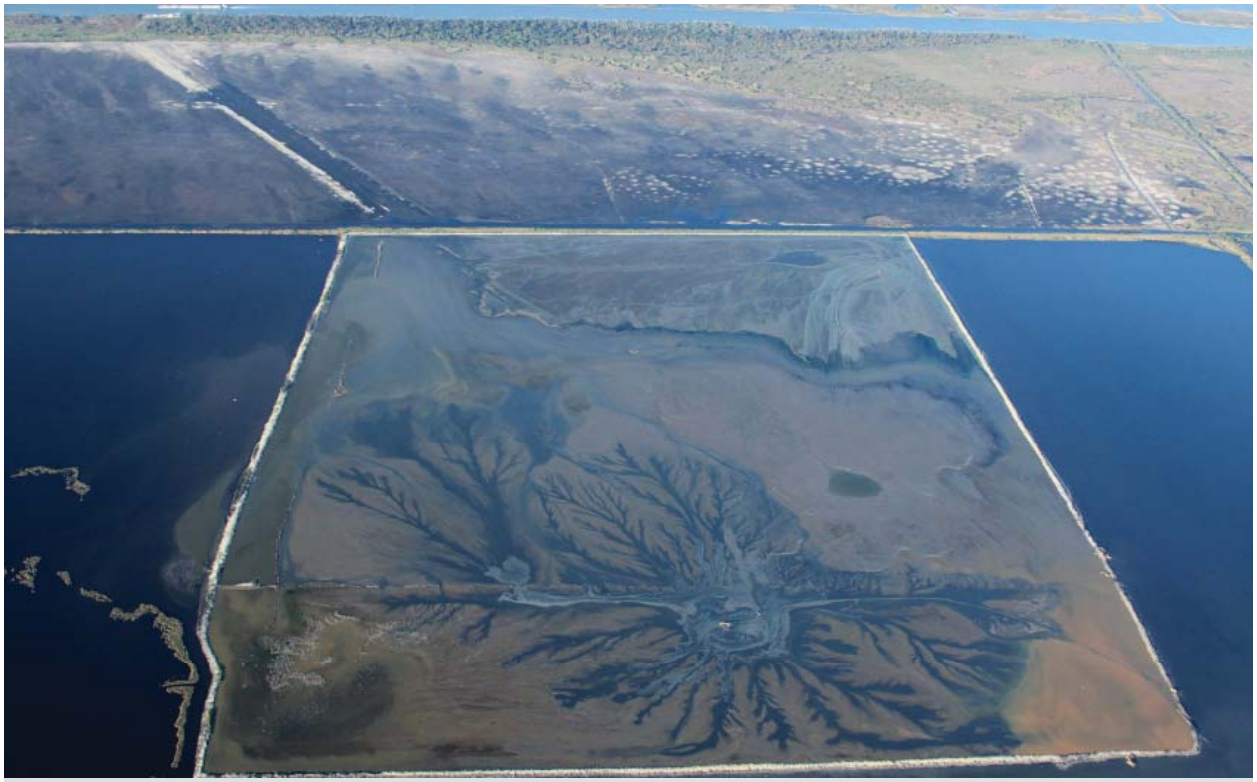


Figure 2-7. Marsh Creation Site for Black Lake Supplemental Beneficial Use Disposal Area (CS-34).

This project resulted in the beneficial use of dredged material to create about 440 acres of marsh. The use of dredged sediments for marsh creation is a key strategy for sustaining coastal Louisiana that also exemplifies the synergy that can exist between navigation and environmental restoration.

Rising to Challenges

The Deepwater Horizon oil spill presented an entirely new challenge to coastal Louisiana. The State responded with a robust effort to safeguard its coast from the effects of oil. In June 2010, the State began construction of barrier berms along the Chandeleur Islands east of the Mississippi River (East Barrier Berm) and from Shell Island to Scofield Island west of the river (West Barrier Berm). The State now plans to utilize the berm material and approximately $100 million of the funds set aside for berm construction to convert the temporary berm features into the more resilient barrier island features that were designed as CWPPRA projects. Barrier islands are the first line of defense against storm surge, and restoration of Louisiana's barrier island system is a critical component of the State's coastal program. Consequently, Pelican Island and Pass La Mer to Chaland Pass Restoration (BA-38), currently being constructed under CWPPRA, will receive additional funds to construct a wider footprint if needed. The CWPPRA project Riverine Sand Mining/Scofield Island Restoration (BA-40) will be constructed using State funds. Additionally, the State is investigating additional restoration actions on Shell Island and the Chandeleur Islands. Information on the above mentioned activities and the current state of Louisiana's barrier islands is presented in the Barrier Island Status Report (Appendix C).

In September 2010, Secretary of the Navy Ray Mabus released the Gulf Coast Recovery Plan, a White House-initiated effort to chart the course for recovery in areas impacted by the Deepwater Horizon spill. A key recommendation of this report was for Congressional dedication of a significant amount of any civil penalties obtained from responsible parties under the Clean Water Act of 1977 (CWA) to the recovery of the impacted region. The State is working with stakeholders to identify projects that could be funded if these fines are allocated to environmental restoration actions in the Gulf of Mexico states.

Planning for the Future: Progress in Ongoing Programs

Advancing the State of Science and Technology

Through OCPR's Louisiana Applied Coastal Engineering and Science (LACES) Division, the State supports a number of ongoing programs that further the current state of knowledge by identifying resource needs, researching and addressing uncertainties, and informing project design. LACES is responsible for coordinating ongoing science (natural, physical, social, economic, and other sciences) and engineering resources, and identifying and facilitating advances in those disciplines where needed. In FY 2011, LACES continued development of the Louisiana Sediment Management Plan (LASMP) to more effectively identify and manage the limited sediment resources that are needed for coastal protection and restoration in Louisiana. This plan inventories existing sediment resources (offshore, inshore, riverine), develops sediment budgets, identifies and resolves policy and regulatory obstacles, and provides information in an understandable format so that informed decisions can be made regarding the management of this limited resource.

Subsidence, a principal influence on coastal geological stability, has a number of natural and human-induced causes. Clarifying the relative influence of those causes is important for maximizing protection and restoration project success. LACES managed efforts in FY 2011 to quantify locally-specific rates of subsidence throughout the Louisiana coastal zone. LACES is also synthesizing historical sea level rise (SLR) research, reviewing the state of the current science and identifying key principles to make technical recommendations for incorporating SLR into coastal planning, policies, and projects.

LACES partnered with the Coalition to Restore Coastal Louisiana, the USACE, and a diverse array of other parties to sponsor *The State of the Coast: Implementing a Sustainable Coast for Louisiana*, held in June 2010. This conference brought together experts in a forum to learn from recent advances in science and engineering as they relate to hurricane protection and ecosystem restoration in coastal Louisiana. LACES is planning to co-host a second State of the Coast Conference in 2012.

Additionally, LACES contributed to the State's response to the Deepwater Horizon oil spill by creating the Horizon-Science and Engineering Review Team (H-SERT) to provide expert advice and guidance to the State in response to the oil spill event. The H-SERT included over 20 academic staff from five Louisiana universities.

To provide continued and improved academic resources for the State's coastal program, LACES worked with Louisiana universities in FY 2011 to develop and implement a Coastal Sustainability Consortium. This consortium creates a collaborative relationship between university researchers in Louisiana, government agencies, and corporate partners to promote effective coastal restoration and protection efforts across coastal Louisiana. Seven universities are currently members of this consortium.

Furthering Flood Protection Goals

OCPR's Flood Protection Division operates a flood protection program that provides engineering and technical assistance to roughly 22 coastal levee districts and Flood Protection Entities (FPEs). The Flood Protection Division is heavily involved in the review of plans and specifications for the GNO-HPS system and provides construction inspection assistance for the same. The Flood Protection Division also provides engineering assistance in the production of plans and specifications for maintenance-related projects and flood protection improvements. Flood protection activities in which the Flood Protection Division participated in FY 2011 included performing flood protection inspections (compliance, construction and maintenance), conducting inspection certification training classes, conducting damage assessments after flood events, participating in coastal studies for areas not under an incorporated FPE, and advising FPEs on best practices for operation and maintenance of flood protection features.

Standing Up the Master Plan

In FY 2011, the State organized a Master Plan Delivery Team (MPDT) and tasked it with development of the 2012 Master Plan. The 2012 Master Plan will update and expand upon the 2007 Master Plan by presenting a new approach for considering the future of Louisiana's coast. Specifically, the 2012 Master Plan will define a spatially explicit vision for a sustainable coast, identify ecosystem restoration and hurricane protection projects, and define priorities for implementation to ultimately achieve the State's vision. The MPDT made numerous advancements in the development of the 2012 Master Plan in FY 2011. These advancements are presented in detail in Chapter 4.

Developing a Strategy for Nonstructural Measures

Hurricane protection systems and restored wetlands cannot eliminate all flooding risks, whether from storm surges, rivers, or rainfall events. Additionally, wind damage is always a risk for hurricane-prone regions. For these reasons, storm-related risks will remain facts of life in Louisiana, regardless of how many protection structures are built and acres of wetlands are restored. The adoption of nonstructural measures is therefore a critical tool to minimize risks to property. Recognizing this necessity, the State began development of a nonstructural strategy in FY 2011 to guide recommendations of nonstructural projects in the 2012 Master Plan and to ensure that nonstructural measures have a significant place in future coastal planning activities.

Efforts for developing this nonstructural strategy in FY 2011 included contacting individual parishes and the Louisiana Office of Community Development for locations and elevations of existing and ongoing nonstructural elevation projects. Based on the location of existing nonstructural projects in relation to other flood protection projects, additional areas may be identified as candidates for future nonstructural projects. The nonstructural team also initiated work on identifying areas that are appropriate for additional nonstructural projects and on developing an overall nonstructural flood protection strategy.

Increasing Accountability through Transparency

In FY 2011, OCPR transitioned to a new project tracking system called @task. This system is now used instead of the Strategic Online Natural Resources Information

WEBSITE

THE NEW COASTAL WEBSITE

The State established a new CPRA/OCPR website in FY 2011 to better inform the public on State coastal activities. The new website's homepage provides easy access to information, videos, and presentations through navigation options on the left as well as a three-faceted billboard that continuously scrolls through three important issues concerning the Louisiana coast–Coastal Restoration Projects, Coastal Land Loss, and the Deepwater Horizon Oil Spill. Presentations, videos, data, history, pictures and other information on coastal Louisiana are also available on the Library subpage. The site's Calendar subpage allows users to view information on upcoming meetings as well as archived meetings. Information on coastal projects can be obtained by clicking on the Projects subpage. The State is currently expanding its project-related information through the development of interactive maps that will allow users to see the effects of restoration and protection projects in coastal Louisiana by interacting with a clickable timeline placed within the maps. Other website features that are currently available or under development include:

- Flash animation of images;
- Video with audio features;
- Interactive PowerPoint with optional audio talking points;
- Interactive flood risk map with clickable cities and levels of flood risk; and
- Interactive restoration map that will display changes with and without certain restoration actions.

The new website is available at http://coastal.louisiana.gov/.

System (SONRIS) that was previously utilized for coastal project tracking. Through @task, the State is working to provide stakeholders and the public with unprecedented access to its coastal program. With @task, most aspects of the new system will be visible by the public, including project timelines, budgets, and contracts, as well as up-to-date project information.

Advancing Innovation through Initiatives

Coastal Carbon Offset Program. The abundant plant life of Louisiana's coastal wetlands removes vast amounts of carbon dioxide (a greenhouse gas) through photosynthesis. Projects that preserve or restore coastal wetlands help to sequester (capture and store) carbon and greenhouse gases that would otherwise remain in the atmosphere. The ability to sequester carbon dioxide is a marketable asset to companies or organizations seeking to offset their own emissions of greenhouse gases. Recognizing this, in 2009, the State commissioned a group of wetland scientists to review available information on wetland dynamics and carbon sequestration. The results of this review indicate that carbon sequestration in coastal wetlands could be in the range of 2-14 metric tons per acre annually. Based on these findings, the State is now developing its Coastal Carbon Credits Offset Program. This initiative will generate revenue for the State's coastal program by marketing the sequestration benefits of coastal restoration projects to companies seeking to offset their greenhouse gas emissions. The first phase of this initiative, a market assessment, was completed in FY 2011. The results of this phase indicate a strong potential for successful implementation of the program and for resulting significant revenue streams. Work is now underway to identify the quickest path to market transactions in carbon offset credits generated by coastal restoration projects.

Water Quality Credit Program. An important ecological function of Louisiana's coastal wetlands is removing nutrients from river water that would otherwise enter the Gulf of Mexico and contribute to the growing problem of low oxygen levels in Gulf waters (also referred to as hypoxia). As increasing amounts of river water are diverted into marshes through the implementation of restoration projects, the wetlands will filter nutrients and sediments out of the water and convert them into biologically useful materials. Recent studies suggest that the water quality improvement function of wetlands has an estimated mean value of $325 per acre per year. To capitalize on this beneficial property of wetlands, the State is investigating the development of a water quality credit trading market. Depending on market feasibility, water quality credits associated with State wetland restoration activities may be potentially sold to industrial, municipal, or agricultural operations to generate revenue for maintaining or expanding wetland restoration. The water quality credit trading feasibility analysis should be completed by September 2011.

Innovative Dredging Technology. Over the past decade, the State has witnessed an increase in dredging costs for projects involving the placement of dredged sediment for restoration purposes. While a portion of this increase is due to the rising costs of fuel, labor, and steel, project cost may also be affected by the performance risk associated with current contracting procedures, a lack of competition, and a national dredging community that has very little capacity for additional projects. In anticipation of developing a new statewide program that maximizes restoration potential for coastal Louisiana while controlling the cost, the State assembled a team that included industry experts to evaluate the national and international dredging markets for any new and emerging technologies, research innovative contracting methods, and investigate program approaches that historically have not been implemented in Louisiana. With a primary focus on inland marsh creation projects, this study will help State engineers produce more cost-efficient designs. The initial study report was completed in January 2011.

3. Fiscal Year 2012 Implementation Plan

This chapter presents an implementation plan that describes the State's proposed investment in coastal restoration and protection activities over the next three fiscal years (FY 2012–FY 2014), including all the coastal protection and restoration projects in which the State will participate. The three-year plan presents project activity and expenditures over time. Projected schedules and budgets for FY 2012 are estimates based on the most recent available information. Estimates for future years are likely to change, and future Annual Plans will update them as needed.

Project Status Summaries

The FY 2012 implementation plan presents the status of State coastal projects according to the four phases traditionally used to track projects: 1) planning; 2) design; 3) construction; and 4) operation, maintenance, and monitoring (OM&M). Below are summaries of project status by phase; Appendices A and B provide additional details about the projects. The current status of individual projects is presented by authorizing program in the project schedules in the Coastal Program Details section. Readers are referred to the State's coastal website (http://coastal.louisiana.gov/) for additional details about specific projects. Regional maps of projects in planning, design, and/or construction in FY 2012 are presented in Figures 3-1 through 3-3.

DELTA STUDY

LOUISIANA COASTAL AREA (LCA) MISSISSIPPI RIVER HYDRODYNAMIC AND DELTA MANAGEMENT STUDY

The lower Mississippi River contains the largest delta in North America. Every year, millions of cubic yards of sediment are transported downriver to the delta at the mouth of the river. The USACE dredges approximately 75 million cubic yards of sediment (mostly sand) in the lower Mississippi each year to maintain existing navigation channels. The river also transports a suspended sediment load (mostly silt) of about 160 million cubic yards to its mouth. Most of this suspended sediment, as well as some of the sand, is transported to deep waters of the Gulf of Mexico instead of nourishing the wetlands within and around the delta. The lack of sediment and nutrient input into the surrounding marshes means that new soils are not being built at a sufficient rate to offset the effects of subsidence and relative sea level change. These factors working in conjunction have resulted in massive land loss in the delta plain.

To reverse land loss trends in the lower Mississippi River and delta areas, the State, in partnership with the USACE, is developing the LCA Mississippi River Hydrodynamic and Delta Management (MRHDM) Study. The MRHDM Study seeks to provide a comprehensive approach to investigating existing water and sediment resources in the Mississippi River for coastal protection and restoration while maintaining the existing navigation and flood control functions of the Mississippi River and Tributaries project.

The study will analyze two types of projects:

- Large diversions (greater than 50,000 cubic feet per second) from the Mississippi River; and
- Alternative navigation channel alignments.

The large-scale river diversions could potentially maximize the river's sediment and freshwater resources delivered to the deltaic plain for ecosystem maintenance. Alternate navigation scenarios include new channels to the east or west of the current river that would provide navigation either in the new channel or by maintaining the existing navigation channel as a lock-controlled slack-water channel. The hydrodynamic portion of the study includes data collection, data synthesis, extension of existing modeling, and new modeling efforts. Once a comprehensive model has been developed, calibrated, and verified for existing conditions, it will be used to evaluate the impacts of potential large-scale restoration features.

This planning effort is scheduled for completion in FY 2014 at an estimated cost of $26.2 million.

Figure 3-1. Active State Projects for FY 2012 – Eastern Region.

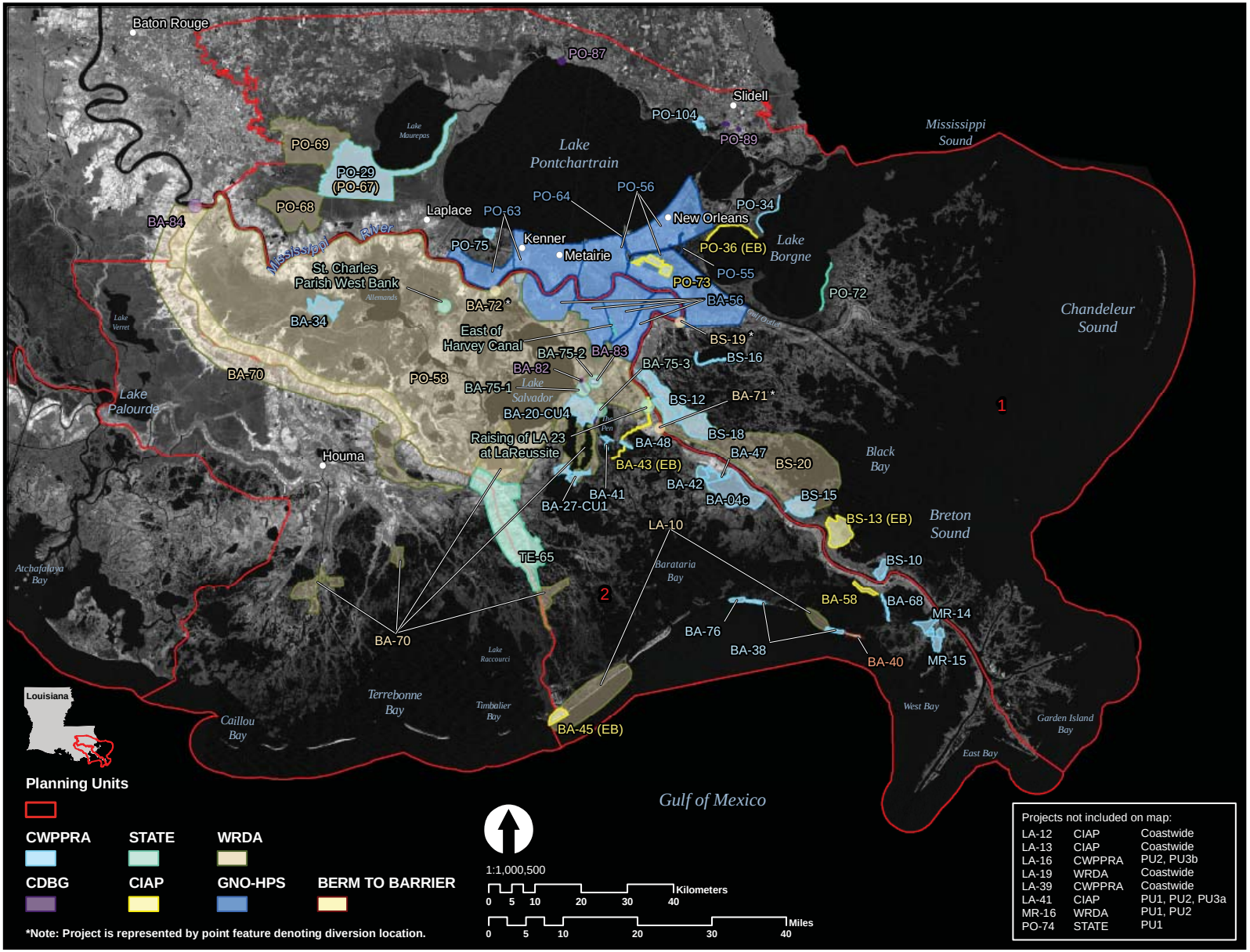


Figure 3-2. Active State Projects for FY 2012 – Central Region.

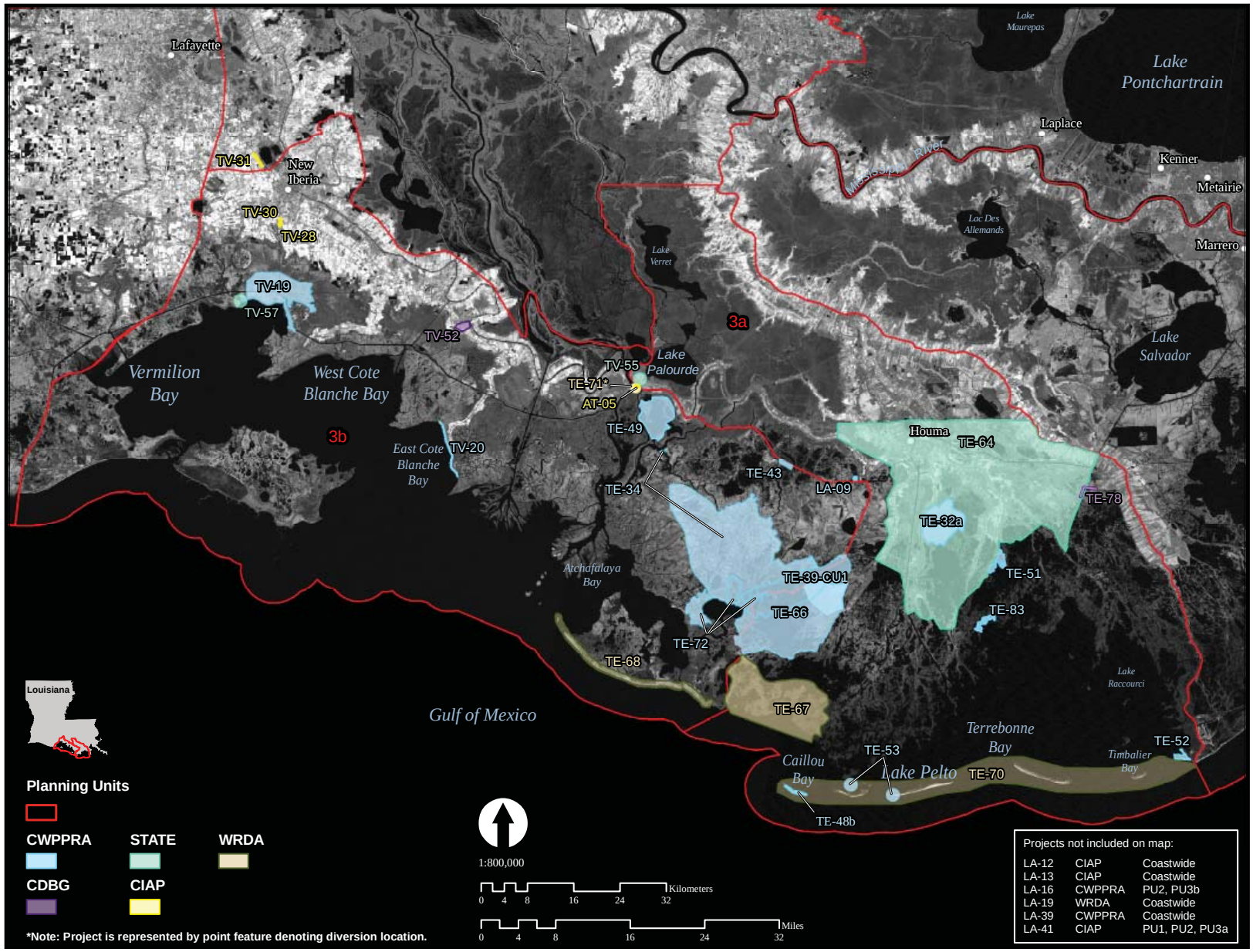
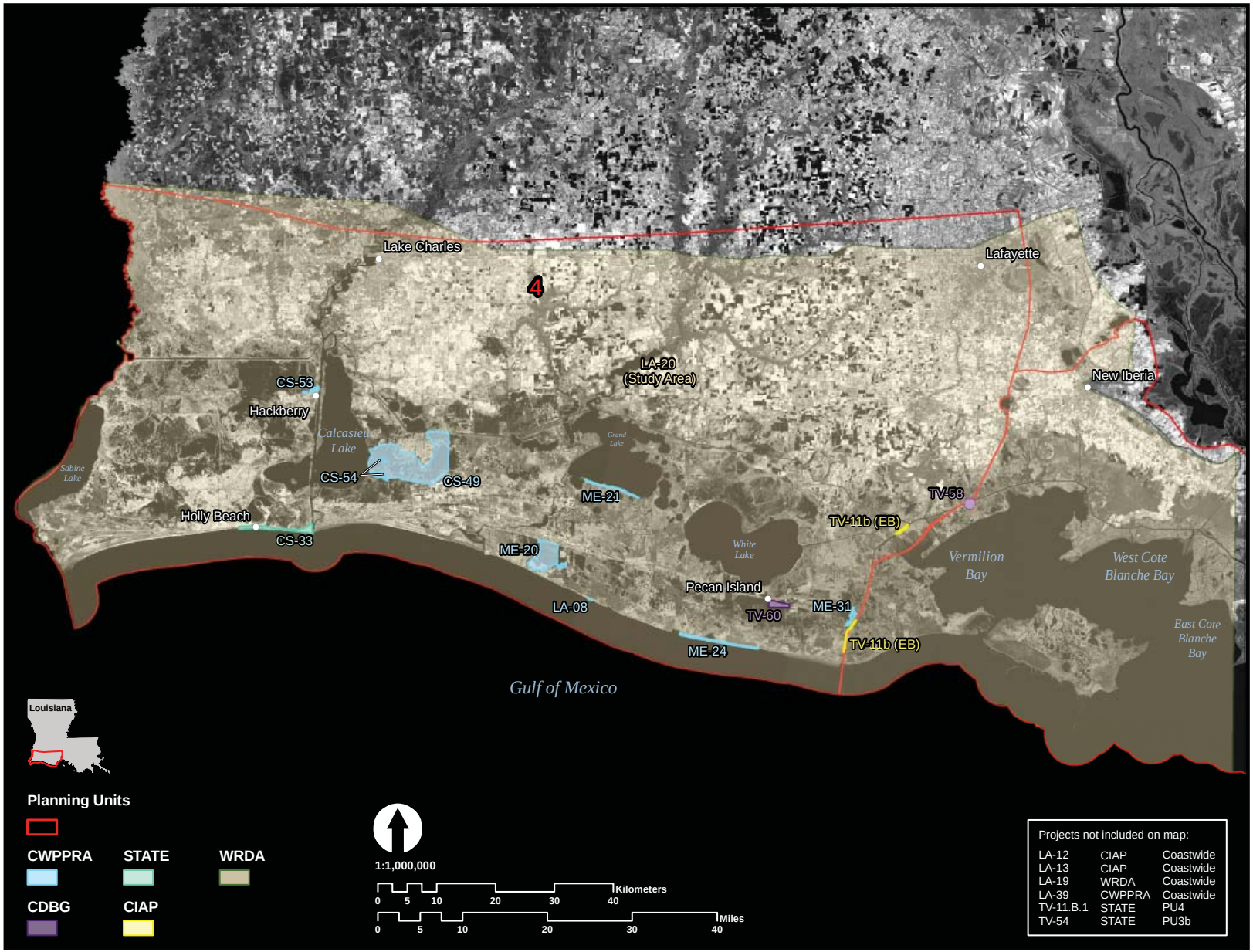


Figure 3-3. Active State Projects for FY 2012 – Western Region.



Projects in Planning

The planning team identified seven projects in the planning phase in FY 2012, including four protection projects, two restoration projects, and one integrated protection and restoration project. These projects represent a total State investment of $13.5 million in FY 2012, and will proceed to design and construction according to their authorizing program as discussed in the Coastal Program Details section.

A total of 49 coastal protection, restoration, and/or infrastructure projects will begin or continue construction in FY 2012.

Projects in Design

The planning team identified 46 projects in design in FY 2012, including four protection projects and 42 restoration projects. These projects represent a total State investment of $32.9 million in FY 2012. The path these projects will take to construction varies according to the authorizing program as described in the Coastal Program Details section.

Projects under Construction

The planning team identified 49 projects that will begin or continue construction in FY 2012, including 17 protection projects, 28 restoration projects, and four infrastructure projects. These projects represent a total State investment of $214.2 million in FY 2012, and 14 of these projects are projected to complete construction in FY 2012. Table 3-1 presents additional information about projects in construction in FY 2012, and Figure 3-4 provides a map with the locations of these projects. Several of these projects are described in Chapter 2.

Constructed Projects in Operation, Maintenance, and Monitoring

OCPR will expend approximately $12.3 million in FY 2012 to operate and maintain 83 constructed projects and to monitor 38 constructed projects. Additionally, the State will also expend approximately $1.2 million to monitor coastwide conditions using CRMS-Wetlands (http://www.lacoast.gov/crms2/Home.aspx). Finally, the State will expend $10.5 million in FY 2012 to engage in hurricane damage repairs for constructed projects and marine debris removal offshore of Rockefeller Wildlife Management Area and Game Preserve. These hurricane recovery expenditures are fully reimbursable by the Federal Emergency Management Agency (FEMA). Figure 3-5 provides a map with locations of all projects with OM&M expenditures in FY 2012. Project-specific OM&M expenditures are presented in Appendix B.

Ongoing Programs and Initiatives

Ongoing State Efforts. The State operates 15 ongoing programs. These efforts provide supporting data and research for protection and restoration projects and answer key questions about uncertainties and coastal processes that affect project performance and sustainability. OCPR's LACES Division coordinates many of these programs. Seven of these programs are partially or entirely funded with surplus funds. For example, surplus funds comprise the majority of the $7 million annual allocation for the State's beneficial use program in FY 2012. This program includes funding to pre-clear sites for beneficial use of dredged material to better ensure that material generated by USACE dredging operations is placed where it can best support the State's restoration and protection goals.

Applied Innovations. The State is exploring several initiatives that could expedite the achievement of Master Plan objectives by streamlining the planning process, improving efficiency within the coastal program, and defraying the costs of project planning and implementation. These initiatives, which are funded with surplus dollars, include the exploration of carbon and water quality credit markets; innovative dredging technologies; a nonstructural pilot program; and an intelligent flood protection, monitoring, warning and response system. Chapter 2 presents additional information about some of these initiatives. Projected expenditures for these initiatives are presented in Appendix B.

The State is exploring several initiatives that could streamline the planning process, improve efficiency within the coastal program, and defray the costs of project planning and implementation.

Coastal Program Details

The projects discussed above are authorized through multiple programs, each of which entails different processes to proceed through implementation. Summaries of coastal programs with active projects are presented below. Detailed projected expenditures are presented in Appendix B by program.

Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA)

CWPPRA was authorized by Congress in 1990 to identify, prepare, and fund construction of coastal wetlands restoration projects. CWPPRA is managed by a Task Force comprised of the State and five Federal agencies, including the U.S. Environmental Protection Agency (EPA), the U.S. Fish and Wildlife Service (USFWS), the Natural Resources Conservation Service (NRCS), the National Marine Fisheries Service (NMFS), and the USACE. The CWPPRA Task Force evaluates projects proposed for inclusion in the CWPPRA program and prepares a ranked list of candidate projects annually based on cost-effectiveness, longevity, risk, supporting partnerships, public support, and support of CWPPRA goals. From this ranked list, the Task Force selects a final list of projects, the Priority Project List (PPL), for implementation each year.

Table 3-1. Projects in Construction in FY 2012.

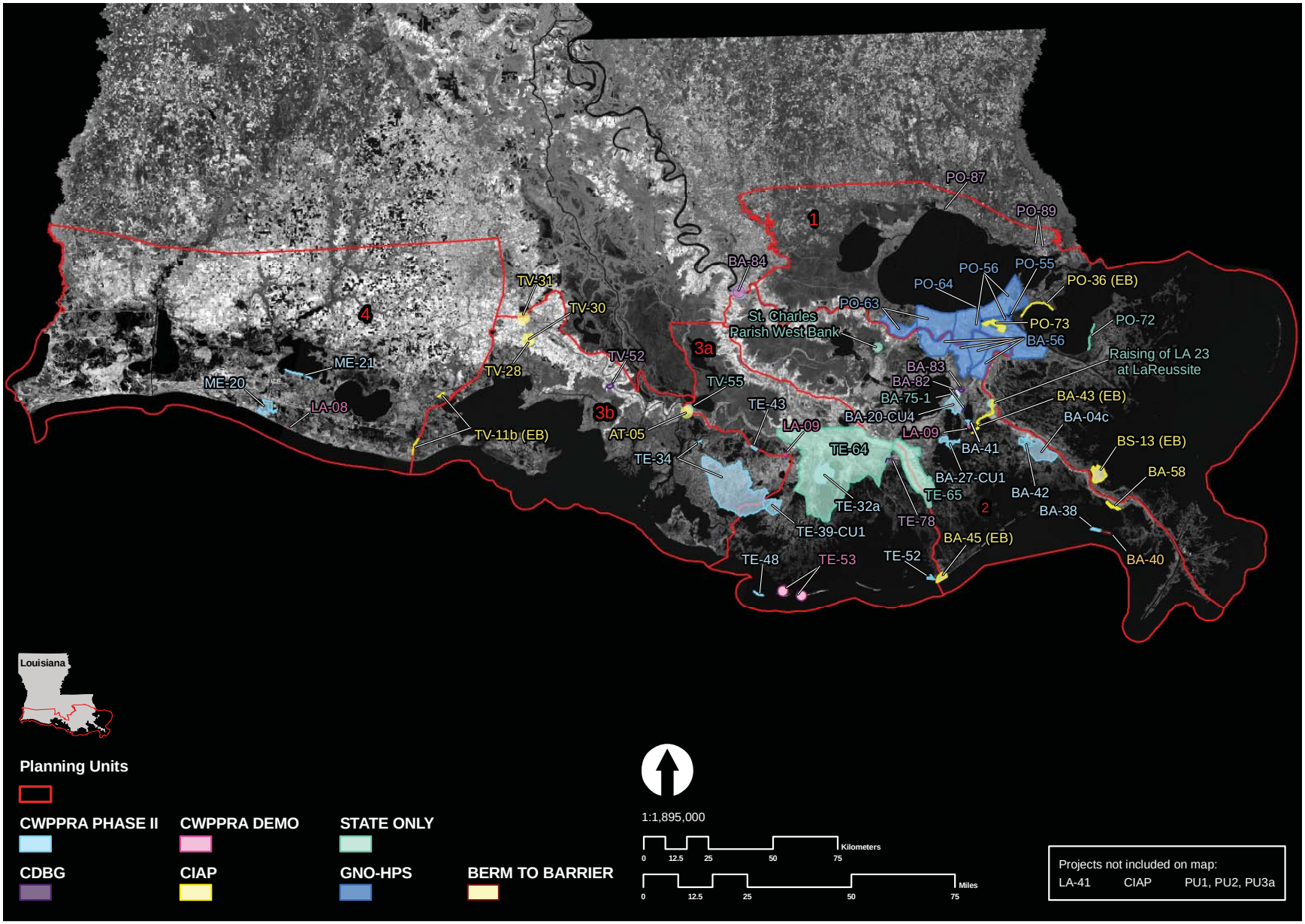
State ID	Project Name	Construction Start Date	Construction End Date	Project Type	State Construction Budget
CWPPRA Phase 2 Projects					
BA-04C	West Pointe a la Hache Outfall Management	12-Jun-12	15-Jun-13	Restoration	$297,604
BA-20-CU4	Jonathan Davis Wetland Protection	23-Jul-10	25-Oct-11	Restoration	$2,906,343
BA-27-CU1	Barataria Basin Landbridge Shoreline Protection, Phase 3–CU7 and CU8	28-Oct-10	1-Feb-12	Restoration	$5,550,000
BA-38	Pelican Island and Pass La Mer to Chaland Pass Restoration	8-Jun-11	31-May-13	Restoration	$4,464,317
BA-41	South Shore of the Pen Shoreline Protection and Marsh Creation	14-Aug-09	1-Aug-11	Restoration	$2,433,757
BA-42	Lake Hermitage Marsh Creation	22-Jan-09	10-May-13	Restoration	$5,498,186
ME-20	South Grand Chenier Hydrologic Restoration	26-Jan-10	16-Oct-13	Restoration	$3,595,502
ME-21	Grand Lake Shoreline Protection, Tebo Point	15-Jun-11	30-Jul-12	Restoration	$405,000
TE-32A	North Lake Boudreaux Basin Freshwater Introduction and Hydrologic Management	15-Mar-12	31-Dec-14	Restoration	$2,480,547
TE-34	Penchant Basin Natural Resources Plan, Increment 1	6-Apr-10	29-Jul-11	Restoration	$1,458,457
TE-39-CU1	South Lake Decade Freshwater Introduction–CU1	7-Oct-10	13-Jul-11	Restoration	$452,784
TE-43	GIWW Bank Restoration of Critical Areas in Terrebonne	15-Jul-11	30-Mar-12	Restoration	$1,288,146
TE-48B	Raccoon Island Shoreline Protection and Marsh Creation–Phase B	23-Jan-08	21-Oct-11	Restoration	$2,282,521
TE-52	West Belle Pass Barrier Headland Restoration	15-Jul-11	15-Dec-12	Restoration	$5,509,159
CWPPRA Demonstration Projects					
LA-08	Bioengineered Oyster Reef Demonstration	14-Apr-11	23-Mar-12	Restoration	$39,065
LA-09	Sediment Containment System for Marsh Creation Demonstration	1-Oct-11	30-Sep-12	Restoration	$174,000
TE-53	Enhancement of Barrier Island Vegetation Demonstration	15-May-10	30-Sep-11	Restoration	$644,392
CIAP Projects					
BA-43 (EB)	Long Distance Mississippi River Sediment Pipeline (Phase 1)[1]	30-Mar-12	30-Dec-13	Restoration	$59,318,579
BA-45 (EB)	Caminada Headlands[1]	15-May-12	15-Aug-13	Restoration	$60,190,000
BA-58	Fringe Marsh Repair	7-Dec-11	24-Apr-13	Restoration	$2,300,000

Table 3-1. Projects in Construction in FY 2012.

State ID	Project Name	Construction Start Date	Construction End Date	Project Type	State Construction Budget
CIAP Projects (Cont'd)					
BS-13 (EB)	Bayou Lamoque Floodgate Removal[2]	9-Mar-12	21-Sep-12	Restoration	$1,300,000
LA-41	Shoreline Protection Emergency Restoration[1]	15-Jul-11	20-May-12	Restoration	$10,000,000
PO-36 (EB)	Orleans Land Bridge Shoreline Protection and Marsh Creation	8-Apr-11	8-Aug-13	Restoration	$25,857,541
PO-73	Central Wetlands Assimilation	21-Jul-11	16-Jan-13	Restoration	$8,710,000
TV-11B (EB)	Freshwater Bayou Bank Stabilization[1]	9-Aug-11	17-Jul-12	Restoration	$14,500,000
AT-05	Morgan City Industrial Road	25-Jan-12	2-Oct-12	Infrastructure	$165,000
TV-28	Port of Iberia Bridge Replacement–Port Road over Commercial Canal	27-Jul-11	25-Sep-13	Infrastructure	$500,000
TV-30	Port of Iberia Bridge Replacement–David Duboin Road over Commercial Canal	27-Jul-11	12-Oct-12	Infrastructure	$570,000
TV-31	Acadiana Regional Airport	1-Dec-11	1-Nov-12	Infrastructure	$602,500
State-Only Projects					
BA-75-1	Jean Lafitte Tidal Protection	6-Aug-11	15-Nov-12	Protection	$4,500,000
TE-64	Morganza to the Gulf[3]	27-Jan-09	1-Jun-13	Protection	$97,730,000
TE-65	Larose to Golden Meadow	7-Jan-09	28-Sep-12	Protection	$19,820,000
TV-55	Morgan City/St. Mary Flood Protection	15-Jan-12	15-Mar-13	Protection	$3,483,000
	Raising of LA-23 at LaReussite	10-Jun-11	15-Jun-11	Protection	$1,200,000
	St. Charles Parish West Bank	1-Nov-11	1-Nov-13	Protection	$2,500,000
PO-72	Biloxi Marsh	18-Dec-11	1-Nov-13	Restoration	$19,360,000
CDBG Projects					
BA-82	Lafitte Area Levee Repair	2-Apr-12	1-Jul-13	Protection	$450,000
BA-84	Bayou Lafourche Fresh Water District- Walter S. Lemann Memorial Pump Station Repairs	15-May-12	16-Feb-15	Protection	$2,322,000
PO-87	Madisonville Bulkhead Project[3]	1-Aug-11	1-Jul-12	Protection	$990,000
PO-89	South Slidell Flood Control Structure	2-Jun-12	1-Sep-13	Protection	$1,350,000
TE-78	Cut-Off/Pointe Aux Chene Levee	15-Jun-12	15-Oct-13	Protection	$5,000,000
TV-52	Franklin Floodgate Sinkable Barge and Pump Station	16-Aug-11	6-Dec-13	Protection	$4,385,000
BA-83	Rosethorne Wetland Assimilation Project	30-Apr-12	30-Jan-15	Restoration	$850,000
Berm to Barrier Projects					
BA-40	Riverine Sand Mining/Scofield Island Restoration	1-Jan-12	1-Jun-13	Restoration	$70,000,000
GNO-HPS Projects[4]					
BA-56	West Bank and Vicinity	6-Nov-08	31-Jan-13	Protection	$535,500,000
PO-55	Lake Pontchartrain & Vicinity, IHNC Storm Surge Barrier LPV-IHNC-02	1-May-09	30-Jun-12	Protection	$1,300,000,000
PO-56	Lake Pontchartrain and Vicinity (HPO)	22-Sep-08	31-Dec-11	Protection	$2,935,344,422
PO-63	Lake Pontchartrain and Vicinity (PRO)	4-May-10	1-Nov-13	Protection	$760,000,000
PO-64	Lake Pontchartrain and Vicinity, Seabrook Lock LPV-IHNC-01	1-Aug-10	31-Dec-11	Protection	$167,000,000

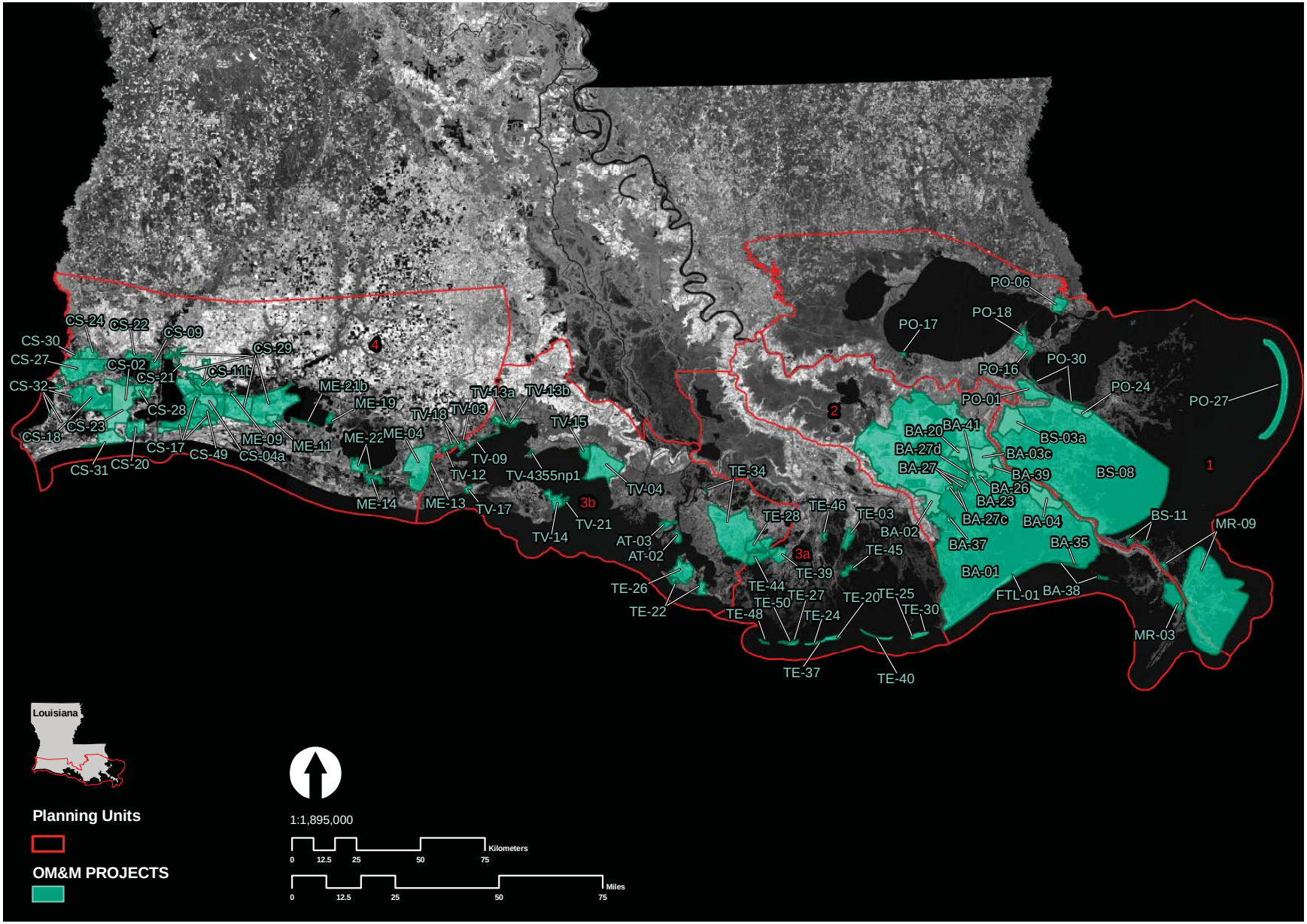
Notes:
1–Construction partially funded with State surplus funds.
2–Construction budget may be revised upon completion of design.
3–Construction end date represents portions of project currently funded with State surplus funds only; project will continue construction beyond this period.
4–Total construction cost is provided. State contribution to total construction cost was in the form of a $293.3 million surplus allocation to cover LERRDS costs.

Figure 3-4. Projects in Construction in FY 2012.



Source: USGS

Figure 3-5. Constructed Projects with Operation, Maintenance, and Monitoring Expenditures in FY 2012.



Source: USGS

Following project selection, CWPPRA projects proceed through a two-phased implementation process. Phase 1 consists of Engineering and Design, an in-depth process by which engineers and biologists further develop and assess project features and effects. After design, these projects will be considered for construction, which begins upon Phase 2 approval by the Task Force. Phase 2, referred to as Construction and Monitoring, involves the actual building and subsequent OM&M of the project. The State will expend funds in FY 2012 on the implementation of 27 CWPPRA Phase 1 projects (design) and 15 CWPPRA Phase 2 projects (design and construction). Finally, the State is participating in four CWPPRA demonstration projects, the results of which will be incorporated into the design of future projects. Active CWPPRA projects include the following:

- LaBranche East Marsh Creation (PO-75) (Phase 1);
- West Belle Pass Barrier Headland Restoration (TE-52) (Phase 2);
- South Grand Chenier Hydrologic Restoration (ME-20) (Phase 2); and
- Bayou Dupont Marsh and Ridge Creation (BA-48) (Phase 2).

Project schedules for CWPPRA projects are included in Table 3-2. Additional information about CWPPRA projects is available on the CWPPRA website (www.lacoast.gov). Project-specific CWPPRA expenditures are presented in Appendix B.

CWPPRA uses a two-phased implementation process. Projects that are approved for design (Phase 1) must be approved for construction (Phase 2) after design is completed.

The Federal cost-share for CWPPRA projects is 85 percent of the total project cost, with the State assuming responsibility for the remaining 15 percent of the cost. The State's contribution must include a cash payment of not less than five percent of the total project cost. The remainder of the State's contribution may take the form of lands, easements, or rights-of-way, or any other form of in-kind contribution determined to be appropriate by the lead Task Force member. Cost-share agreement conditions for CWPPRA projects vary according to the Federal partner.

Table 3-2. Projected Three-Year Schedules for Active CWPPRA Projects (FY 2012–FY 2014).

		Fiscal Year	2012				2013				2014			
		Quarter	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
State ID	Project Name													
CWPPRA Phase 1 (Federal Partner in Parentheses)														
BA-34	Mississippi River Reintroduction Into Northwest Barataria Basin (EPA)		D	D	D	D	D	D	D	W	W	W	W	W
BA-47	West Pointe a la Hache Marsh Creation (NRCS)		D	D	D	D	D	D	D	D	D	W	W	W
BA-68	Grand Liard Marsh and Ridge Restoration (NMFS)		D	D	D	D	D	D	D	D	W	W	W	W
BA-76	Cheniere Ronquille Barrier Island Restoration (NMFS)		D	D	D	D	D	D	D	D	D	W	W	W
BS-10	Delta Building Diversion North of Fort St. Philip (USACE)[1]		D	D	D	D	W	W	W	W	W	W	W	W
BS-12	White Ditch Resurrection and Outfall Management (NRCS)		D	D	D	D	D	D	D	D	D	W	W	W
BS-15	Bohemia Mississippi River Reintroduction (EPA)		D	D	D	W	W	W	W	W	W	W	W	W
BS-16	Caernarvon Outfall Management/Lake Lery Shoreline Protection (USFWS)		D	D	D	D	W	W	W	W	W	W	W	W
BS-18	Bertrandville Siphon (EPA)		D	D	D	D	D	D	D	D	D	D	D	D
CS-49	Cameron-Creole Freshwater Introduction (NRCS)[2]		D	D	D	D	W	W	W	W	W	W	W	W
CS-53	Kelso Bayou Marsh Creation and Hydrologic Restoration (NRCS)[3]		D	D	D	D	D	D	D	D	D	D	W	W
CS-54	Cameron-Creole Watershed Grand Bayou Marsh Creation (USFWS)[3]		D	D	D	D	D	D	W	W	W	W	W	W
LA-39	Coastwide Planting (NRCS)[3]		D	D	D	D	D	D	W	W	W	W	W	W
ME-24	Southwest Louisiana Gulf Shoreline Nourishment and Protection (USACE)		D	D	D	D	D	D	D	D	W	W	W	W
ME-31	Freshwater Bayou Marsh Creation (NRCS)		D	D	D	D	D	D	W	W	W	W	W	W
MR-14	Spanish Pass Diversion (USACE)[1]		D	D	D	D	D	D	D	D	W	W	W	W
MR-15	Venice Ponds Marsh Creation and Crevasses (EPA)		D	W	W	W	W	W	W	W	W	W	W	W
PO-29	River Reintroduction into Maurepas Swamp (EPA)[4]		D	D	D	W	W	W	W	W	W	W	W	W
PO-34	Alligator Bend Marsh Restoration and Shoreline Protection (NRCS)		D	D	D	D	D	W	W	W	W	W	W	W
PO-75	LaBranche East Marsh Creation (NRCS)		D	D	D	D	D	D	W	W	W	W	W	W
PO-104	Bayou Bonfouca Marsh Creation (USFWS)[3]		D	D	D	D	D	D	D	D	D	D	W	W
TE-49	Avoca Island Diversion and Land Building (USACE)[1]		D	D	D	W	W	W	W	W	W	W	W	W
TE-51	Madison Bay Marsh Creation and Terracing (NMFS)		D	D	D	D	D	D	D	D	D	D	D	D
TE-66	Central Terrebonne Freshwater Enhancement (NRCS)		D	D	D	D	D	D	W	W	W	W	W	W
TE-72	Lost Lake Marsh Creation and Hydrologic Restoration (USFWS)		D	D	D	D	D	D	D	D	D	D	D	D
TE-83	Terrebonne Bay Marsh Creation- Nourishment (USFWS)[3]		D	D	D	D	D	D	D	D	D	D	W	W
TV-20	Bayou Sale Shoreline Protection (NRCS)		D	D	W	W	W	W	W	W	W	W	W	W
TE-47	Ship Shoal: Whiskey West Flank Restoration (EPA)		W	W	W	W	W	W	W	W	W	W	W	W

Table 3-2. Projected Three-Year Schedules for Active CWPPRA Projects (FY 2012–FY 2014).

		Fiscal Year	2012				2013				2014			
		Quarter	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
State ID	Project Name													
CWPPRA Phase 1 (Cont'd) (Federal Partner in Parentheses)														
TV-11B	Freshwater Bayou Bank Stabilization–Belle Isle Canal to Lock (USACE)		W	W	W	W	W	W	W	W	W	W	W	W
TV-19	Weeks Bay Marsh Creation and Shore Protection/Commercial Canal Freshwater Redirection (USACE)[5]													
CWPPRA Phase 2 (Federal Partner in Parentheses)														
BA-20-CU4	Jonathan Davis Wetland Protection (NRCS)		C	F	O	O	O	O	O	O	O	O	O	O
BA-27-CU1	Barataria Basin Landbridge Shoreline Protection, Phase 3–CU7 and CU8 (NRCS)		C	C	F	O	O	O	O	O	O	O	O	O
BA-38	Pelican Island and Pass La Mer to Chaland Pass Restoration (NMFS)[6]		C	C	C	C	C	C	C	F	O	O	O	O
BA-41	South Shore of the Pen Shoreline Protection and Marsh Creation (NRCS)		F	O	O	O	O	O	O	O	O	O	O	O
BA-42	Lake Hermitage Marsh Creation (USFWS)		C	C	C	C	C	C	C	F	O	O	O	O
ME-20	South Grand Chenier Hydrologic Restoration (USFWS)		C	C	C	C	C	C	C	C	C	F	O	O
ME-21	Grand Lake Shoreline Protection, Tebo Point (USACE)		C	C	C	F	O	O	O	O	O	O	O	O
TE-34	Penchant Basin Natural Resources Plan, Increment 1 (NRCS)		F	O	O	O	O	O	O	O	O	O	O	O
TE-39-CU1	South Lake Decade Freshwater Introduction–CU1 (NRCS)		F	O	O	O	O	O	O	O	O	O	O	O
TE-43	GIWW Bank Restoration of Critical Areas in Terrebonne (NRCS)		C	C	F	O	O	O	O	O	O	O	O	O
TE-48B	Raccoon Island Shoreline Protection/Marsh Creation–Phase B (NRCS)		C	F	O	O	O	O	O	O	O	O	O	O
TE-52	West Belle Pass Barrier Headland Restoration (NMFS)		C	C	C	C	C	F	O	O	O	O	O	O
BA-04C	West Pointe a la Hache Outfall Management (NRCS)		D	D	D	B	C	C	C	F	O	O	O	O
TE-32A	North Lake Boudreaux Basin Freshwater Introduction and Hydrologic Management (USFWS)		D	D	B	C	C	C	C	C	C	C	C	C
BA-48	Bayou Dupont Marsh and Ridge Creation (NMFS)[7]		D	D	D	D	C	C	C	F	O	O	O	O
CWPPRA Demonstration Projects														
LA-08	Bioengineered Oyster Reef Demonstration (NMFS)		C	C	F									
TE-53	Enhancement of Barrier Island Vegetation Demonstration (EPA)		F											
LA-09	Sediment Containment System for Marsh Creation Demonstration (NRCS)		D	C	C	C	F							
LA-16	Non-rock Alternatives to Shoreline Protection Demonstration (NRCS)		D	D	D	D	C	C	F					

Notes:
1–Assumes agreement issues with USACE are resolved by April 30, 2011.
2–Project includes a vegetative planting component (CS-49-CU1) scheduled for completion in 1Q 2012.
3–Newly approved for Phase 1.
4–Project will be moved to LCA once design is complete.
5–Schedule is in development.
6–Project funded by CWPPRA; $10 million in Berm to Barrier reserved to construct wider footprint.
7–Newly approved for Phase 2.

LEGEND

- P Feasibility & Planning
- D Engineering & Design
- W Completed Design Projects; Awaiting Construction Funding
- C Construction
- B Both Design & Construction
- F Completed Const. Projects
- I Program Implementation
- O OM&M

Water Resources Development Act (WRDA)

The State is partnered with the USACE on multiple large-scale protection and restoration projects that have been authorized through past WRDA bills. WRDA refers to any of a set of public laws enacted by Congress to address various aspects of water resources including environmental, structural, navigational, flood protection, and hydrologic issues. Active WRDA projects are discussed by category below.

WRDA projects are dependent on Congressional allocations for construction funding.

WRDA 2007, Title VII (LCA Study). WRDA 2007, Title VII enacted several recommendations from the LCA Study, which was released in 2004. The LCA Study evaluated 20 parishes in the Louisiana coastal area from Mississippi to Texas, with the objective of identifying critical human/ecological needs, identifying near-term restoration measures that address those needs, and presenting a strategy for addressing the long-term needs of coastal Louisiana beyond the near-term focus of the LCA Plan. WRDA 2007 authorized several of the study's recommendations, including: construction of five near-term critical restoration projects for which planning and design were already underway; the study of 10 additional near-term critical restoration projects, the Mississippi River to the Gulf Outlet ecosystem restoration project, several protection projects, and multiple investigations into large-scale concepts; and the establishment of a demonstration project program, a beneficial use of dredged material program, and a Science and Technology program. The State will expend funds on the planning and/or design of 12 LCA projects and the implementation of one LCA program in FY 2012, including:

- LCA Mississippi River Hydrodynamic and Delta Management Study (MR-16);
- LCA Convey Atchafalaya River Water to Northern Terrebonne Marshes (TE-71); and
- LCA Medium Diversion with Dedicated Dredging at Myrtle Grove (BA-71).

Schedules for these projects are presented in Table 3-3. Additional information about these projects is available at www.lca.gov. One LCA project, LCA Small Diversion at Hope Canal (PO-67), will be designed using CWPPRA funds in FY 2012; another project, LCA Small Bayou Lafourche Reintroduction (BA-70), is currently on hold pending development of a cost-share agreement with the Federal sponsor. The State constructed a portion of this project in FY 2011 using State surplus funds (BA-25; see Table 2-2) with the intention of seeking in-kind credit following the signing of a cost-share agreement. LCA projects are Federally funded for planning and design and will proceed through these phases in accordance with the schedules provided in Table 3-3. The State is responsible for 50 percent of planning costs and 35 percent of design costs. LCA project construction is subject to the appropriation of Federal construction funds from Congress, with the State being responsible for 35 percent of the total construction cost. Project-specific expenditures for LCA projects are presented in Appendix B.

Future WRDA Authorizations. The State has signed cost-share agreements with the USACE on two other projects that are currently authorized for study and are anticipated to be authorized for construction in subsequent WRDAs. These projects include the Donaldsonville to the Gulf Hurricane Protection Project (PO-58) and the Southwest Coastal Louisiana Feasibility Study (LA-20). The State is responsible for 50 percent of study costs for both projects, which would proceed with implementation upon WRDA authorization and appropriation of Federal construction funds from Congress. Schedules for these projects are included in Table 3-3. Project-specific expenditures are presented in Appendix B.

Because WRDA projects are generally dependent upon Congressional appropriation for construction funding, Federal fund procurement is the principal issue that could affect project implementation. Other issues affecting WRDA projects include cost-share agreement issues with Federal partners, land rights issues, and permitting issues.

Coastal Impact Assistance Program (CIAP)

CIAP was authorized in 2005 as part of the Federal Energy Policy Act to help six coastal States mitigate the onshore effects of Outer Continental Shelf (OCS) oil and gas development. CIAP is projected to provide up to $497 million to Louisiana from the Bureau of Ocean Energy Management, Regulation, and Enforcement (BOEMRE) (formerly the Minerals Management Service) over a four-year period. The State will receive 65 percent of these funds, with the remaining 35 percent being distributed to the 19 coastal parishes. Authorized uses of CIAP funds include projects and activities to conserve, protect or restore coastal areas, including wetlands; mitigation of damage to fish, wildlife or natural resources; planning assistance and the administrative costs of CIAP compliance; implementation of a Federally approved marine, coastal or comprehensive conservation management plan;

Table 3-3. Projected Three-Year Schedules for Active WRDA Projects (FY 2012–FY 2014).

		Fiscal Year	2012				2013				2014			
		Quarter	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
State ID	Project Name													
WRDA 2007, Title VII[1]														
LA-19	LCA Beneficial Use		I	I	I	I	I	I	I	I	I	I	I	I
BS-20	LCA Medium Diversion at White's Ditch		D	D	D	D	D	D	D	D	W	W	W	W
PO-68	LCA Small Diversion at Convent/Blind River[2]		D	D	D	D	D	D	D	D	W	W	W	W
PO-69	LCA Amite River Diversion Canal Modification		D	D	D	D	D	D	D	D	W	W	W	W
TE-70	LCA Terrebonne Basin Barrier Shoreline Restoration		D	D	D	D	D	D	D	D	W	W	W	W
TE-71	LCA Convey Atchafalaya River Water to Northern Terrebonne Marshes		D	D	D	D	D	D	D	D	W	W	W	W
BA-72	LCA Modification of Davis Pond Diversion		P	P	D	D	D	D	D	D	W	W	W	W
BS-19	LCA Modification of Caernarvon Diversion		P	P	D	D	D	D	D	D	W	W	W	W
LA-10	LCA Barataria Basin Barrier Shoreline Restoration[3]		P	P	D	D	D	D	D	D	D	D	W	W
TE-67	LCA Maintain Land Bridge Between Caillou Lake and Gulf of Mexico		P	P	D	D	D	D	D	D	W	W	W	W
TE-68	LCA Stabilize Gulf Shoreline at Point Au Fer Island		P	P	D	D	D	D	D	D	W	W	W	W
BA-71	LCA Medium Diversion with Dedicated Dredging at Myrtle Grove[4]		P	P	P	P	P	P	P	P	P	P	P	P
MR-16	LCA Mississippi River Hydrodynamic and Delta Management Study[2]		P	P	P	P	P	P	P	P	P	P	P	P
PO-67	LCA Small Diversion at Hope Canal[4, 5]						W	W	W	W	W	W	W	W
BA-70	LCA Small Bayou Lafourche Reintroduction[4, 6]													
Future WRDA Authorizations														
LA-20	Southwest Coastal Louisiana Feasibility Study[3]		P	P	P	P	P	P	P	P	D	D	D	D
PO-58	Donaldsonville to the Gulf Hurricane Protection Plan[3]		P	P	P	P	P	P	D	D	D	D	D	D

Notes:
1–Current schedules based on existing cost-share agreements with Federal sponsor; projects will proceed to construction upon appropriation of Federal funds from Congress.
2–Project partially funded by CIAP funds.
3–Component of project may be implemented using Berm to Barrier funds.
4–Project partially funded by surplus funds.
5–Project is under design in CWPPRA and will be transferred to WRDA once design is complete.
6–Project schedule to be determined upon approval of cost-share agreement with Federal sponsor.

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and onshore infrastructure projects and public service needs. Up to 23 percent of those funds can be spent on CIAP planning assistance and compliance and for onshore infrastructure projects and public service needs to mitigate OCS impacts.

CIAP projects require separate grants for both design and construction.

The Louisiana CIAP Plan identifies a total of 104 State-only, State/parish shared, and parish-only projects for which these funds will be utilized. The State will expend funds on the design and/or construction of 12 CIAP projects in FY 2012, including eight restoration projects and four infrastructure projects. CIAP funds will also be used to fund the CFCI program (see Chapter 2), the State's Beneficial Use program, and a Performance Evaluation program for constructed CIAP projects. Active CIAP projects include:

- Long Distance Mississippi River Sediment Pipeline (BA-43 [EB]) (Restoration);
- Caminada Headlands (BA-45 [EB]) (Restoration); and
- Morgan City Industrial Road (AT-05) (Infrastructure).

Project schedules for CIAP projects are included in Table 3-4. Additional information about these projects is available on the State's coastal website. Project-specific expenditures for CIAP projects are presented in Appendix B.

Projects within the CIAP plan are funded for implementation by approval of CIAP grant requests from BOEMRE. Separate grants are required for design and construction. Once the grant application is approved, CIAP projects are authorized and funded for construction and will proceed to construction according to their schedules. Principal causes for delay of CIAP projects include grant delays, land rights issues, and permitting issues.

State-Only Projects

The Louisiana Legislature allocated $790 million in State budget surpluses for the years 2007, 2008, and 2009 for coastal protection and restoration activities. The State is utilizing these funds to expedite its coastal program by funding ongoing programs, developing initiatives, and implementing protection and restoration projects. The overwhelming majority of these funds have been allocated to project implementation. Surplus funds have been used to supplement projects that are authorized through one of the other programs described in this section (e.g., Long Distance Mississippi River Sediment Pipeline [BA-43 (EB)], Southwest Coastal Louisiana Feasibility Study [LA-20]) and implement other State-only projects. The State will expend funds in FY 2012 on 15 State-only projects, including 13 protection projects and two restoration projects. Another State-only project is planned for design in the Hazard Mitigation Grant program (see below) and will be constructed with surplus funds after design is completed. Broadly speaking, State-only projects generally involve one of the following categories:

- Expedited construction of components of Federal protection projects (e.g., Larose to Golden Meadow [TE-65], Morganza to the Gulf [TE-64]);
- Feasibility studies for flood protection in areas not currently covered by the existing Federal protection network (e.g., North Shore Hurricane Flood Protection Plan [PO-74], South Central Hurricane Protection Plan [TV-54]); and
- Protection and restoration projects not included in one of the other coastal programs that are to be implemented in conjunction with local parishes (e.g., Jean Lafitte Tidal Protection [BA-75-1], Morgan City/St. Mary Flood Protection [TV-55]).

The State is utilizing Surplus funds to expedite construction of existing projects, fund ongoing programs, and implement new projects that were not previously authorized by an existing program.

Project schedules for State-only projects are included in Table 3-5 (on page 38). Project-specific expenditures for State-only projects are presented in Appendix B. Of the 15 active State-only projects, eight are funded for construction and will proceed to construction in accordance with their schedules as presented in Table 3-5. One project has completed construction, and the remaining surplus funds will be used to implement OM&M activities for the next two fiscal years. Three of the projects are funded for design and following completion of design will proceed to construction upon procurement of construction funds. The remaining three projects are funded for feasibility only and would proceed to design upon receipt of further authorization through another coastal program. Although all State-only projects are funded by the State, responsibility

Table 3-4. Projected Three-Year Schedules for Active CIAP Projects[1] (FY 2012–FY 2014).

		Fiscal Year	2012				2013				2014			
		Quarter	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
State ID	Project Name													
AT-05	Morgan City Industrial Road[2]		D	D	B	C	C	F						
BA-58	Fringe Marsh Repair[3]		C	C	C	C	C	C	C	F				
LA-13	Coastal Forest Conservation Initiative[4]		I	I										
LA-41	Shoreline Protection Emergency Restoration[5]		C	C	C	F								
PO-36 (EB)	Orleans Land Bridge Shoreline Protection and Marsh Creation[2]		C	C	C	C	C	C	C	F				
PO-73	Central Wetlands Assimilation[2]		C	C	C	C	C	C	C	F				
TV-11B (EB)	Freshwater Bayou Bank Stabilization[2,6]		C	C	C	C	F							
TV-28	Port of Iberia Bridge Replacement–Port Road over Commercial Canal[3]		C	C	C	C	C	C	C	F				
TV-30	Port of Iberia Bridge Replacement–David Duboin Road over Commercial Canal[3]		C	C	C	C	F							
TV-31	Acadiana Regional Airport[7]		B	C	C	C	C	F						
BA-43 (EB)	Long Distance Mississippi River Sediment Pipeline (Phase 1)[7]		D	D	B	C	C	C	C	C	C	F		
BA-45 (EB)	Caminada Headlands[2]		D	D	D	B	C	C	C	C	F			
BS-13 (EB)	Bayou Lamoque Floodgate Removal[2]		D	D	C	C	C	F						
LA-12	Performance Evaluation		O	O	O	O	O	O	O	O	O	O	O	O
	Marsh Creation via Beneficial Use		I	I	I	I	I	I	I	I				

Notes:
1–Schedules factor anticipated timeframes for grant approval.
2–Design grant is approved; Construction grant has not been approved.
3–No Design grant for State funds; Construction grant has not been approved.
4–First program grant approved.
5–Project funded with residual funds from constructed CIAP projects and reallocation of funding from Violet Diversion.
6–Project has been merged with Marsh Creation Near Freshwater Bayou (ME-25 [SF]).
7–Design and Construction grants have not been approved.

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- P Feasibility & Planning
- D Engineering & Design
- W Completed Design Projects; Awaiting Construction Funding
- C Construction
- B Both Design & Construction
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Table 3-5. Projected Three-Year Schedules for Active State-Only Projects (FY 2012–FY 2014).

		Fiscal Year	2012				2013				2014			
		Quarter	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
State ID	Project Name													
TE-64	Morganza to the Gulf[1]		C	C	C	C	C	C	C	C	C	C	C	C
TE-65	Larose to Golden Meadow[1,2]		C	C	C	C	F							
	Raising of LA-23 at LaReussite[1,3]		F											
	St. Charles Parish West Bank[1,4]			C	C	C	C	C	C	C	C	F		
BA-75-1	Jean Lafitte Tidal Protection[1]		D	C	C	C	C	F						
PO-72	Biloxi Marsh[5]		D	D	C	C	C	C	C	C	C	F		
TV-55	Morgan City/St. Mary Flood Protection[1]		D	D	C	C	C	C	F					
BA-75-2	Rosethorne Tidal Protection[1]		D	D	D	D	D	D						
BA-75-3	Lafitte Tidal Protection[1]		O	O	O	O	O	O	O	O				
CS-33	Cameron Parish Shoreline[5]		D	D	D	D	C	C	C	F				
TV-57	Delcambre-Avery Canal (E&D)[5]		D	D	D	D	D	D						
	East of Harvey Canal[1,4]		D	D	D	D								
PO-74	North Shore Hurricane Flood Protection Plan[5]		P	P										
TV-11.B1	Acadiana to the Gulf of Mexico Access Channel[5]		P	P	P	P								
TV-54	South Central Coastal Plan[2,5]		P	P	P	P								
TV-56	Four-Mile Canal Storm Surge Reduction Construction[5,6]								C	C	C	C	C	C

Notes:
1–Project to be implemented by local parish.
2–Assumes USACE is appropriating funds for project.
3–Pending selection of the preferred alternative of an adjacent project.
4–Project transferred from DOTD to OCPR for completion.
5–Project to be implemented by the State.
6–Project design to be funded by HMGP.

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for project implementation varies by project. The State is responsible for implementing six of these projects, with the remaining nine being implemented by local parishes. Projects with local implementation require an agreement between the State and local parish prior to the initiation of implementation. The State has developed a template agreement to streamline the process. Aside from agreement issues, principal factors affecting project implementation of State-only projects are permitting and land rights issues.

Community Development Block Grants (CDBG)

Louisiana received $1.06 billion from FEMA's CDBG program to assist in the recovery from Hurricanes Gustav and Ike. The vast majority of CDBG funds were allocated to the 19 coastal parishes for use in protecting their communities and infrastructure. However, included within the $1.06 billion was an allocation of $27.4 million to the Louisiana Office of Community Development-Disaster Recovery Unit (OCD-DRU) for State coastal protection and restoration projects that will help communities recover from the 2008 hurricanes and prepare to withstand future hurricanes with greater resilience. The State, in partnership with local interests, identified potential flood protection and restoration projects that could be implemented with these CDBG funds in all major regions of coastal Louisiana, including floodgate installation; levee construction or improvement to reduce storm surge impacts to coastal communities and critical infrastructure; and shoreline protection to benefit communities and related infrastructure and recreational facilities. FEMA subsequently approved nine projects for CDBG funding, including:

- South Slidell Flood Control Structure (PO-89); and
- Front Ridge Chenier Terracing/Protection (TV-60).

All State CDBG projects are funded for construction.

Project schedules for CDBG projects are included in Table 3-6. Project-specific expenditures for CDBG projects are presented in Appendix B. All State CDBG projects are funded for construction and will proceed to construction in accordance with their schedules as presented in Table 3-6. State CDBG projects do not require an agreement with local parishes; however, local parishes are responsible for OM&M costs after project completion. Project implementation requires submittal of an application to OCD-DRU for final approval and funding. Applicant projects are reviewed by OCD-DRU for consistency with program objectives and criteria. OCD-DRU has already performed a pre-screening of all nine State CDBG projects and has determined that the projects meet these objectives and criteria. Potential issues that could affect CDBG project implementation include design issues, land rights issues, and permitting issues.

Hazard Mitigation Grant Program (HMGP)

In response to Hurricane Katrina, FEMA and the Governor's Office of Homeland Security and Emergency Preparedness (GOHSEP) allocated $50 million from the HMGP to OCPR for coastal restoration projects. Following a major disaster declaration, the HMGP provides funding for long-term hazard mitigation projects that help reduce the impacts of future storms. Parish governments, working with FEMA, GOHSEP, and the Louisiana Recovery Authority (LRA), provided a list of projects to OCPR that would foster resiliency in coastal communities that are subject to flooding. Local parishes are responsible for project implementation and are reimbursed for project expenses by FEMA, with the State disbursing these funds. In June 2009, OCPR submitted 15 applications for projects selected from this list. Currently 10 of the 15 projects have been approved for funding by FEMA for a total cost of $45.3 million. Schedules for these projects are currently under development and will be included in future Annual Plans. The list of approved HMGP projects is presented in Appendix D. Following Hurricane Ike, OCPR received another allocation of $33 million in HMGP funds. OCPR submitted 14 applications and three alternates to FEMA for funding approval. The Hurricane Ike HMGP projects are currently under review and pending approval by FEMA.

Applicant HMGP projects must first complete a Request for Information (RFI) process in which they are subject to additional information requests from FEMA. The RFI process is open-ended and continues until FEMA is satisfied that no further inquiries are needed for approval decisions. Each of the State's current HMGP allotments has a separate RFI process. Five of the 15 Hurricane Katrina HMGP projects have not yet completed the RFI process, and no Hurricane Ike HMGP projects have completed the process. Following approval of the last applicant project, HMGP projects are allocated a three-year period of performance in which all projects must complete implementation. The principal issue that could affect HMGP project implementation is delays associated with the RFI process; others include design issues, land rights issues, and permitting issues.

Table 3-6. Projected Three-Year Schedules for Active CDBG Projects (FY 2012–FY 2014).

		2012				2013				2014			
	Quarter	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
State ID	Project Name												
PO-87	Madisonville Bulkhead Project[1,2]	B	C	C	C	F							
TV-52	Franklin Floodgate Sinkable Barge and Pump Station[3]	B	C	C	C	C	C	C	F				
BA-82	Lafitte Area Levee Repair[2]	D	D	D	B	C	C	C	F				
BA-83	Rosethorne Wetland Assimilation Project[2]	D	D	B	C	C	C	C	F				
BA-84	Bayou Lafourche Fresh Water District–Walter S. Lemann Memorial Pump Station Renovations[2]	D	D	D	B	C	C	C	C	F			
PO-89	South Slidell Flood Control Structure[2]	D	D	D	B	C	C	C	C	F			
TE-78	Cut-Off/Pointe Aux Chene Levee[2]	D	D	D	B	C	C	C	C	F			
TV-58	Flood Control Structure at Boston Canal[2]	D	D	D	D	D	D	B	C	C	C	C	C
TV-60	Front Ridge Chenier Terracing/Protection[2]	D	D	D	D	D	D	C	C	C	C	C	C

Notes:
1–Project partially funded by surplus funds.
2–Application not submitted to OCD-DRU.
3–Application submitted and approved by OCD-DRU.

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Greater New Orleans Hurricane Protection System (GNO-HPS)

The GNO-HPS was authorized by PL 109-234, *Emergency Supplemental Appropriations Act for Defense, the Global War on Terror, and Hurricane Recovery, 2006,* and includes the West Bank and Vicinity project and the four components of the Lake Pontchartrain and Vicinity project (each of which is managed separately). Each of these projects is in turn comprised of multiple segments, which have separate design and construction schedules. Construction of these projects is 100 percent Federally funded. As the non-Federal sponsor, the State has contributed to the West Bank and Vicinity and Lake Pontchartrain and Vicinity projects through plans and specifications review, construction inspection assistance, and payment of LERRDS costs. A total of $293.3 million in 2008 and 2009 surplus funds was allocated to cover LERRDS costs for GNO-HPS. These funds are projected to be expended in their entirety prior to FY 2012. Following construction, the State will assume responsibility for the non-Federal sponsor's share of construction costs (35 percent). Consequently, beginning in FY 2012, the State will be responsible for paying the non-Federal sponsor's portion of construction costs to the USACE over a period of 30 years. Schedules for GNO-HPS projects are included in Table 3-7. These projects are fully funded for construction and will proceed with construction according to the schedules provided in Table 3-7. Principal issues that affect GNO-HPS project include design issues.

Berm to Barrier Projects

The construction of the Barrier Berm projects (see Chapter 2) introduced a significant amount of sediment into the State's barrier island systems. To maximize this opportunity and to improve resiliency of the material placed during construction of the berms, the State plans to convert existing barrier berms into barrier island restoration projects. The State plans to use approximately $100 million of Berm Enhancement Funding to maximize the Pelican Island and Pass La Mer to Chaland Pass Restoration (BA-38) project being constructed under CWPPRA and to construct the Riverine Sand Mining/Scofield Island Restoration (BA-40) project designed under CWPPRA. The State is evaluating potential uses for the remaining funds. Likely candidates include portions of Shell Island or the Chandeleurs.

Project schedules for Berm to Barrier projects are included in Table 3-8. Additional information about these projects is available on the State's coastal website. Project-specific expenditures for Berm to Barrier projects are presented in Appendix B.

Berm to Barrier funds may be used for any phase of project implementation. The Pelican Island Restoration Project is already funded for construction through CWPPRA; consequently Berm to Barrier funds will be used to augment the CWPPRA funds and construct a wider footprint if needed. The Scofield Island Restoration project will be funded for construction with Berm to Barrier funds. Any remaining funds after costs for these CWPPRA projects have been covered will be applied to the Shell Island Restoration project. Principal issues that could affect implementation of the two CWPPRA projects include permitting and land rights issues, while implementation of the Shell Island Restoration project is primarily affected by availability of funds.

Non-State Projects

Act 545 of the 2008 Legislature mandates that State Annual Plans include descriptions of all projects and programs relating to hurricane protection, restoration, and infrastructure in coastal Louisiana, including Federal-only projects, local parish and levee district projects, and those privately funded wetland enhancements and activities that require a Coastal Use Permit. Preparation of the FY 2012 Annual Plan included outreach to coastal parishes and levee districts to obtain information on local, non-State coastal projects. Appendix E contains an inventory of non-State projects identified through this outreach effort. Appendix E also includes an inventory of proposed local projects as presented in coastal parish Master Plans. These proposed projects represent desired local investment in protection and restoration activities. Appendix E also presents information on Federal coastal protection

Table 3-7. Projected Three-Year Schedules for Active GNO-HPS Projects (FY 2012–FY 2014).

		Fiscal Year	2012				2013				2014			
		Quarter	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
State ID	Project Name													
PO-56	Lake Pontchartrain and Vicinity (HPO)[1,2]		C	F	O	O	O	O	O	O	O	O	O	O
BA-56	West Bank and Vicinity[1,2]		C	C	C	C	C	C	F	O	O	O	O	O
PO-55	Lake Pontchartrain & Vicinity, IHNC Storm Surge Barrier LPV-IHNC-02[1,2]		C	C	C	F	O	O	O	O	O	O	O	O
PO-63	Lake Ponchartrain & Vicinity (PRO)[1,2]		C	C	C	C	C	C	C	C	C	F	O	O
PO-64	Lake Pontchartrain & Vicinity, Seabrook Lock LPV-IHNC-01[1,2]		C	F	O	O	O	O	O	O	O	O	O	O

Notes:
1–LERRDS funded by surplus funds.
2–OM&M duties are the responsibility of local levee districts.

Table 3-8. Projected Three-Year Schedules for Active Berm to Barrier Projects (FY 2012–FY 2014).

		Fiscal Year	2012				2013				2014			
		Quarter	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
State ID	Project Name													
BA-40	Riverine Sand Mining/Scofield Island Restoration (CWPPRA, NMFS Lead)[1]		D	D	C	C	C	C	C	F	O	O	O	O
	Shell Island Restoration (component of LCA Barataria Basin Shoreline Restoration)[1,2]		D	D	D	D	D	C	C	C	C	C	F	O

Notes:
1–Schedule still under development and may be refined.
2–Project to be funded with remaining Berm to Barrier funds.

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projects for which local parishes or levee districts serve as the local sponsor. Finally, Appendix E presents information on non-State projects that have received State Restoration Partnership grants to support implementation. Adding non-State projects to this inventory will be a priority in future years as the State continues to gather information about non-State coastal protection and restoration efforts.

FY 2012–FY 2014 Funding Projections

Table 3-9 presents projected State revenues over the next three fiscal years. Tables 3-10 through 3-12 show how the State proposes to spend its coastal budget over the next three fiscal years. Figures 3-3 through 3-5 depict projected expenditures by project phase for FY 2012–FY 2014, respectively. While the three-year projections provide readers with an informative picture of the State's upcoming activities, the Legislature only reviews and approves expenditures for FY 2012.

The implementation plan incorporates projects that have received funding for planning, design, construction, or OM&M. The State is exploring new funding sources, with the intent of obtaining this level of funding consistently from year to year so that new projects can continue to be brought on line. The State acknowledges that new project opportunities may arise as Federal funds become available after the approval of the FY 2012 Annual Plan. In this event, any requests for additional funds will be submitted to and approved by the CPRA.

Sources of Coastal Funding

Faced with funding shortfalls that are projected to continue in coming fiscal years, the State is aggressively pursuing new sources of funding to maintain momentum with project implementation.

Table 3-9. Projected Three-Year Revenues (FY 2012–FY 2014).

Revenue Sources	FY 2012	FY 2013	FY 2014	Program Total (FY 2012–FY 2014)
CPR Trust Fund Annual Revenue[1]	$32,622,357	$35,000,000	$35,000,000	$102,622,357
GOMESA[1]	$222,725	$222,725	$222,725	$668,175
DOTD Interagency Transfer[1]	$4,000,000	$4,000,000	$4,000,000	$12,000,000
CIAP	$70,009,943	$67,288,730	$16,820,270	$154,118,943
Surplus '07	$85,501,716	$52,376,734	$10,128,725	$148,007,176
Surplus '08	$33,792,307	$51,868,685	$13,120,455	$98,781,447
Surplus '09	$42,272,396	$10,493,794	$4,926,250	$57,692,439
Hazard Mitigation Grant Program[2]	$45,270,000	$0	$0	$45,270,000
Community Development Block Grants	$5,780,769	$12,561,714	$5,217,517	$23,560,000
Berm to Barrier[3]	$36,266,667	$54,733,333	$9,000,000	$100,000,000
FEMA Reimbursement for OM&M	$10,500,000	$0	$0	$10,500,000
USFWS Reimbursement for Vegetative Plantings	$98,750	$0	$0	$98,750
Reimbursement for Federal In-Kind Credit	$8,491,386	$8,751,041	$9,021,083	$26,263,511
CWPPRA Match (Phase 1, Phase 2, OM&M)[4]	$20,204,593	$25,264,314	$23,296,943	$68,765,850
Total Projected Revenue	$395,033,609	$322,561,070	$130,753,967	$848,348,647

Notes:
1–Annually recurring revenue source.
2–HMGP project schedules are currently under development pending FEMA approval; HMGP funds will be allocated according to project schedules.
3–Berm to Barrier project schedules are currently under development and may be refined at a later date; funds will be distributed according to final project schedules.
4–Represents funds encumbered in prior years.

Table 3-10. Projected Three-Year Expenditures[1] (FY 2012–FY 2014).

Program/Funding Source	FY 2012	FY 2013	FY 2014	Program Total (FY 2012–FY 2014)
CWPPRA Projects[2]	$19,837,819	$20,000,000	$20,000,000	$59,837,819
WRDA Projects	$21,143,566	$19,489,602	$8,600,000	$49,233,168
CIAP Projects	$70,009,943	$67,288,730	$16,820,270	$154,118,943
Remaining Surplus '07 Projects[3]	$72,501,716	$45,433,365	$10,128,725	$128,063,807
Remaining Surplus '08 Projects[3]	$26,630,598	$47,551,966	$12,803,735	$86,986,299
Remaining Surplus '09 Projects[3]	$16,763,783	$10,188,794	$4,926,250	$31,878,826
Community Development Block Grants	$5,780,769	$12,561,714	$5,217,517	$23,560,000
Hazard Mitigation Grant Program[4]	$45,270,000	$0	$0	$45,270,000
GNO-HPS 30-Year Payback	$35,000,000	$80,000,000	$80,000,000	$195,000,000
Berm to Barrier[5]	$36,266,667	$54,733,333	$9,000,000	$100,000,000
OM&M- Projects[6]	$13,453,166	$10,185,160	$6,665,571	$30,303,896
OM&M- Marine Debris Removal (FEMA)	$8,650,000	$0	$0	$8,650,000
OM&M- Hurricane Damage Repairs (FEMA)	$1,850,000	$0	$0	$1,850,000
Lost Lake Vegetative Plantings (USFWS)	$98,750	$0	$0	$98,750
Ongoing Programs (see Table 3-11)[6]	$29,697,972	$29,000,000	$29,500,000	$88,197,972
Support/Emergency Response/ Reserve[6]	$14,543,901	$17,725,000	$17,725,000	$49,993,901
Operating Costs (see Table 3-12)	$23,773,630	$24,462,249	$25,206,624	$73,442,503
Total Planned Expenditures	$441,272,280	$438,619,912	$246,593,692	$1,126,485,884

Notes:
1–Represents proposed expenditures provided that commensurate level of funding is received.
2–Because CWPPRA projects compete for funding annually, CWPPRA expenditures as presented in Appendix B (which include projected expenditures for approved projects only) do not adequately capture likely CWPPRA expenditures in outlying years. The State's estimated CWPPRA expenditures for FY 2013–FY 2014 are therefore based on prior years' expenditures.
3–Represents expenditures not otherwise captured in this table.
4–HMGP project schedules are under development pending FEMA approval; HMGP funds will be allocated according to project schedules.
5–Berm to Barrier project schedules are currently under development and may be refined at a later date; funds will be distributed according to final project schedules.
6–FY 2012 expenditures partially funded by surplus funds.

Table 3-11. Ongoing Programs Projected Three-Year Expenditures (FY 2012–FY 2014).

Program Name	FY 2012	FY 2013	FY 2014	Program Total (FY 2012–FY 2014)
Beneficial Use Program[1]	$7,000,000	$7,000,000	$7,000,000	$21,000,000
Barrier Island Maintenance Program[1]	$3,500,000	$3,500,000	$3,500,000	$10,500,000
Coastal Science Assistantship Program	$300,000	$300,000	$300,000	$900,000
Assistance to Levee Authorities	$1,000,000	$1,000,000	$1,000,000	$3,000,000
Donations for Mitigation Activities	$1,602,341	$1,600,000	$1,600,000	$4,802,341
Louisiana Applied Coastal Engineering and Science Program[2]	$7,000,000	$7,000,000	$7,000,000	$21,000,000
Louisiana Coastal Area Science and Technology Program[2]	$3,500,000	$3,500,000	$3,500,000	$10,500,000
System Wide Assessment and Monitoring Program[2]	$2,000,000	$2,500,000	$3,000,000	$7,500,000
GIS Lab Support[2]	$500,000	$500,000	$500,000	$1,500,000
Vegetative Plantings	$400,000	$400,000	$400,000	$1,200,000
Workshop and Conference Development	$100,000	$125,000	$125,000	$350,000
Youth Wetlands Education and Outreach Program	$500,000	$500,000	$500,000	$1,500,000
Restoration Partnerships	$1,000,000	$1,000,000	$1,000,000	$3,000,000
Atchafalaya Basin Natural Resources Inventory and Assessment[2]	$1,220,631	$0	$0	$1,220,631
Support for Department of Wildlife and Fisheries	$75,000	$75,000	$75,000	$225,000
Programmatic Total	$29,697,972	$29,000,000	$29,500,000	$88,197,972

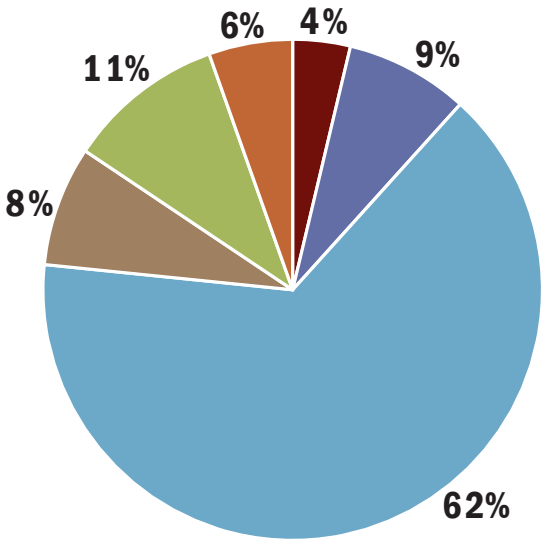
Notes:
1–FY 2012 expenditures partially funded by surplus funds.
2–FY 2012 expenditures fully funded by surplus funds.

Table 3-12. State Protection and Restoration Projected Three-Year Operating Expenditures (FY 2012–FY 2014).

Program	FY 2012	FY 2013	FY 2014	Program Total (FY 2012–FY 2014)
CPRA	$414,218	$485,144	$485,144	$1,384,506
OCPR[1]	$16,982,772	$17,502,083	$18,042,166	$52,527,021
OCM	$3,010,898	$3,131,334	$3,256,587	$9,398,819
GOCA	$1,465,782	$1,367,730	$1,367,730	$4,201,242
DNR Secretary	$1,714,960	$1,783,558	$1,854,901	$5,353,419
Office of the Attorney General	$185,000	$192,400	$200,096	$577,496
Total Operating Costs	$23,773,630	$24,462,249	$25,206,624	$73,442,503

Notes:
1–Reflects annual addition of $4 million in DOTD interagency funds to support flood protection.

Figure 3-6. Projected FY 2012 Expenditures by Project Phase.



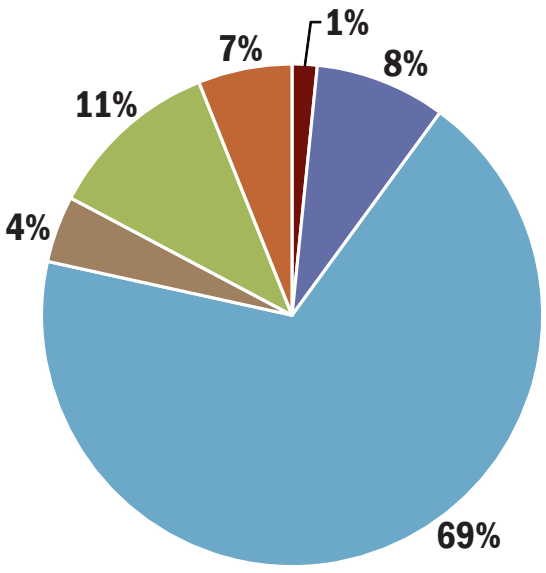
FY 2012 Total Expenditures

- **Planning ($13.5 million)**
- **Engineering and Design ($32.9 million)**
- **Construction ($223.3 million)**
- **Operation, Maintenance and Monitoring ($28.3 million)**
- **Ongoing Programs and Initiatives ($39.2 million)**
- **Operating Costs ($23.8 million)**

Total Expenditures $361 million

- Construction includes Beneficial Use ($7.0 million), Donations for Mitigation ($1.6 million), Vegetative Plantings ($400,000), and Lost Lake Vegetative Plantings ($98,750)
- OM&M includes BIMP ($3.5 million), Marine Debris Removal ($8.7 million) and Hurricane Damage Repairs ($1.9 million)
- Ongoing Programs includes Support/Emergency Response/ Reserve ($14.5 million)
- Total excludes HMGP ($45.3 million) and GNO-HPS Payback ($35 million)

Figure 3-7. Projected FY 2013 Expenditures by Project Phase.



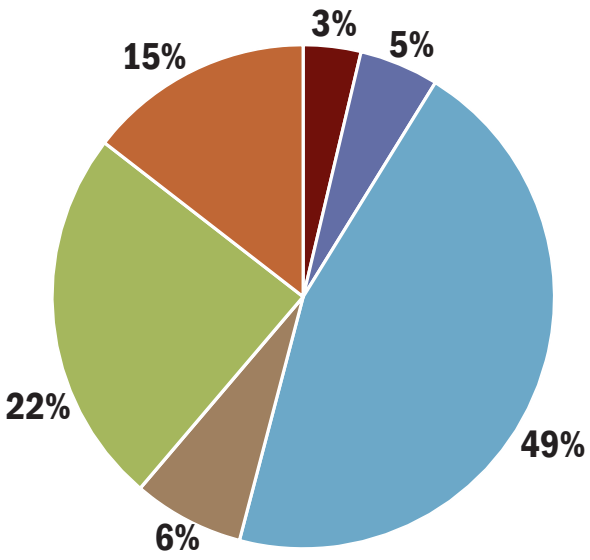
FY 2013 Total Expenditures

- **Planning ($5.5 million)**
- **Engineering and Design ($28.0 million)**
- **Construction ($247.6 million)**
- **Operation, Maintenance and Monitoring ($14.6 million)**
- **Ongoing Programs and Initiatives ($38.5 million)**
- **Operating Costs ($24.5 million)**

Total Expenditures $359 million

- Engineering and Design and Construction include CWPPRA adjustment for outlying years (see Table 3-10 for explanation)
- Construction includes Beneficial Use ($7.0 million) , Donations for Mitigation ($1.6 million), and Vegetative Plantings ($400,000)
- OM&M includes BIMP ($3.5 million)
- Ongoing Programs includes Support/Emergency Response/ Reserve ($17.7 million)
- Total excludes GNO-HPS Payback ($80 million)

Figure 3-8. Projected FY 2014 Expenditures by Project Phase.



FY 2014 Total Expenditures

- **Planning ($5.4 million)**
- **Engineering and Design ($7.5 million)**
- **Construction ($81.2 million)**
- **Operation, Maintenance and Monitoring ($10.5 million)**
- **Ongoing Programs and Initiatives ($36.7 million)**
- **Operating Costs ($25.4 million)**

Total Expenditures $167 million

- Engineering and Design and Construction include CWPPRA adjustment for outlying years (see Table 3-10 for explanation)
- Construction includes Beneficial Use ($7.0 million), Donations for Mitigation ($1.6 million), and Vegetative Plantings ($400,000)
- OM&M includes BIMP ($3.5 million)
- Ongoing Programs includes Support/Emergency Response/ Reserve ($17.7 million)
- Total excludes GNO-HPS Payback ($80 million)

In the meantime, the State will continue to make the most efficient use of possible funding from its current sources, which include the following:

- The state Coastal Protection and Restoration (CPR) Trust Fund is largely supported by mineral revenues and severance taxes on oil and gas production on state lands. The CPR Trust Fund provides funding for the coastal program's ongoing operating expenses and for continuing State efforts in coastal restoration and protection.
- BOEMRE will allocate approximately $497 million in CIAP funds to Louisiana and its 19 coastal parishes over a four-year period, of which the State will receive 65 percent. All State CIAP funds will be expended by December 2016.
- The Louisiana Legislature allocated funds from State budget surpluses in 2007, 2008, and 2009 to the coastal program, providing a $790 million investment in coastal protection and restoration efforts.
- The Gulf of Mexico Energy Security Act (GOMESA) provides four Gulf Coast states, including Louisiana, with 37.5 percent of Federal revenue gained from new OCS drilling leases. Full funding from GOMESA will begin in 2017 and is expected to contribute $100–200 million to Louisiana each year. No end date has been established for GOMESA funding. The State is considering bonding GOMESA funds based on expected revenue from future oil and gas royalty payments, a strategy that could contribute significant funding to the coastal program over the near-term. The State is also considering borrowing GOMESA funds from the Federal government based on expected future royalties. Before bonding or borrowing can take place, however, BOEMRE must publish regulations for allocating funds to the State, and the State must estimate the amount of money that can be expected from oil and gas revenues (both short- and long-term). With these estimates, the potential revenue stream can be evaluated.
- Louisiana received $1.06 billion in CDBG funding to assist in the recovery from Hurricanes Gustav and Ike. This total includes an allocation of $27.4 million for State coastal protection and restoration projects.
- FEMA and GOHSEP allocated $50 million in HMGP funding for Hurricanes Katrina and Rita recovery and $33 million for Hurricane Ike recovery.

The State is projecting funding shortfalls in coming fiscal years and is aggressively pursuing new sources of funding to maintain its momentum with project implementation.

- The Office of the Govenor generates a Capital Outlay Budget Proposal with a list of projects to be granted cash and non-cash lines of credit. State and non-State entities may submit Capital Outlay requests for inclusion in the proposal. In FY 2012, the CPRA requested Capital Outlay funding to supplement implementation of nine coastal projects. Additional information about this request is presented in Appendix F. Final decisions on Capital Outlay requests will be announced at the close of the 2011 Regular Legislative Session.

Development of Funding Projections

The budget projections in Tables 3-10 through 3-12 show the amount of State funds that would actually be needed to accomplish the proposed implementation plan for the next three fiscal years. These budget projections improve further on previous projections by more closely reflecting actual expenditures and the amount of work that will be performed, which allows citizens and legislators to more accurately track progress on individual projects.

When developing these projections, the planning team worked with the following assumptions:

1. Projected CPR Trust Fund revenues are based on the most recent available information; however, this revenue is difficult to estimate in advance because of a complicated formula and funding triggers based largely on fluctuating mineral revenues.
2. All remaining funds earmarked for projects from 2007, 2008, and 2009 surplus funds were carried forward and are shown as revenue for the purposes of the FY 2012 Annual Plan.
3. Funding projections represent known avenues through which funding will be received. However, many uncertainties persist regarding the percentages and amounts of funding to be provided by the Federal government and local sponsors. Should more dollars become available, the State will be able to expand its efforts and allocate these funds under the direction of the CPRA.

NRDA

NATURAL RESOURCE DAMAGE ASSESSMENT:

A POTENTIAL SOURCE OF FUTURE FUNDING

The Oil Pollution Act of 1990 (OPA) and the Louisiana Oil Spill Prevention and Response Act (LOSPRA) provide for restoration of Federal and State natural resources injuries, and loss of ecological services, from responsible parties through the use of the Natural Resource Damage Assessment (NRDA). The 2010 Deepwater Horizon oil spill resulted in significant injury to natural resources and ecosystem services in coastal Louisiana; consequently the State is pursuing a NRDA to fund restoration activities that will assist in restoring injuries to natural resources caused by the spill.

The NRDA process is a collaborative effort between Federal trustees that represent the interests of the United States, State trustees of natural resources, and any Federally recognized Indian tribe or foreign country that has natural resource damages. The CPRA has been designated the lead trustee for the State of Louisiana with regard to the Deepwater Horizon oil spill.

The NRDA process is divided into three parts:

- **Pre-Assessment-** Data collection to determine if the pursuit of damage assessment and restoration is warranted.
- **Restoration Planning-** Evaluation of injuries and losses, identification of available methods for restoration, and determination of the appropriate extent of restoration.
- **Restoration Implementation-** Design and implementation of restoration activities with the goal of restoring injured resources to their pre-spill, baseline condition and compensating for the temporal losses of ecosystem services from the time of injury to resources to the time of full restoration.

The NRDA process is involved and may take years to complete. However, NRDA has been successfully implemented on multiple occasions in coastal Louisiana to deliver real benefits to Louisiana's citizens and their natural resources. Some of the restoration projects identified as part of Louisiana's coastal programs could be funded in the future as part of the NRDA from the Deepwater Horizon oil spill.

Forecasting the Future Funding Picture

The 2012 Master Plan will consider project implementation over a 50-year planning horizon. To support this effort, the State has identified six major sources of funding that may be available over the next 50 years to support future coastal restoration and flood risk reduction projects. Two sources may provide potential funding as a result of the Deepwater Horizon oil spill; the remaining sources are a mixture of State and Federal sources. The State may receive project funding through NRDA as a result of natural resource damages from the spill, and, as a result of legislation, the State may receive project funding through penalties from the Deepwater Horizon oil spill. Additionally, the State will continue to receive GOMESA funding. The level of GOMESA funding will vary over specific time periods based on revenues from offshore drilling. The State is also seeking to develop a variety of credit programs (see Chapter 2), including carbon credits, nutrient credits, and possibly credits associated with future restoration activities. Finally, Federal programs will provide funding for future projects authorized by CWPPRA and WRDA. This funding requires different levels of matching dollars by the State, which is drawn from the CPR Trust Fund and the General Fund. The State is currently working to develop funding projections for each of these sources for the next 50 years.

As the Deepwater Horizon spill illustrates, the State needs funding flexibility to respond to changing conditions on the ground.

Flexibility to Respond to Changing Conditions

Revenue and expenditure projections in Tables 3-9 and 3-10 are based on the most recent available information. Tables 3-9 and 3-10 present a forecast based on a snapshot in time. However, as last year's Deepwater Horizon oil spill illustrates, the coastal program needs some degree of funding flexibility to enable the State to respond appropriately to changing conditions on the ground. The CPRA has been granted authority to reprogram dollars from approved funding streams and allocate the dollars to best meet new opportunities or needs. Reprogramming of existing and new funds will likely occur, with approval from the CPRA, to ensure that limited coastal program funds are allocated to the areas of greatest need and in a manner that will provide the greatest overall benefit to the coast. Such flexibility allows the coastal program to respond effectively to unforeseen events that take place outside the legislatively mandated planning cycle.

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4. The 2012 Master Plan

Background

The 2007 Master Plan, released in response to Act 8's directive to integrate coastal protection and restoration activities, established four broad planning objectives as benchmarks for implementing coastal protection and restoration projects. The 2007 Master Plan also identified large-scale measures needed to achieve a sustainable coast. This initial Master Plan, though groundbreaking, was a conceptual document and was not intended to address all of the numerous complex issues that coastal Louisiana faces. To accommodate the dynamic nature of coastal processes, Act 8 mandates the update of the Master Plan every five years to incorporate new data and planning tools as they become available. To comply with this mandate, the first update of the Master Plan must be submitted to the Louisiana Legislature in March 2012.

The 2012 Master Plan will present a new approach for considering the future of the coast. This approach will identify protection and restoration projects that achieve multiple objectives (integrated planning). The plan will also propose a specific order for building projects to ensure that the most important projects are constructed first (prioritization). The State began laying the foundation for this new approach in FY 2010 with the development of a Prioritization Tool designed to help identify portfolios of "high-value" projects. Progress on the Master Plan Update continued in FY 2011 with the establishment of a Master Plan Delivery Team (MPDT) that is committed full-time to the development of the 2012 update. This chapter presents the progress by the MPDT and its partners in developing the 2012 Master Plan.

A Legislative Mandate

Louisiana law requires that the Master Plan be upgraded every five years so that the State can respond to changes on the ground and innovations in science, engineering, and policy. The 2012 Master Plan is the second of what will be an ongoing series of Master Plans, each one improving on work done before. According to its legislative mandate, the State must build on the previous Master Plan, upgrading as necessary, but staying true to an overarching focus on comprehensive coastal protection and restoration.

> The 2012 Master Plan will be the first update of the State's first Master Plan. The Master Plan Update will be submitted to the Legislature in March 2012.

What the 2012 Master Plan Will Deliver

Louisiana's 2012 Master Plan will provide answers to two questions that coastal residents have long been asking: just how bad is the coastal crisis going to get, and what will be done about it? People are worried about flooding, and they want to know what to expect. The plan will describe how Louisiana's land loss and flooding problems will affect people, businesses, and natural areas in the coming decades. This will help communities and their leaders know what to expect as they plan for the future. People also want action. They

LINKS

LINKS WITH THE 2007 MASTER PLAN

- **Helping people, not just buildings, businesses, and birds.** The 2007 Master Plan had four objectives that guided its recommendations. These objectives put forth a sweeping mandate: to protect and restore the human and natural communities in south Louisiana. The 2012 Master Plan will carry forward these four objectives, retaining the broad scope of the 2007 plan.
- **Founding principles.** The 2012 Master Plan will use other principles of the 2007 plan, such as an emphasis on cost efficiency and a focus on finding ways to work as closely as possible with the natural resources and cycles of the landscape.
- **Overall approaches.** Beyond principles, the 2007 Master Plan also outlined the scope of several approaches to local problems, such as options for addressing flood risk reduction. The 2012 Master Plan will consider these project ideas and others like them.
- **An ongoing conversation.** The 2012 Master Plan will use much of what was learned in meetings and conversations with citizens and local leaders when the 2007 Master Plan was being developed. The new plan represents the latest chapter of an ongoing conversation with the citizens of Louisiana.

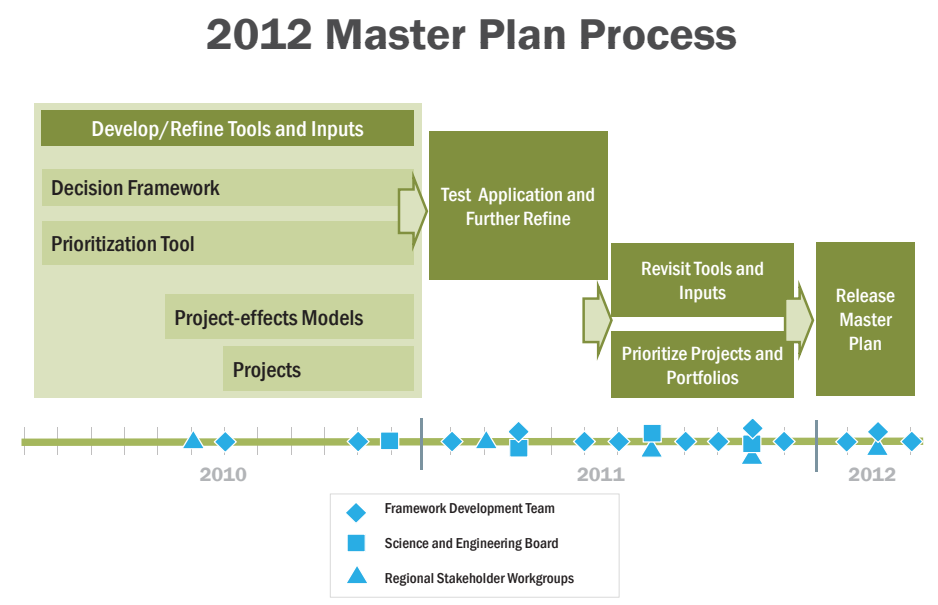
PROCESS AND TIMELINE

2012 MASTER PLAN PROCESS AND TIMELINE

Work on the 2012 Master Plan began in June 2009, when the initial groundwork was laid for creating the Prioritization Tool. Prioritization Tool development continued through 2009-2010 with the demonstration of the tool's capabilities in a Proof-of-Concept analysis. (See Appendix B in the FY 2010 and FY 2011 Annual Plans.) Development of the 2012 Master Plan continued in January 2010, with the establishment of the MPDT, which is dedicated to work on the Master Plan Update. The MPDT and its partners (see below "Coordination with Other Partners") identified key elements that would comprise the 2012 Master Plan and established a timeline for the technical analysis of project options as well as outreach to Louisiana citizens, communities, and leaders:

- **January-December 2010- Develop Inputs (Decision Framework, Projects) and Tools (Prioritization Tool, Project-effects Models).** The inputs (which include the projects that will be evaluated and the factors that influence project outcomes) and the tools (which will estimate project effects on the coastal landscape) will be largely completed. Additional information on each of the inputs and tools is presented below.
- **January-June 2011- Test Application and Refine.** A future-without-action (FWOA) scenario will be developed using the Project-effects Models. This scenario will show what coastal effects can be expected if the State does nothing more to protect or restore the coast than what it has already committed to do. The MPDT will use the FWOA as a baseline scenario, comparing proposed projects effects against it, to see how much or how little the projects will help meet the State's overall coastal goals. The models will also evaluate the projects in test cases, and the results will be examined to identify any areas of needed refinement.
- **July-December 2011- Revisit Tools and Inputs/Prioritize Projects and Portfolios.** The projects will be subjected to detailed analysis by the tools. This will allow the State to begin prioritizing the projects and developing draft project portfolios—groups of projects that achieve coast-wide benefits. The results of this analysis will be presented in the Draft 2012 Master Plan.
- **January-March 2012- Release Master Plan.** The Draft 2012 Master Plan will be released for public comment. Public comments will be addressed in the Final 2012 Master Plan, which will be submitted to the Legislature in March 2012.

All aspects of the 2012 Master Plan will be developed and conducted with support from a diverse array of stakeholders and technical experts. These partners will ensure that the process is informed by the full spectrum of viewpoints on coastal issues. Additional information on outreach and engagement efforts is presented in subsequent portions of this chapter. A timeline for the Master Plan Update process and the points of stakeholder engagement is presented in the figure below.



want the State to protect them from flooding and they want wetland loss addressed. The 2012 Master Plan is focused on taking the action needed to address these concerns.

To deliver an effective but feasible action plan, the 2012 Master Plan will propose projects that will reduce flooding risks using a range of methods, from levees, to building up landscape features, to helping communities floodproof their homes. The plan will also propose projects that build wetlands, restore coastal landscape features, and help sustain the multitude of ecosystem services that support communities, nationally significant industries, and commercial operations. In order to bring flood risk reduction and wetland restoration together into one integrated plan, the 2012 Master Plan will present portfolios of projects that combine both objectives. The 2012 Master Plan will present the best possible use of dollars based on the current state of knowledge, while laying the groundwork for improvement in coming years.

> The 2012 Master Plan is focused on action, but it will also acknowledge that the State cannot solve all of the coastal protection and restoration concerns facing Louisiana.

The 2012 Master Plan will also acknowledge that the State cannot solve all of the protection and restoration concerns that coastal Louisiana currently faces. There are not enough financial and natural resources to construct every possible protection or restoration project. In addition, land loss trends may simply not be

DECISIONS

A CLOSER LOOK AT HOW DECISIONS WILL BE MADE

The State and its partners have created many plans for the coast over the last 15 years, including the original 2007 Master Plan. As these plans show, a great deal is known about Louisiana's coastal crisis and there are some good ideas for addressing it. However, to date, the State has lacked a common view as to how these ideas should work together as one package. The 2012 Master Plan is designed to offer that common view, that package of protection and restoration measures whose outcomes will support a sustainable coast. Creating that common view requires a better way of evaluating and sequencing projects than the State has previously used. To meet these needs, a Decision Framework for the 2012 Master Plan is being developed. This framework will guide the Prioritization Tool and Project-effect Models. The models and Prioritization Tool will help the State and its partners identify groups, or portfolios, of preferred projects. These projects will make up the essence of the 2012 Master Plan. Components of the Decision Framework include the following:

Vision and Targets. The vision describes desired flood risk reduction and restoration outcomes at the regional level. Targets quantify this vision and measure the progress that projects make toward achieving the vision for each region. Targets could reflect desirable outcomes (such as conditions that support a specific commercial industry) or outcomes to avoid (such as harmful algal blooms caused by freshwater diversions). Examples of targets under consideration include:

- Flood risk reduction levels for communities; and
- Suitability/amount of habitat for recreational or commercial species.

Decision Criteria/Weights. Decision criteria are measurable factors that reflect the kind of future coast the State wants to create. The criteria and weights that the State selects will guide the Prioritization Tool's project analyses. Examples of decision criteria under consideration include:

- How expensive projects are to build;
- How long it takes to see benefits from projects; and
- How long a project's effects are expected to last.

Constraints. Constraints are factors that affect planning conditions but are beyond the influence of the State. The framework uses constraints to help identify feasible portfolios. Examples of constraints under consideration include:

- Available funding;
- Incompatibilities among projects; and
- Availability of fresh water or sediment for restoration.

reversible in some areas, regardless of the action taken. The State will confront these tough choices using a thorough outreach effort and its analytic tools.

Making Sound Decisions

The 2007 Master Plan spoke of using a "standardized scoring system" to help make hard choices about which projects should be selected. The 2012 Master Plan will advance the 2007 guidance a step further by using Project-effects Models and a Prioritization Tool to illustrate the practical implications of different project options and tradeoffs. Understanding these options requires the tools to consider thousands of possible combinations of projects, uncertainties, and scenarios. By doing these calculations, the tools allow the review of crucial variables in a rapid and systematic way.

The tools' results can be translated so that citizens and State leaders can take stock of how projects will perform in the real world. These results will ground the collective conversation about which projects to build and will ensure that decisions take into account important factors like cost, construction time, and how combinations of projects will work together. With this information in hand, the State can make better decisions. The tools are being designed and reviewed by scientists and engineers based here in Louisiana and around the nation.

> The Project-effects Models and Prioritization Tool will provide scientifically based information about how individual projects and collections of projects will help the State create a sustainable coast.

INPUTS

A CLOSER LOOK AT INPUTS — PROJECTS

The 2012 Master Plan will present an action plan centered on portfolios of projects. In order to develop these portfolios, a list of projects for evaluation had to be developed. The MPDT spent approximately six months in FY 2011 developing a comprehensive list of projects for evaluation, using ideas and information created by past planning efforts in coastal Louisiana. The list was compiled and refined using the seven-step process outlined below. The projects that make up the final portfolios in the 2012 Master Plan will be pulled from a Candidate List of approximately 300 projects.

- **Step 1: Compile an initial list.** The MPDT compiled a list of over 1,000 existing project concepts from other planning efforts in coastal Louisiana, none of which had been funded for construction.
- **Step 2: Consider the need to reduce the list to ensure an efficient and effective analysis.** Because there is not enough time or money to analyze 1,000 projects, the initial list needed to be trimmed to a more manageable size.
- **Step 3: Establish criteria for selecting candidate projects.** A project's expected effects had to cover an area of greater than 500 acres, and the project's description had to be detailed enough to give the Project-effects Models information for analysis. Marsh creation projects in the lower Atchafalaya or Wax Lake Deltas were not considered, because natural land building is already occurring in those areas.
- **Step 4: Eliminate duplication.** Some projects had overlapping scopes, goals, and physical locations. The criteria above helped the MPDT decide which projects should take precedence when overlap occurred.
- **Step 5: Group project concepts when appropriate.** When possible, smaller projects were grouped into one large project to capture the diversity of ideas and streamline the modeling analysis.
- **Step 6: Consider a consistent, comprehensive approach to diversions.** With help from the Framework Development Team (see "Coordination with Other Partners" below), the MPDT developed three discharge capacities for diversion projects, as well as larger scale use of the river in some locations.
- **Step 7: Compile a final candidate project list of approximately 300 projects.** The list represents a variety of projects throughout the coast. The MPDT will model and analyze these projects. Based on the results of these analyses and the goals and project outcomes that are established, a subset of these 300 projects will be included in the 2012 Master Plan project portfolios.

The State is working to ensure that the Gulf Coast Ecosystem Restoration Task Force and the NRDA process for areas affected by the Deepwater Horizon oil spill are closely coordinated with the 2012 Master Plan.

A Vision for the Future

The Project-effects Models and Prioritization Tool will not make decisions for the State. They will not generate a simple answer or even a single ranking of projects. Instead, these tools will provide scientifically based information about how individual projects and collections of projects will help the State create a sustainable coast.

In order to make the right decisions, the State needs a clear idea of the future it wants to create. Having a complete explanation of this future, expressed in a set of vision documents, will help the State measure progress and establish specific project outcomes. The State is working on a coastal vision for the next 50 years that will integrate the four objectives of the 2007 Master Plan as well as lessons learned from the past two decades of coastal planning in Louisiana. In keeping with the thinking behind these prior efforts, the vision will show where the State plans to invest in the following activities:

- Reduce flood risks;
- Maximize use of the rivers in coastal basins;
- Manage the salinity of water in critical areas;
- Use sediment to bolster the coastal landscape; and
- Support industries that depend on a healthy coast.

It is important to note that the vision will not show the individual projects that the State plans to build in the next 50 years. Nor will the vision show new geographic

TOOLS

A CLOSER LOOK AT TOOLS

PROJECT-EFFECTS MODELS AND PRIORITIZATION TOOL

What are the Project-effects Models? The models are computer programs that use mathematical representations of Louisiana's coast to assess two things: how the coast will change if no further action is taken, and how potential projects will affect the landscape. The models are organized into seven different modules that capture a range of possible landscape changes and project effects. The models' results will provide a rough preview of why the State needs to take action, and they will show the kinds of action that bring good results.

What is the Prioritization Tool? The Prioritization Tool is a computer program that compares how different coastal restoration and protection projects could work in Louisiana. The tool uses a decisional analysis process to select portfolios of protection and restoration projects that achieve multiple objectives (integrated planning) and sequence their implementation so that the most important projects are constructed first (prioritization). The Prioritization Tool employs a transparent, quantitative plan development process that incorporates a broad range of decision criteria, constraints, and uncertainties.

How do the tools work together? The Project-effects Models will create numeric predictions of different project effects. The Prioritization Tool will analyze the data produced by the models and provide prioritized lists of individual projects using assumptions about future conditions, or scenarios. Next, the Prioritization Tool will produce combinations of these projects that achieve coast-wide goals for each scenario, given the constraints that are faced. These combinations are called project portfolios. Finally, the Prioritization Tool will help highlight the different tradeoffs implied by each portfolio. This will help inform decisions about which projects should be included in the 2012 Master Plan.

Why use computerized tools to do this work? The sheer number of projects, uncertainties, and possible scenarios that must be considered would overwhelm even the best group of experts. The tools' results allow the review all of these variables in a systematic way, ensuring a strong foundation for decision making.

The State is seeking the ideas of citizens and local leaders to ensure that the 2012 Master Plan reflects local needs and knowledge.

boundaries for the coast. Instead, the vision will show how specific ecosystem services, such as saltwater fisheries and the landscape's ability to buffer storm surge, will change over the coming decades.

The vision will also incorporate lessons learned. One such lesson concerns flood risk reduction. The original wording in the 2007 Master Plan stated that Louisiana would make sure that assets were protected, at a minimum, from a storm surge that has a one-percent chance of occurring in any given year. The State has more recently acknowledged that this level of protection coast-wide may not be feasible. With even small levee structures costing hundreds of millions of dollars, there is simply not enough money to meet the one-percent standard in every location.

Based on the vision and the criteria the State selects for weighting projects, the Project-effects models and Prioritization Tool will suggest multiple strategies for investing in coastal protection and restoration projects. These strategies will take the form of project portfolios—groups of projects that achieve coast-wide benefits. In this process, the tools will consider the constraints that are a fact of life in coastal Louisiana; for example, the limited money, water, and sediment that are available for coastal projects. The tools will also consider possible future conditions, or scenarios, that will affect the way coastal projects work. After considering multiple portfolios, the State and its partners will select a single project portfolio that best moves Louisiana toward its vision of a sustainable coast. This project portfolio will be the centerpiece of the 2012 Master Plan.

Concurrent Efforts

The 2012 Master Plan is not the only large-scale planning effort currently under development in coastal Louisiana. The State is also a partner in several other planning efforts, including the Gulf Coast Ecosystem Restoration Task Force convened by the White House and the NRDA process aimed at restoring areas affected by the Deepwater Horizon oil spill. The MPDT is working to ensure that these other planning efforts do not diverge from the direction of the Master Plan Update, but rather that all efforts are closely coordinated and integrated to the maximum extent possible. Members of the MPDT are coordinating with the planning teams for each of these other efforts and regularly communicate with decision makers about the process and approach of the Master Plan Update. In this way, the MPDT is working to ensure that the goals of the 2012 Master Plan support, and are supported by, these other initiatives.

Coordination With Other Partners

The State is bringing in partners to ensure that the 2012 Master Plan is reviewed by nationally-known experts and rooted in the daily realities lived by coastal residents. Principal review groups for the Plan include:

- **Framework Development Team (FDT) —** A 32-member group of Federal, State, and local government representatives, NGOs, business and industry representatives, and coastal researchers. FDT members provide specific guidance on major elements of 2012 Master Plan. FDT members also reach out to citizens who share their interests, bring those citizens' ideas to the table, and report back to the citizens about how their ideas were discussed.
- **Science and Engineering Board (SEB) —** A nine-member group of scientists and engineers with national or international experience. The SEB provides independent technical review of plan elements, with members making specific recommendations about ways to improve the plan.

OUTREACH

2012 MASTER PLAN OUTREACH PRINCIPLES

- **Scope.** Citizens should be given opportunities to learn about and comment on the tools and processes that create the plan and not just the finished plan itself.
- **Timing.** Citizens' comments and ideas should be received, reviewed, and incorporated while the plan is being developed, not after the fact.
- **Fair hearing.** Not every citizen preference will be included in the plan. However, the State can promise that each idea will receive a fair hearing and response, and that questions will be answered promptly.
- **Access.** The State has an obligation to provide a variety of ways for citizens to learn about and participate in the master planning process, including small group gatherings, web offerings, direct communication with local and state government, and public meetings.

- **Technical Advisory Committees (TACs) —** Small, three- to five-member advisory groups of nationally known scientists and engineers. The TACs advise the MPDT in three areas: modeling coastal processes, projects prioritization, and protection of Louisiana's cultural heritage.

Opportunities for Citizens

The State has begun to lay the groundwork for the plan, but it cannot do this work alone. Without the ideas and input of citizens and local leaders, the 2012 Master Plan will not reflect local needs and knowledge. There are several ways for Louisiana citizens to learn more and help create a plan that works for coastal Louisiana:

- **Contact the MPDT.** The MPDT has staff whose duties include meeting with citizens, listening to questions, and sharing information about the plan at all phases of its development. Email the MPDT at masterplan@la.gov to learn more.
- **Contact FDT members.** Contact FDT members who share your interests and let them know about your point of view. FDT members are charged with reporting such information back to the FDT and bringing information about the FDT's deliberations back to you. A list of FDT members is available on the Master Plan webpage on the State's coastal website (http://coastal.louisiana.gov/).
- **Check the 2012 Master Plan website.** Summaries of the FDT's and SEB's work will be posted on the site, as will informational bulletins, a monthly news bulletin, meeting schedules, and other information about the 2012 Master Plan. Periodic topic-specific blogs by MPDT members will also be posted starting in early 2011.
- **Attend a Regional Stakeholder Workgroup (RSW) meeting.** Three RSWs have been formed for the east, central, and western regions of the coast. RSW membership is open and meetings are held approximately quarterly, with the next round of meetings scheduled for Summer 2011. The meetings are interactive, giving attendees the best information available and recording the ideas people want to share.
- **Reach out locally.** Contact your parish government's coastal zone management staff and let them know about your ideas, questions, and concerns. The MPDT is in regular contact with these officials to ensure that the concerns of coastal citizens are understood.
- **Attend public meetings.** In late 2011 and early 2012, three formal public meetings will be held to introduce successive drafts of the 2012 Master Plan. Dates and venues for public meetings will be announced in advance on the CPRA/OCPR website. During these meetings, a formal record of comments will be created, and interested citizens are encouraged to attend.

APPENDIX A

Ongoing Protection and Restoration Project Summaries

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ONGOING PROTECTION AND RESTORATION PROJECT SUMMARIES

OCPR Program	Name	State Project Number	Project Type	PPL	Federal Sponsor	House District	Senate District	Parish	Acres Benefited	Construction Completion	Total Budget	Project Description	Planning Unit
CWPPRA	Caernarvon Diversion Outfall Management	BS-03A	OM	2	NRCS	105	1	PLAQUEMINES	802	2002	$4,536,000	The primary objective is to enhance marsh by increasing the utilization of freshwater, nutrients, and sediments provided by the Mississippi River through the Caernarvon Freshwater Diversion Structure.	1
CWPPRA	White's Ditch Outfall Management (Deauthorized)	BS-04A	OM	3	NRCS	105	1	PLAQUEMINES	N/A	Deauthorized	$25,341	This project was designed to direct the flow of Mississippi River nutrients and sediment into the deteriorating wetlands in the Breton Sound Basin that are not directly benefited by the Caernarvon Freshwater Diversion project. Because of the failure to secure landrights, the project was officially deauthorized by the CWPPRA Task Force in January of 1998. This project was reauthorized on the 14th PPL as BS-12.	1
CWPPRA	Grand Bay Crevasse (Deauthorized)	BS-07	SD	4	USACE	105	1	PLAQUEMINES	N/A	Deauthorized	$62,437	Project goals included construction of a rock-lined opening through the rocks at the head of the Jurjevich Canal in order to establish a pathway for freshwater and sediment into Grand Bay and the adjacent marshes to create, restore, and enhance wetlands in the area. The project was officially deauthorized by the CWPPRA Task Force in July of 1998 because of landrights issues.	1
CWPPRA	Upper Oak River Freshwater Siphon (Deauthorized) Phase 1	BS-09	FD	8	NRCS	105	1	PLAQUEMINES	N/A	Deauthorized	$26,662	The primary goal of this project was to reverse the trend of interior marsh deterioration in the project area due to saltwater intrusion through installation of a freshwater siphon and outfall channel. These strategies would have provided freshwater, nutrients, and sediment to enhance marsh health. The project was officially deauthorized by the CWPPRA Task Force in January of 2003 because of landrights issues.	1
CWPPRA	Delta Building Diversion North of Fort St. Philip	BS-10	SD	10	USACE	105	1	PLAQUEMINES	543	Pending	$1,444,000	A diversion channel will be constructed along the left descending bank of the Mississippi River up stream from Fort St. Philip. The channel will be constructed mainly through shallow open water and will tie into the Mississippi River.	1
CWPPRA	Delta Management at Fort St. Philip	BS-11	SNT	10	USFWS	105	1	PLAQUEMINES	267	2006	$3,199,867	The objective of the project is to enhance the delta-building process occurring due to the crevasse at Fort St. Philip. Six artificial crevasses will be constructed to divert freshwater and sediment into areas currently restricted by spoil banks or natural ridges and linear vegetated terraces will be constructed to enhance sediment retention and reduce wave energy in one of the receiving bays.	1
CWPPRA	White Ditch Resurrection and Outfall Management	BS-12	OM, FD	14	NRCS	105	1	PLAQUEMINES	189	Pending	$14,845,000	The goal of this project is to promote utilization of freshwater, sediments, and nutrients from Mississippi River by renewing operation of existing siphon and adding another.	1
CWPPRA	Bayou Lamoque Freshwater Diversion (Transferred)	BS-13	FD	15	EPA	105	1	PLAQUEMINES	620	Transferred	$4,183	The goal of this project was to create approximately 620 acres of new marsh, increase the percent cover of aquatic vegetation, increase the area of shallow open water habitat, and decrease mean salinity in the project area.This CWPPRA project was transferred to the CIAP Program.	1
CWPPRA	Bohemia Mississippi River Reintroduction Project	BS-15	FD	17	EPA	105	1	PLAQUEMINES	640	Pending	$6,923,792	The goal of the project is to reintroduce Mississippi River water into adjacent wetlands through an uncontrolled diversion with a capacity of approximately 10,000 cfs, restoring natural deltaic growth and habitats.	1
CWPPRA	Caernarvon Outfall Management/Lake Lery Shoreline Protection Project	BS-16	VP, MC	17	USFWS	105, 103	1	PLAQUEMINES	652	Pending	$25,137,149	The project features include dredging sediment to create 396 acres of marsh and restore approximately 32,000 feet of the southern Lake Lery shoreline.	1
CWPPRA	Bertrandville Siphon	BS-18	FD	18	EPA	105	1	PLAQUEMINES	1613	Pending	$22,460,077	The goal of the project is to create and sustain marsh through a MS River reintroduction (2,000 cfs maximum siphon) into the open water near Bertrandville, LA.	1
CWPPRA	Channel Armor Gap Crevasse	MR-06	SD	3	USACE	105	1	PLAQUEMINES	2097	1997	$888,985	The project will consist of deepening the invert of the existing 150 foot wide gap in the Mississippi River channel bank armor. The existing invert will be lowered to -4.0 feet NGVD. In addition, an existing earthen channel leading from the armored gap to the open water area beyond the bank will be enlarged. Approximately 125,000 cubic yards of material will be excavated from the outfall channel and cast adjacent to the channel in a manner conducive to marsh nourishment.	1
CWPPRA	Pass-a-Loutre Crevasse (Deauthorized)	MR-07	SD	3	USACE	105	1	PLAQUEMINES	1043	Deauthorized	$817	The objective of this project was to create and restore marsh in the Mississippi River Delta. This was to be accomplished through construction of a crevasse on the left descending bank of the Mississippi River between Pass-a-Loutre and Raphael Pass. The project was officially deauthorized by the CWPPRA Task Force in July of 1998 due to high costs attributed to relocating underground utilities in the area.	1
CWPPRA	Delta Wide Crevasses	MR-09	SD	6	NMFS	105	1	PLAQUEMINES	2386	1999	$4,617,852	The objective of this project is to promote the formation of emergent freshwater and intermediate marsh in shallow, open water areas of the Pass-a-Loutre Wildlife Management Area and the Delta National Wildlife Refuge by either cleaning existing splays or creating new ones.	1
CWPPRA	Periodic Introduction of Sediment and Nutrients at Selected Diversion Sites Demonstration (Deauthorized)	MR-11	FD	9	USACE	105	1	SAINT BERNARD		Deauthorized	$80,000	This demonstration project intends to show the effectiveness of using a hydraulic pipeline dredge to provide increased sediment through a diversion structure or siphon. Monitoring of the project will determine not only the characteristics of the sediment input concentrations, but also the subsequent effects in the outfall area.	1
CWPPRA	Mississippi River Sediment Trap (Deauthorized)	MR-12	MC	12	USACE	105	1	PLAQUEMINES	1920	Deauthorized	$1,880,000	This project was reauthorized on the 12th PPL to create emergent wetlands through the beneficial use of material dredged from a sediment trap located between miles 5 and 1 above Head of Passes in the Mississippi River. The proposed sediment trap will consist of an area dredged out of the riverbed that will force sediment deposition. The project was officially deauthorized by the Breaux Act Task Force in October of 2009 due to the high cost to implement the project.	1, 2
CWPPRA	Benneys Bay Diversion	MR-13	SD	10	USACE	105	1	PLAQUEMINES	4580	Pending	$30,200,000	The objective of the project is to create vegetated wetlands in shallow open water areas in Benneys Bay. The project would divert sediment in an effort to create, nourish, and maintain approximately 16,982 acres of fresh to intermediate marsh over the 20-year project life.	1
CWPPRA	Fritchie Marsh Restoration	PO-06	HR	2	NRCS	90	11	SAINT TAMMANY	1040	2001	$2,201,674	The purpose of the project is to achieve remediation of the causes of wetland loss in the area and to improve habitat for wildlife and fisheries. This will be accomplished by increasing the flow of fresh water into the marsh and managing the outfall.	1
CWPPRA	Violet Freshwater Distribution (Deauthorized)	PO-09A	HR	3	NRCS	103, 104	1,2	SAINT BERNARD	247	Deauthorized	$2,422	The objective of the outfall management plan was to optimize the use of freshwater and sediment supplied by the existing siphons by managing water flow through the area. This would be accomplished by reducing channelized flow and routing the diverted flow across marshes or through shallow water areas instead of through larger channels. This project was officially deauthorized by the CWPPRA Task Force in October of 2001 because of landrights issues.	1
CWPPRA	Bayou Sauvage National Wildlife Refuge Hydrologic Restoration, Phase 1	PO-16	HR	1	USFWS	100	2	ORLEANS	3800	1996	$1,680,193	The Lake Pontchartrain Hurricane Protection levee isolates units 3 and 4 of the Bayou Sauvage Wildlife Refuge from the surrounding marsh complex and establishes a large freshwater impoundment. The project will establish a means for removing the excess water during the spring and summer.	1
CWPPRA	Bayou LaBranche Wetland Creation	PO-17	MC	1	USACE	56	6	SAINT CHARLES	487	1994	$3,817,929	The project involved dredging sediments from Lake Pontchartrain to create vegetated wetlands in an area roughly bounded by I-10, Lake Pontchartrain, Bayou Labranche.	1
CWPPRA	Bayou Sauvage National Wildlife Refuge Hydrologic Restoration, Phase 2	PO-18	HR	2	USFWS	100	2	ORLEANS	1280	1997	$1,692,552	The construction of U.S. Highway 90, canals, railroad lines, and Lake Ponctchartrain hurricane protection levees has impounded the marsh in the project area. Project features consist of two 36-inch pumps, which operate to maintain water levels at 0.5 feet above or below marsh elevation to promote vegetative growth in the project area.	1
CWPPRA	Mississippi River Gulf Outlet (MRGO) Disposal Area Marsh Protection	PO-19	MM	3	USACE	103	1	SAINT BERNARD	755	1999	$313,145	The objective of this project is to preserve vegetated wetlands by repairing the lateral and rear dikes of the Mississippi River Gulf Outlet (MRGO) disposal areas. Repairs to a 28,000 linear-foot dike, in conjunction with the installation of metal box weirs with a single 40-inch pipe, was used to control and divert water flow to prevent the perched marshes from draining.	1
CWPPRA	Red Mud Demonstration (Deauthorized)	PO-20	MC	3	EPA	56	19	SAINT JOHN THE BAPTIST		Deauthorized	$470,500	This project was authorized to determine whether red mud, produced as a by-product of removing alumina from bauxite, could be utilized as marsh-creation material in combination with compost and marsh sediment. Construction of experimental units was initiated in 1997; however, due to unexpected problems with fill material, liners, and contaminants in the water source, the project was officially deauthorized by the CWPPRA Task Force in August 2001.	1
CWPPRA	Eden Isles East Marsh Restoration (Deauthorized)	PO-21	HR	4	NMFS	76	1	CAMERON	1453	Deauthorized	$374	The project intended to restore 2,536 acres of drained fastlands by actively managing water levels to maximize marsh creation. There was a change in landowners of the project area during the planning phase of this project. Consequently, the project was officially deauthorized by the CWPPRA Task Force in January 1998.	1

ONGOING PROTECTION AND RESTORATION PROJECT SUMMARIES

OCPR Program	Name	State Project Number	Project Type	PPL	Federal Sponsor	House District	Senate District	Parish	Acres Benefited	Construction Completion	Total Budget	Project Description	Planning Unit
CWPPRA	Bayou Chevee Shoreline Protection	PO-22	SP	5	USACE	103	2	ORLEANS	212	2001	$2,589,403	The project consists of constructing a 5,000-foot earthen, erodible dike to contain dredged material from Lake Pontchartrain. The project will create about 150 acres of marsh.	1
CWPPRA	Hopedale Hydrologic Restoration	PO-24	HR	8	NMFS	103	1	SAINT BERNARD	106	2005	$2,281,287	This project is designed to abate site-specific wetland loss by replacing collapsed culverts installed in the 1950s near Yscloskey, Louisiana. Replacement of these structures would allow more rapid drainage of the area, improve fisheries access, reduce wetland loss rates, and protect approximately 3,086 acres of marsh.	1
CWPPRA	Bayou Bienvenue Pump Station Diversion and Terracing (Deauthorized)	PO-25	MC	8	NMFS	101, 103	1,2	TERREBONNE	442	Deauthorized	$185,098	This project intended to combine the use of existing pump stations with the construction of a diversion channel, water control structures, and earthen terraces planted with smooth cordgrass (Spartina alterniflora). This would force the flow of freshwater and nutrients through a deteriorated marsh area to abate site-specific marsh loss. The project was officially deauthorized by the CWPPRA Task Force in April 2002 because construction was determined to be too costly.	1
CWPPRA	Opportunistic Use of the Bonnet Carre Spillway (Deauthorized)	PO-26	FD	9	USACE	56	19	PLAQUEMINES	177	Deauthorized	$523,306	This project intended to abate high salinity stress on the vegetated wetlands surrounding Lake Pontchartrain. This objective was to be accomplished through the removal of pins from the Bonnet Carre´ Spillway structure during high flow periods in the Mississippi River to allow no more than 4,000 cubic feet per second of water to flow from the river into Lake Pontchartrain. This project was officially deauthorized by the CWPPRA Task Force in October of 2007 due to uncertainty of benefits and lack of landowner support.	1
CWPPRA	Chandeleur Islands Marsh Restoration	PO-27	VP	9	NMFS	103	1	SAINT BERNARD	88	2001	$1,139,566	The objective of this project was to accelerate the recovery period of barrier island areas overwashed by Hurricane Georges in 1998 through vegetation plantings. The overwash areas, which encompass 364 acres, are located at 22 sites along the Chandeleur Sound side of the island chain and were planted with smooth cordgrass (Spartina alterniflora).	1
CWPPRA	LaBranche Wetlands Terracing, Planting, and Shoreline Protection (Deauthorized)	PO-28	VP	9	NMFS	56	19	SAINT CHARLES	489	Deauthorized	$194,451	Located along Lake Pontchartrain, the project intended to reduce emergent marsh loss along the shoreline by restoring and creating 489 acres through marsh terracing, shoreline protection, and vegetation planting. This project was officially deauthorized by the CWPPRA Task Force in October of 2007.	1
CWPPRA	River Reintroduction into Maurepas Swamp	PO-29	FD	11	EPA	56, 88, 57	18, 19	SAINT JOHN THE BAPTIST, SAINT JAMES	36121	Pending	$164,000,000	This project intends to restore a natural hydrologic regime and increase nutrient inputs in cypress-tupelo swamp tracts south of Lake Maurepas through the diversion of Mississippi River water into an area of degraded swamp.	1
CWPPRA	Lake Borgne Shoreline Protection	PO-30	SP	10	EPA	103, 104	1	SAINT BERNARD	229	2008	$25,543,123	The goal of this project is to maintain the integrity of the narrow strip of marsh that separates Lake Borgne from the Mississippi River Gulf Outlet (MRGO). This land helps protect the communities of Shell Beach, Yscloskey, and Hopedale from direct exposure to lake wave energy and storm surges. The goal will be accomplished through construction of a continuous nearshore rock breakwater.	1
CWPPRA	Lake Borgne and MRGO Shoreline Protection (Deauthorized)	PO-32	SP	12	USACE	103	1	SAINT BERNARD	93	Deauthorized	$101,913	The objective of this project is to preserve the marsh between Lake Borgne and the Mississippi River Gulf Outlet (MRGO) by preventing shoreline erosion. A rock dike will be constructed along the lake Borgne shoreline and along the northern bank of the MRGO. The Lake Borgne segment of this project was constructed by the USACE with funds from the 3th supplemental.	1
CWPPRA	Goose Point/Point Platte Marsh Creation	PO-33	MC	13	USFWS	89	11	SAINT TAMMANY	436	2009	$20,867,777	The goal of this project is to create about 437 acres of marsh and nourish about 114 acres of degraded marsh along the northern shoreline of Lake Pontchartrain.	1
CWPPRA	Alligator Bend Marsh Restoration and Shoreline Protection	PO-34	TE, VP, SP	16	NRCS	103	1	ORLEANS	121	Pending	$29,716,052	The goal of this project is to provide shoreline protection in Lake Borgne, starting at Alligator Point, using rock dikes and vegetative plantings.	1
CWPPRA	LaBranche East Marsh Creation	PO-75	MC	19	NRCS	56	19	SAINT CHARLES	715	Pending	$32,323,291	Project features consist of the creation of 729 acres of marsh and the nourishment of 202 acres of existing marsh using dedicated dredging from Lake Pontchartrain.	1
CWPPRA	Bayou Bonfouca Marsh Creation	PO-104	MC	20	USFWS	89, 90	11	SAINT TAMMANY	424	Pending	$23,875,866	The primary goal of the project is to create 533 acres and nourish 42 acres of low salinity brackish marsh in open water areas adjacent to Bayou Bonfouca with sediment pumped from Lake Pontchartrain.	1
CDBG	Madisonville Bulkhead	PO-87	SP		HUD	77	6	SAINT TAMMANY		Pending	$1,080,000	This project will provide construction of improvements to the existing bulkhead along the shore of Lake Pontchartrain and the Tchefuncte River at the Madisonville Marina.	1
CDBG	South Slidell Flood Control	PO-89	DM, MC		HUD	90	11	SAINT TAMMANY		Pending	$1,500,000	This project involves levee improvements to two areas in the South Slidell area to help control storm surge that may occur during tropical events. The first location involves raising the levee between HWY 11 and the Oak Harbor levee. While the second location involves raising the levee between the Oak Harbor ring levee and Interstate 10.	1
ENERGY BILL CIAP	Bayou Lamoque Floodgate Removal	BS-13 (EB)	FD		BOEMRE	105	1	PLAQUEMINES	660	Pending	$1,500,000	This project will remove floodgates to allow unimpeded flow of freshwater through the water control structures.	1
ENERGY BILL CIAP	Violet Diversion	PO-35 (EB)	FD		USACE	104, 103	2, 1	SAINT BERNARD	13200	Pending	$1,170,982	This project will divert freshwater from the Mississippi River into Lake Borgne to freshen Mississippi Sound, Central Wetlands, and Biloxi Marsh areas. The Feasibility Study for this project is being done as part of the MRGO Ecosystem Restoration FS.	1
ENERGY BILL CIAP	Orleans Land Bridge SP & Marsh Creation	PO-36 (EB)	SP		BOEMRE	104, 103	2, 1	ORLEANS	140	Pending	$41,948,202	This project will provide shoreline protection on the northwest rim of Lake Borgne.	1
ENERGY BILL CIAP	Central Wetlands Demonstration	PO-73	HR		BOEMRE	101, 103, 104	1, 2	SAINT BERNARD	10-20	Pending	$3,500,000	Water Assimilation project with New Orleans Sewerage and Water Board.	1
ENERGY BILL CIAP	Central Wetlands - Riverbend	PO-73-1	HR		BOEMRE	103	4	SAINT BERNARD	346	Pending	$2,000,000	Wetland Assimilation Project in St. Bernard Parish.	1
ENERGY BILL CIAP	Central Wetlands - EBSTP to A2	PO-73-2	HR		BOEMRE	103	4	SAINT BERNARD, ORLEANS	473	Pending	$4,500,000	Wastewater from New Orleans Sewerage and Water Board's East Bank Sewerage Treatment Plant will be pumped to adjacent wetlands in St. Bernard Parish.	1
FEDERAL	Lake Pontchartrain Hurricane Mitigation Project	HPL-MIT	SP		USACE	56	19	SAINT JOHN THE BAPTIST	600	1996	$2,222,892	This project consisted of a near-shore, segmented breakwater system in Lake Pontchartrain parallel to a five-mile reach of the Manchac Wildlife Management Area. The project specifically mitigated for damages resulting from construction of the Lake Pontchartrain Hurricane Protection project.	1
FEDERAL	MRGO Ecosystem Restoration	PO-65	VP, FD, MM, SP, MC		USACE	104, 103	2, 1	SAINT BERNARD, ORLEANS	53700	Pending	$2,900,000,000	This project is intended to restore some of the ecosystem damaged by construction of MRGO.	1
FEMA	LaBranche Wetlands	DSR-81768	SP		FEMA	56	19	SAINT CHARLES		2000	$43,315	A 700-foot section of a Christmas tree brush fence was repaired. This project was damaged by Hurricane Georges, Hurricane Earl, and Tropical Storm Francis in 1998.	1
FEMA	Hopedale Hydrological Structure	PW-8743	HR		FEMA	103	1	SAINT BERNARD		2007	$64,900	This FEMA project consists of repairs to the water control structure of the Hopedale Hydrologic Restoration (PO-24) project that was damaged by Hurricane Katrina in 2005. Repairs were made to damaged fencing, railings, and displaced riprap, and a lost portable hydraulic actuator is being replaced.	1
HURRICANE PROTECTION	Permanent Closure of Canals and Pumps	PO-60	HP		USACE	97, 96, 95, 94, 93, 82, 81, 99	3, 2	ORLEANS, JEFFERSON		Pending	$807,000,000	In June 2006, Congress passed Public Law 109-234 giving the Corps authorization and appropriations of approximately $800 million to design and construct a permanent protection system for the outfall canals – specifically to, "…modify the 17th Street, Orleans Avenue, and London Avenue drainage canals and install pumps and closure structures at or near the lakefront..."	1
HURRICANE PROTECTION	West Shore Lake Pontchartrain	PO-62	HP		USACE	59, 58, 57, 56, 88	19, 18	SAINT JOHN THE BAPTIST, SAINT CHARLES, SAINT JAMES, ASCENSION		Pending	$6,982,089	Feasibility Study to assess hurricane and storm reduction measures in a study area bounded by the Bonnet Carre Spillway to the east, The Mississippi River to the south, Lakes Pontchartrain and Maurepas to the north, and the St. James Parish/Ascension Parish line to the west.	1
LOUISIANA COASTAL AREA	LCA Modification of Caernarvon Diversion	BS-19	FD		USACE	105, 103	1	SAINT BERNARD, PLAQUEMINES		Pending	$21,000,000	This modification project is authorized to study and design the modification of the diversion structure and/or outfall of the diversion to increase wetland restoration outputs south of Caernarvon, west of the Mississippi River.	1

ONGOING PROTECTION AND RESTORATION PROJECT SUMMARIES

OCPR Program	Name	State Project Number	Project Type	PPL	Federal Sponsor	House District	Senate District	Parish	Acres Benefited	Construction Completion	Total Budget	Project Description	Planning Unit
LOUISIANA COASTAL AREA	LCA Medium Diversion at White's Ditch	BS-20	FD		USACE	105	1	PLAQUEMINES		Pending	$126,686,400	A medium diversion from the Mississippi River into the central River aux Chenes area using a controlled structure to provide additional freshwater, nutrients, and fine sediment to the area between the Mississippi River and River aux Chenes ridges.	1
LOUISIANA COASTAL AREA	LCA Mississippi River Delta Management Study	MR-16	OTHER		USACE	105	1	PLAQUEMINES		Pending	$26,000,000	OCPR will coordinate the development of a strategic framework for feasibility evaluation of improved management of fresh water, nutrients, and sediment resources of the Lower Mississippi River, from the Old River Control Structure to Head of Passes, to better sustain its Deltaic Plain.	1, 2
LOUISIANA COASTAL AREA	LCA Small Diversion at Convent / Blind River	PO-68	FD		USACE	58, 57	18	SAINT JAMES, ASCENSION	21369	Pending	$124,230,000	A small diversion of up to 5,000 cfs from the Mississippi River into the Blind River through a new control structure to introduce freshwater, sediments, and nutrients into the southeast portion of the Maurepas swamp.	1
LOUISIANA COASTAL AREA	LCA Amite River Diversion Canal Modification	PO-69	VP, HR		USACE	88	18	LIVINGSTON, ASCENSION	3111	Pending	$10,760,000	The goal of this project is to reestablish hydrologic connectivity between Maurepas Swamps and natural waterbodies.	1
SECTION 204/1135	MRGO, Breton Island Restoration, Mile -2.3 to 4.0		DM		USACE	105	1	PLAQUEMINES	26	1999	$1,050,000	This Section 204 project utilized material from maintenance dredging activities along the Mississippi River Gulf Outlet (MRGO) to repair Breton Island.	1
SECTION 204/1135	MRGO, Breton Island Berm, Mile -2 to -3		DM		USACE	105	1	PLAQUEMINES		1999	$150,000	This Section 204 project utilized material from maintenance dredging activities along the Mississippi River Gulf Outlet (MRGO) to nourish the littoral system that feeds Breton Island.	1
SECTION 204/1135	Mississippi River Gulf Outlet Berm, Mile 14 to 11		DM		USACE	103	1	SAINT BERNARD		1999	$350,000	This Section 204 project provided for the unconfined placement of 3,468,901 cubic yards of material into shallow water adjacent to the south jetty at about mile 15.3. The material was dredged from miles 14.0 to 11.0 of the Mississippi River Gulf Outlet (MRGO) navigation channel and placed to an elevation conducive to marsh vegetation establishment.	1
SECTION 204/1135	Mississippi River Gulf Outlet, Mile 14 to 12 (2002)		DM		USACE	103	1	SAINT BERNARD		2002	$290,000	The project involved pumping approximately 1.6 million cubic yards to create some 50 acres of marsh behind the MRGO jetty. This project was fast tracked due to the impact of Hurricane Lili and Tropical Storm Isidore in 2002.	1
SECTION 204/1135	Mississippi River Gulf Outlet, Mile 14 to 12 (2003)		DM		USACE	103	1	SAINT BERNARD	113	2003	$580,000	This project involved pumping 4.3 million cubic yards of sediments to create 113 acres of marsh. The material was dredged from miles 14.0 to 12.0 of the Mississippi River Gulf Outlet (MRGO) navigation channel and placed at an elevation conducive to marsh vegetation establishment.	1
STATE	New Orleans to Venice	BA-67	HP		USACE	105	1	PLAQUEMINES		Pending	$2,400,000,000	The NOV project consists of 24 areas of work covered by projects NOV 1-2, NOV 5-16, NOV-NF-W- 4 to 6, NF-02, and Taskforce Guardian (TFG) Continuing Projects P13- 15, P17, and P24 that includes the section of the Plaquemines Parish Hurricane Protection System.	1,2
STATE	Lake Lery Hydrologic Restoration	BS-06	FD			103	1	SAINT BERNARD	100	1997	$1,000,000	This project involved the construction of a pumping station located along the south-central edge of the St. Bernard Parish Ridge. This will discharge collected rainfall into the marsh north of Lake Lery and help prevent saltwater intrusion. The project was built in partnership with the Lake Borgne Basin Levee District and was completed in May of 1997.	1
STATE	Pass a Loutre Site - Dedicated Dredging Program	LA-01C	DM			105	1	PLAQUEMINES		2005	$450,000	The project created approximately 26 acres of sustainable freshwater marsh in the vicinity of Pass a Loutre, Louisiana. This project is part of the coastwide state Dedicated Dredging Program. The goal of this program is to use a small, mobile hydraulic dredge along inland waterways in Louisiana's coastal zone to deposit dredged material, and thereby nourish and/or rebuild threatened coastal marshes adjacent to the waterways.	1
STATE	Small Sediment Diversions	MR-01B	SD			105	1	PLAQUEMINES	6719	1993	$1,010,500	This project involved the excavation of 13 crevasses through the levees of Mississippi River distributary channels within the Balize Delta in order to create self-sustaining emergent marsh.	1
STATE	Fontainebleau State Park Mitigation	PO-4355NP4	SP			89	11	SAINT TAMMANY	6	1999	$476,104	This project repaired a section of breached shoreline by depositing approximately 9,000 cubic yards of sand for a feeder berm on the easternmost end of Fontainebleau State Park.	1
STATE	Violet Siphon Diversion	PO-01	FD			104, 103	1	SAINT BERNARD	84	1992	$380,584	The purpose of this project is to return into operation the existing siphon, and to enlarge the size of the diversion so that more sediment and freshwater are available to offset marsh subsidence and saltwater intrusion.	1
STATE	Bayou Chevee	PO-02c	SP			103	2	ORLEANS	75	1994	$62,000	This project installed 2,000 feet of brush fences at the mouth of Bayou Chevee.	1
STATE	LaBranche Shoreline Stabilization and Canal Closure	PO-03	SP			56	19	SAINT CHARLES	1750	1987	$1,324,000	The purpose of this project is to restore the integrity of the shoreline, which separates Lake Pontchartrain from the western edge of the LaBranche wetlands.	1
STATE	LaBranche Shoreline Protection	PO-03B	SP			56	19	SAINT CHARLES	50	1996	$1,290,851	A rock breakwater was constructed along the Lake Pontchartrain shoreline, east of Bayou LaBranche, to protect the hydrologic boundary between the lake and the wetlands from being breached.	1
STATE	Central Wetlands Pump Outfall	PO-08	FD			104, 103	1, 2	SAINT BERNARD	300	1992	$250,000	This project is designed to provide freshwater, nutrients, and sediment associated with storm water runoff to an area of marsh near the Violet Siphon (PO-01).	1
STATE	Turtle Cove Shore Protection	PO-10	SP			56	19	SAINT JOHN THE BAPTIST	184	1994	$366,000	A 1,640 foot rock-filled gabion breakwater was constructed to maintain and protect the Lake Pontchartrain shoreline that shelters “The Prairie” (an 800-acre expanse of shallow, open water marsh bordered by organic freshwater marsh) from high wave energies and to encourage sediment deposition behind the gabion structure. An additional $195,600 was used for maintenance in 2001.	1
STATE	MRGO and Lake Borgne (Bayou Dupre Segment)	PO-93	SP		USACE	103	1	SAINT BERNARD		Pending	$0	This project will construct approximately 17,650 linear feet of stone foreshore dike along the southwest shoreline of Lake Borgne in the vicinity of Bayou Dupre. OCPR is acquiring portions of the two oyster leases that are impacted by this project.	1
STATE	MRGO and Lake Borgne (Bayou Bienvenue Segment)	PO-94	SP		USACE	103	1	SAINT BERNARD		Pending	$0	This project will construct approximately 14,440 linear feet of stone foreshore dike along the southwest shoreline of Lake Borgne in the vicinity of Bayou Bienvenue. OCPR is acquiring portions of the three oyster leases that are impacted by this project.	1
STATE	MRGO and Lake Borgne (Shell Beach Segment)	PO-95	SP		USACE	103	1	SAINT BERNARD		Pending	$0	This project will construct approximately 15,700 linear feet of stone foreshore dike along the southern shoreline of Lake Borgne, west of Shell Beach. OCPR is acquiring portions of the four oyster leases that are impacted by this project.	1
SURPLUS 07	MRGO Closure Structure	PO-38SF	OTHER		USACE	103	1	SAINT BERNARD		2009	$14,116,500	This is a 100% Federal Project. Design review of the closure structure as the State will be responsible for O&M. The state acquired Real Estate interests for structure.	1
SURPLUS 07	St. Bernard Parish 40 Arpent Levee Repairs	PO-61	HP			104, 103	1	SAINT BERNARD		Pending	$5,000,000	This project is in the Lake Borgne Levee District and calls for raising low reaches of the Forty Arpent Levee.	1
SURPLUS 07	Biloxi Marsh	PO-72	SP			103	1	SAINT BERNARD	300	Pending	$22,000,000	This Project will construct 5 - 7 miles of shoreline protection along the southeastern shoreline of Lake Borgne.	1
SURPLUS 08	Beneficial Use of I-10 Twin Span Debris (Deauthorized)		OTHER			103	2	ORLEANS	2.3	Deauthorized	$1,500,000	Use of Twin Span Debris as a form of shoreline protection for the Bayou Sauvage area.	1
SURPLUS 08	Lake Pontchartrain & Vicinity, Lake Borgne Surge Barrier LPV-IHNC-02	PO-55	FD		USACE	97, 79, 94, 56, 92, 104, 81, 103, 101, 100	3, 2, 1, 10, 6, 19, 4, 9	SAINT BERNARD, ORLEANS		Pending	$1,204,000,000	This project will construct a Hurricane Surge Barrier across the tip of Lake Borgne connecting the MRGO levees south of Bayou Bienvenue with the GIWW levees East of Michoud Canal with floodgates at Bayou Bienvenue and GIWW.	1

ONGOING PROTECTION AND RESTORATION PROJECT SUMMARIES

OCPR Program	Name	State Project Number	Project Type	PPL	Federal Sponsor	House District	Senate District	Parish	Acres Benefited	Construction Completion	Total Budget	Project Description	Planning Unit
SURPLUS 08	Lake Pontchartrain and Vicinity (HPO)	PO-56	FD		USACE	97, 79, 94, 56, 92, 104, 81, 103, 101, 100	3, 2, 1, 10, 6, 19, 4, 9			Pending	$2,935,344,422	To build and/or restore the hurricane protection system (levees, floodwalls, and structures) in Orleans and St. Bernard Parishes for the purpose of reducing the risk of flooding the area agaist a 1% storm event.	1
SURPLUS 08	Lake Pontchartrain and Vicinity	PO-63	OTHER		USACE	79, 78, 81, 56, 92, 82, 80	10, 6, 19, 9	SAINT CHARLES, JEFFERSON		2010	$852,293,215	Lake Pontchartrain and Vicinity (LPV) is the hurricane protection program that involves approximately 30 hurricane protection projects in East Jefferson and St. Charles Parishes.	1
SURPLUS 08	Lake Pontchartrain & Vicinity, Seabrook Lock LPV-IHNC-01	PO-64	FD		USACE	97, 79, 94, 56, 92, 104, 81, 103, 101, 100	3, 2, 1, 10, 6, 19, 4, 9	ORLEANS		Pending	$157,156,414	This project will construct a gate closure structure across the Industrial Canal approximately 500 ft South of the Ted Hickey Bridge at Lake Pontchartrain to work in conjunction with the IHNC Borgne Surge Barrier.	1
SURPLUS 09	North Shore Hurricane/Flood Protection and Restoration Plan	PO-74	OTHER			73, 76, 77, 89, 90, 103	1, 6, 11, 12	SAINT TAMMANY, TANGIPAHOA		Pending	$960,000	This project will develop a hurricane protection plan for the North Shore.	1
WRDA	Caernarvon Freshwater Diversion	BS-08	FD		USACE	105, 103	1	PLAQUEMINES		1991	$24,818,800	This project diverts freshwater and its accompanying nutrients and sediment from the Mississippi River to coastal bays and marshes in Breton Sound for fish and wildlife enhancement. This project can divert up to 8,000 cubic feet per second.	1
CWPPRA	GIWW (Gulf Intracoastal Waterway) to Clovelly Hydrologic Restoration	BA-02	HR	1	NRCS	54	20	LAFOURCHE	175	2000	$9,565,153	The project will restore the area to the hydrologic conditions that prevailed historically. The project includes canal plugs, rock weirs, fixed crest weirs with boat bays, one variable crest weir, and the rebuilding of low overflow banks that have eroded away.	2
CWPPRA	Naomi Outfall Management	BA-03C	OM	5	NRCS	105	8	JEFFERSON	634	2002	$2,181,427	The project will manage the outfall of the existing eight siphons by controlling the movement of the diverted waters. The siphons divert sediment-laden water from the Mississippi River into the west bank wetlands to retard saltwater intrusion and enhance wetland productivity.	2
CWPPRA	West Pointe a la Hache Outfall Management	BA-04C	HR	3	NRCS	105	1	PLAQUEMINES	646	Pending	$5,370,516	The project goal is to optimize use of fresh water and sediment supplied by existing siphon by reducing channelized flow and routing the diverted flow to nourish marshes.	2
CWPPRA	Lake Salvador Shore Protection Demonstration	BA-15	SP	3	NMFS	105	19	SAINT CHARLES		1998	$5,856,506	The objective of this project is to maintain the shoreline along a section of Lake Salvador and help re-establish the natural hydrology of interior marsh. Phase I of the project was constructed to demonstrate the effectiveness of four separate types of segmented breakwaters in a poor soil environment. Phase II of the project included the installation of 8,000 feet of continuous rock structure along the western section of the lake.	2
CWPPRA	Fourchon Hydrologic Restoration (Deauthorized)	BA-18	HR	1		54	20	LAFOURCHE		Deauthorized	$14	The goal of this project was to restore tidal exchange to 2,400 acres of impounded wetlands. The project was officially deauthorized by the CWPPRA Task Force in July of 1994 at the request of the landowner.	2
CWPPRA	Barataria Bay Waterway Wetland Restoration	BA-19	MC	1	USACE	105	8	JEFFERSON	510	1996	$1,170,000	The project beneficially used dredge material to enlarge Queen Bess Island.	2
CWPPRA	Jonathan Davis Wetland Protection	BA-20	HR, SP	2	NRCS	105	8	JEFFERSON	510	2003, Pending	$28,886,616	The goal of this project is to restore the natural hydrologic conditions of the area and reduce shoreline erosion. The goal was partly accomplished through constructing a series of water control structures. Construction unit 4 consists of 4,180 lf of rock rip rap revetment, 15,110 lf of concrete sheetpile wall, plugs and marsh creation.	2
CWPPRA	Bayou Perot/Bayou Rigolettes Marsh Restoration (Deauthorized)	BA-21	MC	3	NMFS	105	8	JEFFERSON	1065	Deauthorized	$3,096	This project was authorized to protect deteriorated intermediate-to-brackish marsh located between Lake Salvador and Little Lake by using dredged material to re-establish the shoreline. Due to an unstable and rapidly eroding site, the project was deemed unfeasible and was officially deauthorized by the CWPPRA Task Force in January of 1998.	2
CWPPRA	Bayou L'Ours Ridge Hydrologic Restoration (Deauthorized)	BA-22	HR	4	NRCS	54	20	LAFOURCHE	737	Deauthorized	$371,232	This project was proposed to restore natural hydrologic flow to the marsh by reinforcing breached areas of the Bayou L'Ours Ridge through a series of canal closures and two water control structures. The project was officially deauthorized by the CWPPRA Task Force in April 2003 because of landrights issues.	2
CWPPRA	Barataria Bay Waterway West Side Shoreline Protection	BA-23	SP	4	NRCS	105	8	JEFFERSON	1789	2000	$3,013,365	The project objective is to rebuild the west bank of the Dupree Cut to protect the adjacent marsh from unnatural water exchange and subsequent erosion. A rock dike was constructed along 9,400 linear feet of the west bank of the Barataria Bay Waterway.	2
CWPPRA	Myrtle Grove Siphon (Deauthorized)	BA-24	FD	5	NMFS	105	1,8	PLAQUEMINES		Deauthorized	$80,436	The goal of the project is to reduce saltwater intrusion and to nourish existing marsh. This will be accomplished by diverting water through a siphon from the Mississippi River to adjacent wetlands. This project was officially deauthorized by the CWPPRA Task Force in October 2007 because a larger diversion was authorized at the same location (see BA-33).	2
CWPPRA	Bayou Lafourche Siphon (Deauthorized)	BA-25a	FD	5	EPA	51, 54, 55, 58, 60	18, 19, 20, 21	LAFOURCHE	428	Deauthorized	$45,922	The goal of the project is to reduce marsh loss adjacent to Bayou Lafourche by introducing nutrient and sediment laden river water through large siphon pipes. This project was reauthorized on the 11th PPL as BA-25b.	2
CWPPRA	Barataria Bay Waterway East Side Shoreline Protection	BA-26	SP	6	NRCS	105	8	JEFFERSON	217	2001	$5,224,477	The objective of this project is to rebuild the banks of the BBWW to protect the adjacent marsh from excessive tidal action and saltwater intrusion. The project consists of 17,600 (3.3 miles) of levee constructed with dredged material from the BBWW; and 17,600 (3.3 miles) of rock armor.	2
CWPPRA	Barataria Basin Landbridge Shoreline Protection, Phases 1 and 2	BA-27B	SP	7	NRCS	54, 105	20, 8	JEFFERSON	1304	2009	$31,288,623	The objective of the project is to select a cost-effective erosion control technique to stop the erosion on the southwestern shoreline of Bayou Perot and the southeastern shoreline of Bayou Rigolettes. The length of protection is estimated to be approximately 71,000 feet.	2
CWPPRA	Barataria Basin Landbridge Shoreline Protection, Phase 3	BA-27-CU1	SP	9	NRCS	105, 54	20, 8	JEFFERSON, LAFOURCHE	5587	1999, 2008, Pending	$37,100,000	The project tested sections of different shoreline protection types, such as, concrete panel wall, rock and light rock. These projects have constructed over 41,000 feet of shoreline protection.	2
CWPPRA	Barataria Basin Landbridge Shoreline Protection Phase 4	BA-27D-CU6	SP	11	NRCS	105, 54	20, 8	JEFFERSON	589	2006	$13,177,461	This project will consist of 31,500 feet of foreshore rock dike with a lightweight aggregate core or concrete sheetpile and will incorporate "fish dips" and openings at historic natural channels to eliminate shoreline erosion and deterioration of the Barataria landbridge.	2
CWPPRA	Vegetative Plantings of a Dredged Material Disposal Site on Grand Terre Island	BA-28	VP	7	NMFS	105	8	JEFFERSON	127	2001	$526,314	This project involved the installation of vegetative plantings on previously constructed marsh and dune platform.	2
CWPPRA	LA Highway 1 Marsh Creation (Deauthorized)	BA-29	MC	9	EPA	54	20	LAFOURCHE	146	Deauthorized	$293,610	The objective of this project was to create marsh habitat in a large open water area adjacent to Louisiana Highway 1 using dredged material from two proposed borrow areas. This project was officially deauthorized by the CWPPRA Task Force in February of 2005 because it was determined to be infeasible.	2
CWPPRA	East/West Grand Terre Islands Restoration (Transferred)	BA-30	MC	9	NMFS	105	1	JEFFERSON	403	Transferred	$2,387,837	The goal of this project is to stabilize and benefit 1,575 acres of barrier island habitat and extend the island's life expectancy. Dredged material will be used to create dune and marsh habitat on East Grand Terre Island. This project will be constructed using CIAP 2007 funds.	2
ENERGY BILL CIAP	East Grand Terre	BA-30 (EB)	BI	9	BOEMRE	105	8	PLAQUEMINES	683	2010	$33,312,023	The project goal is to restore 2.8 miles and 620 acres of barrier shoreline and 450 acres of marsh by dredging 3.3 million cubic yards of offshore material and rebuilding the island. Project was designed under the CWPPRA Program and constructed under the CIAP program.	2
CWPPRA	Delta Building Diversion at Myrtle Grove (Transferred)	BA-33	SD	10	USACE	105	1,8	JEFFERSON, PLAQUEMINES	8891	Transferred	$327,422	The objective of this project is to divert Mississippi River water and sediment for the creation of new emergent wetlands. The project will involve: installation of gated box culverts on the west bank of the Mississippi River in the vicinity of Myrtle Grove; dedicated dredging from the Mississippi River to create marsh in the vicinity of Bayou Dupont, the Barataria Bay Waterway, and the Wilkinson Canal; or a combination of these actions. This project has been transferred to the LCA Program.	2

ONGOING PROTECTION AND RESTORATION PROJECT SUMMARIES

OCPR Program	Name	State Project Number	Project Type	PPL	Federal Sponsor	House District	Senate District	Parish	Acres Benefited	Construction Completion	Total Budget	Project Description	Planning Unit
CWPPRA	Mississippi River Reintroduction Into Northwest Barataria Basin	BA-34	FD	10	EPA	58, 55	19, 18	SAINT JOHN THE BAPTIST, SAINT JAMES, LAFOURCHE	5134	Pending	$17,098,769	The goal of this project is to restore the natural hydrologic regime and add nutrients to adjacent swamp areas. The project will utilize a freshwater diversion/siphon from the Mississippi River to northwest Barataria Basin wetlands with gapping of spoil banks and placement of culverts under LA Highway 20.	2
CWPPRA	Pass Chaland to Grand Bayou Pass	BA-35	BI	11	NMFS	105	1	PLAQUEMINES	359	2009	$46,414,530	This project involved the creation of a dune and marsh platform on the north side of the Gulf of Mexico adjacent to Bay Joe Wise. Sand fencing and vegetation were installed.	2
CWPPRA	Dedicated Dredging on the Barataria Basin Landbridge	BA-36	MC	11	USFWS	105	8	JEFFERSON	2800	2010	$36,281,893	Approximately 5,368,000 cubic yards of material was placed in two contained marsh creation areas to construct approximately 1,211 acres of intertidal marsh at a final elevation of +2.5' NAVD 88. Approximately 3,901,000 cubic yards of material was placed in adjoining fill areas to nourish approximately 1,578 acres of marsh.	2
CWPPRA	Little Lake Shoreline Protection/Dedicated Dredging Near Round Lake	BA-37	MM, SP	11	NMFS	54	20	LAFOURCHE	713	2007	$44,931,412	This project is designed to protect area wetlands, which currently experience high rates of shoreline erosion. This project will protect approximately 21,000 feet of Little Lake shoreline, create 488 acres of intertidal wetlands, and nourish an additional 532 acres of fragmented, subsiding marsh.	2
CWPPRA	Pelican Island and Pass La Mer to Chaland Pass Restoration	BA-38	BI, VP	11	NMFS	105	1	PLAQUEMINES	1117	Pending	$77,109,220	The objectives of this project are to create barrier island habitat, enhance storm-related surge and wave protection, prevent overtopping during storms, and increase the volume of sand within the active barrier system. Conceptual project plans envision dedicated dredging of local, nearshore sand sources to directly create beach, dune, and wetland habitats. This project was first authorized on the 9th PPL as Barrier Island Restoration Grande Terre to SW Pass (BA-32). Construction of the Pass La Mer to Chaland Pass Restoration segment was completed in 2007.	2
CWPPRA	Mississippi River Sediment Delivery System - Bayou Dupont	BA-39	MC	12	EPA	105	1, 8	JEFFERSON, PLAQUEMINES	577	2010	$31,631,908	The goal of this project is to create/restore 493 acres of brackish marsh by delivering via pipeline, dredged material from the Mississippi River to an adjacent area within the Barataria Basin, and planting marsh vegetation.	2
CWPPRA	Riverine Sand Mining/Scofield Island Restoration	BA-40	BI	14	NMFS	105	1	PLAQUEMINES	234	Pending	$44,544,638	The goal of this project is to transport sediments from the Mississippi River to restore dune and marsh habitat on Scofield Island.	2
CWPPRA	South Shore of the Pen Shoreline Protection and Marsh Creation	BA-41	SP, MC	14	NRCS	105	8	JEFFERSON	211	Pending	$22,763,443	Approximately 1,000 feet of concrete pile and panel wall and 10,900 feet of rock revetment would be constructed along the south shore of The Pen and Bayou Dupont. Dedicated dredging would be used to create approximately 74 acres of marsh, and nourish an additional 107 acres of marsh, within the triangular area bounded by the south shore of The Pen, the Barataria Bay Waterway (Dupre Cut) and the Creole Gas Pipeline Canal.	2
CWPPRA	Lake Hermitage Marsh Creation	BA-42	TE, SP, MC	14	USFWS	105	1	PLAQUEMINES	438	Pending	$38,040,158	The goals of this project are to create approximately 438 acres of wetlands, reduce tidal exchange in marshes surrounding Lake Hermitage using material dredged from the Mississippi River.	2
CWPPRA	West Pointe a la Hache Marsh Creation	BA-47	MC	17	NRCS	105	1	PLAQUEMINES	203	Pending	$16,136,639	The goal of this project is to create/nourish marsh using sediment hydraulically dredged from the Mississippi River and pumped via pipeline to the project area.	2
CWPPRA	Bayou Dupont Marsh and Ridge Creation Project	BA-48	MC	17	NMFS	105	1	JEFFERSON	317	Pending	$21,626,768	This marsh and ridge creation project will nourish approximately 118 acres of marsh and create 15 acres of maritime ridge by long distance pumping of Mississippi River sediment.	2
CWPPRA	Grand Liard Marsh and Ridge Restoration	BA-68	BI	18	NMFS	105	1	PLAQUEMINES	502	Pending	$31,390,699	This project will create 328 about acres of marsh, nourish about 140 acres of marsh and build about 20,000 lf of ridge.	2
CWPPRA	Cheniere Ronquille Barrier Island Restoration	BA-76	BI, MC	19	NMFS	105	1	PLAQUEMINES	408	Pending	$43,828,286	The objective of this project is to prevent breaching of the barrier shoreline by restoring the dune and marsh platform.	2
CWPPRA	Non-rock Alternatives to Shoreline Protection Demo	LA-16	SP	18	NRCS	49, 105, 54	20, 22, 8	IBERIA, JEFFERSON, LAFOURCHE		Pending	$1,906,237	Project goals are to demonstrate different alternatives to rock shoreline protection methods by testing several different products along highly erosive shorelines in areas that are not conducive to construction with rock.	2, 3B
CWPPRA	West Bay Sediment Diversion	MR-03	SD	1	USACE	105	1	PLAQUEMINES	9831	2003	$33,311,311	The project consists of a conveyance channel for large-scaled uncontrolled diversion of freshwater and sediments from the Mississippi River. The diversion channel would be constructed in two phases: (1) Initial construction of an interim channel to accommodate a discharge of 20,000 cubic feet per second (cfs) at the 50% duration stages in the River and marsh development areas, and (2) Modification of the interim diversion channel design to accommodate full-scale diversion of 50,000 cfs at the 50% duration stage on the River after a period of intensive monitoring of diversion operations.	2
CWPPRA	Beneficial Use of Hopper Dredged Material Demonstration (Deauthorized)	MR-08	DM	4	USACE	105	1	PLAQUEMINES		Deauthorized	$13,705	The goal of this project was to utilize dredged material from a hopper dredge to create emergent vegetated marsh in an area that is currently a shallow open-water pond. Due to design problems, the project was officially deauthorized by the CWPPRA Task Force in November of 2000.	2
CWPPRA	Dustpan Maintenance Dredging Operations for Marsh Creation in the Mississippi River Delta Demonstration	MR-10	DM	6	USACE	105	1	PLAQUEMINES		2002	$1,900,000	This project demonstrated the beneficial use of dredged material from routine maintenance of the Mississippi River Navigation Channel by using a dustpan hydraulic dredge to create and restore adjacent marsh. Approximately 40 acres of deteriorated marsh that had converted to shallow open water were restored with approximately 222,000 cubic yards of dredged material.	2
CWPPRA	Spanish Pass Diversion	MR-14	SD	13	USACE	105	1	PLAQUEMINES	433	Pending	$13,900,000	The goal of this project is to create emergent marsh by diverting Mississippi River water and sediment from Grand Pass into open water receiving areas.	2
CWPPRA	Venice Ponds Marsh Creation and Crevasses	MR-15	MC	16	EPA	105	1	PLAQUEMINES	511	Pending	$8,998,008	The goals of the project are to create, maintain, nourish, and replenish existing deteriorating wetlands through dedicated dredging, hydrologic restoration, crevasse construction, and crevasse enhancement.	2
CDBG	Lafitte Area Levee Repair	BA-82	HP		HUD	105	8	JEFFERSON		Pending	$500,000	This project will repair damages to the existing levees in the Fisher Basin Area. This damage was caused by heavy equipment and vehicles used on the levee for flood fighting activities during Ike and Gustav. This project will provide for a 4 inch lift on approximately a 5 mile stretch of levee.	2
CDBG	Rosethorne Wetland Assimilation Project	BA-83	HR		HUD	105	8	JEFFERSON	334	Pending	$1,000,000	The Rosethorne treatment facility currently discharges treated municipal effluent into Bayou Barataria. This project will utilize secondarily treated municipal effluent diverted from the Rosethorne treatment facility, to restore and sustain coastal wetland habitats.	2
CDBG	Bayou Lafourche Fresh Water District - Walter S. Lemann Memorial Pump Station Renovations	BA-84	FD		HUD	58	18	ASCENSION		Pending	$2,700,000	This project will replace two of the existing pumps and motors at the Walter S. Lemann Pump Station. This project will also install an emergency generator to operate the pump station during power outages.	2, 3A
CIAP	FIFi Island Restoration	CIAPFIFI	SP		BOEMRE	105	8	JEFFERSON	126	2003	$751,406	Approximately 100 acres of existing island (Grand Isle & Fifi Island) will be protected by the installation of approximately 10,000 linear feet of rock shore protection. An additional $999,500 was contributed from the CIAP of 2001 for the construction and design of this project.	2
ENERGY BILL CIAP	Lake Salvador Shoreline Protection (Phase III)	BA-15X-2 (EB)	SP		BOEMRE	105	19	SAINT CHARLES	844	2009	$2,300,000	This project will construct approximately 7,000 linear feet of shoreline protection near the northwest shore of Lake Salvador.	2
ENERGY BILL CIAP	Long Distance MS River Sediment Pipeline	BA-43 (EB)	OTHER, MC		BOEMRE	105, 54	20, 1, 8	LAFOURCHE, JEFFERSON, PLAQUEMINES		Pending	$66,192,104	The goal of this project is to use material dredged from the Mississippi River and transported via new permanent pipeline across the Barataria Basin to create marsh and/or a ridge.	2
ENERGY BILL CIAP	LA 1 Improvements - Fourchon to Leeville Bridge (CIAP)	BA-55	OTHER		BOEMRE	54	20	LAFOURCHE		Pending	$35,115,290	This project is located 60 miles south of New Orleans in lower Lafourche Parish between Leeville and Port Fourchon. It will construct a 5 mile long, two lane elevated highway (two, 12 ft lanes and two, 8 ft shoulders). The Phase IA project connects to the Phase IB and Phase IC projects (in Leeville) by relocating LA 1 on a new alignment.	2
ENERGY BILL CIAP	Fringe Marsh Repair	BA-58	MC		BOEMRE	105	1	PLAQUEMINES	300	Pending	$8,756,605	This program will reestablish critical areas of fragile marsh and minimize the continued fragmentation of wetlands system throughout the coast. Through the beneficial use of dredge material and projects to reestablish shorelines, fringe marsh areas will be protected.	2
HURRICANE PROTECTION	Grand Isle and Vicinity	BA-73	SP		USACE	105	8	JEFFERSON		Pending	$25,000,000	The Grand Isle and Vicinity Hurricane Protection Project consists of a 7.5 mile vegetated sand dune extending the length of Grand Isle's gulf shore, a jetty to stabilize the western end of the island at Caminada Pass, and an offshore breakwater system.	2

ONGOING PROTECTION AND RESTORATION PROJECT SUMMARIES

OCPR Program	Name	State Project Number	Project Type	PPL	Federal Sponsor	House District	Senate District	Parish	Acres Benefited	Construction Completion	Total Budget	Project Description	Planning Unit
LOUISIANA COASTAL AREA	LCA Medium Diversion with Dedicated Dredging at Myrtle Grove	BA-71	FD		USACE	105	8, 1	PLAQUEMINES		Pending	$278,300,000	Authorized by WRDA 2007 as a sediment diversion between 2,500 and 15,000 cfs. Ongoing modeling effort to examine potential for modification of the WRDA authority for a larger sediment diversion to promote infilling of shallow open water areas through deposition and marsh expansion. *Fully funded Phase 2 cost taken from WRDA 2007 legislation.	2
LOUISIANA COASTAL AREA	LCA Modification of Davis Pond Diversion	BA-72	FD		USACE	56, 83, 105, 54, 87, 84	3, 20, 1, 7, 19, 8	SAINT CHARLES, JEFFERSON, PLAQUEMINES, LAFOURCHE		Pending	$68,277,885	This modification project is authorized to study and design the modification of the structure and or outfall of the diversion to increase wetland restoration outputs within the Barataria Basin.	2
LOUISIANA COASTAL AREA	LCA Barataria Basin Barrier Shoreline - 2007	LA-10	MC, BI		USACE	105, 54	20, 1, 8	JEFFERSON, PLAQUEMINES, LAFOURCHE	2749	Pending	$363,900,000	The purpose of this project is to provide beach/dune restoration and marsh creation on Caminada Headlands and Shell Island.	2
SECTION 204/1135	Barataria Bay Waterway, Grand Terre Island (Phase I)		DM		USACE	105	8	JEFFERSON	115	1996	$1,370,000	This Section 204 project provides for the beneficial placement of 500,000 cubic yards of dredged material from the Barataria Bay Waterway (BBWW) to create wetlands on Grand Terre Island.	2
SECTION 204/1135	Barataria Bay Waterway, Mile 31 to 24.5		DM		USACE	105	8	JEFFERSON	125	1999	$140,000	This Section 204 project utilized dredged material taken from a zone between miles 31 and 24.5 of the Barataria Bay Waterway (BBWW) to create marsh habitat.	2
SECTION 204/1135	Barataria Waterway Grand Terre Island Ph 2		DM		USACE	105	8	JEFFERSON		2002	$100,000	This Section 204 project provided for the beneficial placement of 500,000 cubic yards of material dredged from the Barataria Bay Waterway (BBWW) to create wetlands on the bay side of Grand Terre Island.	2
STATE	Bayou LaFourche Salt Water Control Structure	BA-091	OTHER			58	20	LAFOURCHE		Pending	$4,437,715	This project will allow salinity levels in Bayou Lafourche to be more effectively managed through operation of the saltwater control structure.	2
STATE	Naomi Siphon Diversion	BA-03	FD			105	1, 8	PLAQUEMINES, JEFFERSON	8200	1992	$9,602,381	This project involves the construction of eight parallel siphons to divert water from the Mississippi River into the adjacent wetlands near Naomi, Louisiana. The maximum discharge of the siphons is 2,100 cfs.	2
STATE	West Pointe a la Hache Siphon Diversion	BA-04	FD			105	1	PLAQUEMINES	9200	1992	$9,845,693	This project involves the construction of eight parallel siphons to divert water from the Mississippi River into the adjacent wetlands on the west side of the river near Pointe a la Hache, Louisiana. The maximum discharge of the siphons is 2,100 cfs.	2
STATE	Queen Bess	BA-05B	SP, DM			105	8	JEFFERSON	145	1993	$1,475,176	The purpose of this project is to restore Queen Bess Island as a brown pelican (Pelecanus occidentalis) rookery. Dredged material was added to the island to increase its size in 1991, and a rock dike was installed around the perimeter of the original island in 1992 to armor the shoreline. The area has become vegetated and the number of pelican nests on the island increased after project construction.	2
STATE	Baie de Chactas	BA-05C	SP			105	19	SAINT CHARLES		1990	$175,000	Approximately 300,000 pounds of crushed oyster shell were placed on 7,400 feet of shoreline to restore the physical integrity of the marsh shoreline separating Lake Salvador and Baie de Chactas and Baie du Cabanage.	2
STATE	Lake Salvador Shoreline Protection Extension	BA-15-X1	SP			105	19	SAINT CHARLES	2035	2005	$4,840,344	The purpose of this project is to build a rock dike that will protect the marsh shoreline along the northeastern portion of Lake Salvador. The shoreline protection project was built on the land to avoid dredging in an area with cultural resources. This project was designed as an extension of the BA-15 Phase II CWPPRA project.	2
STATE	Bayou Segnette	BA-16	SP			84	8	JEFFERSON	88	1994, 1998	$1,373,151	This project involved the construction of a 6,800-foot limestone rock berm to reinforce the bank between Lake Salvador and Bayou Segnette and the installation of a timber piling fence across an abandoned access canal that connects the two water bodies. The fence is designed to reduce wave energies and erosive forces from the lake while still allowing exhange of sediment and aquatic organisms. Additional CWPPRA funds were appropriated for the design of this state-funded project. Maintenance of this project was necessary in the 1998-1999 fiscal year at a cost of $300,000.	2
STATE	Fisheries Habitat Restoration on West Grand Terre Island at Fort Livingston	FTL-01	SP			105	8	JEFFERSON		2003	$2,076,816	This project consists of a rock dike built to protect the Gulf shoreline of West Grand Terre Island and Fort Livingston. This project was expedited because erosion rates along West Grand Terre rapidly accelerated due to the impacts of tropical storms in 2002. Fort Livingston, which is listed on the National Register of Historic Places, was constructed in the 19th century by the U.S. Army Corps of Engineers as part of the nation's coastal defense system.	2
STATE	Grand Isle Bay Side Breakwaters	GIBSB	SP			105, 54	8	JEFFERSON	50	1995	$500,000	The purpose of this project was to reduce erosion on the bay side of Grand Isle. Fifteen 300-foot breakwaters were constructed on the back-bay side of Grand Isle.	2
STATE	Dedicated Dredging Program - Lake Salvador	LA-01a	MC, DM			105	19	SAINT CHARLES	28	1999	$342,276	Two sites were filled utilizing dredged material adjacent to Baie du Cabanage on the Salvador Wildlife Management Area. This project is part of the coastwide state Dedicated Dredging Program. The goal of this program is to use a small, mobile hydraulic dredge along inland waterways in Louisiana's coastal zone to deposit dredged material, and thereby nourish and/or rebuild threatened coastal marshes adjacent to the waterways.	2
STATE	Dedicated Dredging Program - Bayou Dupont	LA-01b	DM, MC			105	8	JEFFERSON	66	2000	$1,080,017	Three sites were filled utilizing dredged material adjacent to Bayou Dupont and The Pen. This project is part of the coastwide state Dedicated Dredging Program. The goal of this program is to use a small, mobile hydraulic dredge along inland waterways in Louisiana's coastal zone to deposit dredged material, and thereby nourish and/or rebuild threatened coastal marshes adjacent to the waterways.	2
STATE	North Grand Isle Breakwaters	NGI	SP			54	8	JEFFERSON	50	1995	$160,000	This project was authorized to construct segmented rock breakwaters on the bay side of Grand Isle to protect camps located between Caminada Bay and the west side of Louisiana Hwy 1. The Louisiana Department of Natural Resources (LDNR) contributed no construction funds and was involved in construction inspection only. The local Levee District supplied construction funds.	2
SURPLUS 07	Grand Isle East End Breakwater/ Jetty Design	BA-092	SP			54	8	JEFFERSON		Pending	$1,000,000	This project includes construction of breakwaters/jetties work for Grand Isle State Park.	2
SURPLUS 07	Bayou Lafourche Freshwater Introduction	BA-25	FD			55, 51, 52, 105, 53, 54	20, 19, 8	LAFOURCHE		Pending	$20,000,000	The Mississippi River diversion into Bayou Lafourche will restore coastal marshes and provide drinking water to over 300,000 residents. The current project will dredge the fist 6.2 miles of the bayou.	2
SURPLUS 07	Plaquemines Parish - Southeast Louisiana Strategic Restoration	BA-46 SF	MC			105	8	PLAQUEMINES		Pending	$4,500,000	Plaqumines parish dredging design project with OCPR Funding.	2
SURPLUS 07	Jean Lafitte Tidal Protection	BA-75-1	HP			105	8	JEFFERSON	425	Pending	$7,000,000	This project will provide flood protection improvements by raising 15,840 linear feet of existing earthen levee. The project will also include approximately 7600 liner feet of concrete capped, steel sheet pile floodwall and flood gates to 8.0 NAVD.	2
SURPLUS 07	Rosethorne Tidal Protection	BA-75-2	HP			105	8	JEFFERSON	610	Pending	$1,500,000	This project will provide flood protection improvements consisting of new earthen levees, approximately 8,010 linear feet of reinforced concrete floodwall and flood gates to 8.0 NAVD.	2
SURPLUS 07	Lafitte Tidal Protection	BA-75-3	HP			105	8	JEFFERSON	375	Pending	$1,500,000	This project will provide flood protection improvements consisting of new earthen levees, sheet pile flood walls, concrete flood walls and flood gates to 8.0 NAVD.	2
SURPLUS 08	Caminada Headlands	BA-45	BI		BOEMRE	54	20	LAFOURCHE	730	Pending	$70,000,000	The proposed project will restore and protect beach and dune habitat across the Caminada Headland through the direct placement of sediment (sandy material for the beach and dune habitat) from offshore borrow areas.	2

ONGOING PROTECTION AND RESTORATION PROJECT SUMMARIES

OCPR Program	Name	State Project Number	Project Type	PPL	Federal Sponsor	House District	Senate District	Parish	Acres Benefited	Construction Completion	Total Budget	Project Description	Planning Unit
SURPLUS 08	West Bank and Vicinity	BA-66	HP		USACE	56, 83, 105, 102, 86, 87, 84, 85	3, 7, 19, 8	SAINT CHARLES, ORLEANS, JEFFERSON, PLAQUEMINES		Pending	$3,150,000,000	The project is currently desgined to provide 100 Year protection levels to the project area through the construction of levees to the 2011 protection levels and T-Walls and other structures to the 2057 protection levels.	2
SURPLUS 08	Larose to Golden Meadow - Flood Protection	TE-65	HP			54	20	LAFOURCHE		Pending	$19,820,000	This project includes levee modifications and improvements. The project was allocated $15 million in '08 Surplus and $4.82 million in '09 Surplus.	2, 3A
SURPLUS 09	Lafitte Hurricane Protection	BA-75-4	HP			105	8	JEFFERSON		Pending	$7,730,000	This will provide continued funding of current hurricane flood control projects in the Lafitte area.	2
SURPLUS 09	Donaldsonville to the Gulf of Mexico Hurricane Protection	PO-58	HP		USACE	58, 56, 55, 83, 105, 54, 102, 86, 60, 87, 84, 85	21, 20, 1, 7, 19, 5, 18, 8	ASSUMPTION, JEFFERSON, LAFOURCHE, SAINT JOHN THE BAPTIST, SAINT CHARLES, SAINT JAMES		Pending	$10,269,987	The study activities will be conducted to determine the feasibility of providing flood protection to the populated areas between Bayou Lafourche and the Mississippi River, from Donaldsonville to the Gulf of Mexico.	2
WRDA	Davis Pond Freshwater Diversion	BA-01	FD		USACE	56, 83, 105, 54, 87, 84	3, 20, 1, 7, 19, 8	SAINT CHARLES	33000	2002	$120,000,000	The purpose of this project is to maintain and enhance the existing ecological framework of the Barataria Basin by providing freshwater, nutrients, and sediment. This will counter saltwater intrusion and help offset marsh subsidence. This project can divert up to 10,650 cfs.	2
CWPPRA	Floating Marsh Creation Demonstration	LA-05	OTHER	12	NRCS	51	21	TERREBONNE		2006	$1,080,891	The purpose of this demonstration project was to develop and test unique and previously untested technologies for creating floating marsh made of buoyant vegetated mats or artificial islands.	3A
CWPPRA	Sediment Containment System for Marsh Creation Demonstration	LA-09	MC	17	NRCS	51, 105	21, 20, 8	TERREBONNE, JEFFERSON		Pending	$1,163,343	This demonstration project utilizes an uncoventional sediment containment system for marsh creation.	3A
CWPPRA	Grand Bayou Hydrologic Restoration (Deauthorized)	TE-10	HR	5	USFWS	35	20	LAFOURCHE	199	Deauthorized	$1,452,357	The objective of the project was to maintain emergent wetlands in this area by providing supplemental freshwater, nutrients, and sediment from the Atchafalaya River via the Gulf Intracoastal Waterway (GIWW). Project features included a water control structure on Bayou Pointe au Chien just south of its junction with St. Louis Canal, the relief structure on Grand Bayou, and the pipeline structure on Grand Bayou Canal. The project has been deauthorized.	3A
CWPPRA	Falgout Canal Planting Demonstration	TE-17	VP	1	NRCS	51	20	TERREBONNE		1996	$83,660	For this demonstration project, smooth cordgrass (Spartina alterniflora) suited to the salinity and habitat type of the Falgout Canal area was planted along the canal and protected by six types of wave-stilling devices.	3A
CWPPRA	Timbalier Island Planting Demonstration	TE-18	VP	1	NRCS	53	20	TERREBONNE		1996	$59,633	For this demonstration project, approximately 7,390 linear feet of sand fences were installed and vegetation suited to the salinity and habitat type of Timbalier Island was planted in several areas on the island to trap sand and buffer wind and wave energy.	3A
CWPPRA	Lower Bayou LaCache Hydrologic Restoration (Deauthorized)	TE-19	MM	1	NMFS	53	20	TERREBONNE		Deauthorized	$46,840	The project would have reduced marsh loss rates and improved fish and wildlife habitat quality by restoring natural north-south water exchange with estuarine water bodies and by reducing flow through the numerous dredged canals in the area. Because of problems with landrights and navigation, the project was officially deauthorized by the CWPPRA Task Force in February of 1996.	3A
CWPPRA	Isles Dernieres Restoration East Island	TE-20	BI	1	EPA	53	20	TERREBONNE	449	1999	$8,762,416	The project objective is to restore the coastal dunes and wetlands of the Eastern Isles Dernieres barrier island chain. Approximately 3.9 million cubic yards of sand were dredged from Lake Pelto and used to build a retaining dune which was then hydraulically filled to create an elevated marsh platform. Sand fences and vegetation were also installed to stabilize the sand and minimize wind-driven transport.	3A
CWPPRA	West Belle Pass Headland Restoration	TE-23	SP	2	USACE	54	20	LAFOURCHE	474	1998	$6,751,441	The project will reduce the encroachment of Timbalier Bay into the marshes on the west side of Bayou Lafourche with the use of dedicated dredged materials to create 184 acres of marsh on the west side of Belle Pass. A water control structure will be placed in the Evans Canal, and plugs on other canals.	3A
CWPPRA	Isles Dernieres Restoration Trinity Island	TE-24	BI, MC	2	EPA	53	20	TERREBONNE	776	1999	$10,774,974	The project objectives are to restore the Trinity Island (dunes and marsh) wetlands of the Isles Dernieres chain, enhance the physical integrity of the island, and protect the lower Terrebonne estuary.	3A
CWPPRA	East Timbalier Island Sediment Restoration	TE-25	BI	3	NMFS	54	20	TERREBONNE	1913	2001	$6,921,279	The objective of this project is to strengthen and thus increase the life expectancy of East Timbalier Island. The project called for the mining of 2.7 million cubic yards of sediment and placement of the material in three embayments along the landward shoreline of East Timbalier Island. The project also included aerial seeding of the dune platform, installation of sand fencing, and dune vegetation plantings.	3A
CWPPRA	Whiskey Island Restoration	TE-27	BI, MC	3	EPA	53	20	TERREBONNE	657	2000	$7,106,586	The project created and restored beaches and back island marshes on Whiskey Island. The project created 523 acres of back island marsh and filling in the breach at Coupe Nouvelle (134 acres). The initial vegetation planting with smooth cordgrass (Spartina alterniflora) on the bay shore was completed in July 1998 and additional vegetation seeding/planting was carried out in Spring 2000.	3A
CWPPRA	Raccoon Island Breakwaters Demonstration	TE-29	BI	5	NRCS	53	20	TERREBONNE		1997	$1,795,388	The project will protect the newly refurbished beaches and wetlands of Raccoon Island and protect back barrier and mainland marshes with six segmented breakwaters.	3A
CWPPRA	East Timbalier Island Sediment Restoration	TE-30	BI	4	NMFS	54	20	TERREBONNE	215	2000	$13,032,666	The project goal is to strengthen and increase the life expectancy of East Timbalier Island by placing dredged material along its landward shoreline. Additional rock has been placed on the existing breakwater in front of the island, which will help protect the created area from erosion.	3A
CWPPRA	Flotant Marsh Fencing Demonstration (Deauthorized)	TE-31	SP	4	NRCS	51	21	TERREBONNE		Deauthorized	$206	The purpose of this demonstration project was to determine the effectiveness of different fencing techniques used to conserve and restore floating marshes. There was difficulty in locating an appropriate site for demonstration and in addressing engineering constraints. The restoration techniques that were originally suggested for this project were not feasible. The project was officially deauthorized by the CWPPRA Task Force in October of 2001.	3A
CWPPRA	North Lake Boudreaux Basin Freshwater Introduction and Hydrologic Management	TE-32A	FD	6	USFWS	51, 52, 53	20	TERREBONNE	603	Pending	$25,766,765	The project aims to introduce freshwater from the HNC through an enlarged Bayou Pelton channel across Bayou Grand Caillou and through a gated channel.	3A
CWPPRA	Bayou Boeuf Pump Station (Deauthorized)	TE-33	HR	6	EPA	50, 51, 55, 60	21	TERREBONNE		Deauthorized	$3,452	The purpose of this project was to link the wetlands protection/restoration objectives of the CWPPRA with flood protection and navigation needs generally covered by WRDA. The project components consisted of implementing a long-term water management strategy for the Verret Basin, and evaluating a long-term river water delivery strategy from Atchafalaya River to Terrebonne wetlands. The project was officially deauthorized by the CWPPRA Task Force in July of 1998.	3A
CWPPRA	New Cut Dune and Marsh Restoration	TE-37	BI, MC	9	EPA	53	20	TERREBONNE	386	2008	$13,110,435	The objective of this project was to close the breach between East and Trinity Islands that was originally created by Hurricane Carmen (1974) and subsequently enlarged by Hurricane Juan (1985) and Hurricane Andrew (1992). The project will create barrier island dunes and marsh habitat and lengthen the structural integrity of the eastern Isles Dernieres by restoring the littoral drift and adding sediment into the near-shore system.	3A
CWPPRA	South Lake Decade Freshwater Introduction	TE-39	SP	9	NRCS	51	20	TERREBONNE	202	Pending	$5,223,806	This project will include the construction of a water control structure in the southern bank of Lake DeCade. This will increase the amount of Atchafalaya River water and sediment introduced into the marshes south of the lake. In addition, shoreline protection will be implemented adjacent to the proposed structure, and a weir in Lapeyrouse Bayou will be removed.	3A
CWPPRA	Timbalier Island Dune and Marsh Restoration	TE-40	BI, MC	9	EPA	53	20	TERREBONNE	663	2004	$16,527,789	Timbalier Island is migrating rapidly to the west/northwest; therefore, the western end of Timbalier Island is undergoing lateral migration by spit-building processes at the expense of erosion along the eastern end. The objective of this project is to restore the eastern end of Timbalier Island by the direct creation of beach, dunes, and marsh.	3A

ONGOING PROTECTION AND RESTORATION PROJECT SUMMARIES

OCPR Program	Name	State Project Number	Project Type	PPL	Federal Sponsor	House District	Senate District	Parish	Acres Benefited	Construction Completion	Total Budget	Project Description	Planning Unit
CWPPRA	Mandalay Bank Protection Demonstration	TE-41	SP	9	USFWS	51, 52	21, 20	TERREBONNE		2003	$1,868,659	This demonstration project is intended to develop new techniques for protecting and restoring organic soils, which can be easily eroded. Intact banks and breakthroughs were treated to determine the cost-effectiveness of demonstrated approaches. The project will evaluate several low-cost solutions for restoring habitat in blowout areas and preventing bank erosion.	3A, 3B
CWPPRA	GIWW Bank Restoration of Critical Areas in Terrebonne	TE-43	SP	10	NRCS	51	21	TERREBONNE	345	Pending	$13,022,245	The project objective is to restore critical lengths of deteriorated channel banks and stabilize/armor selected critical lengths of deteriorated channel banks with hard shoreline stabilization materials. A portion of this project will be constructed using CIAP 2007 funds and the remainder of the project has received Phase 2 funding through CWPPRA.	3A
CWPPRA	North Lake Mechant Landbridge Restoration	TE-44	SP, MC	10	USFWS	51	20	TERREBONNE	604	2009	$39,004,428	The project will help to maintain and restore the landbridge (Lake Mechant north shoreline and the Small Bayou La Pointe Ridge) which provides a hydrologic barrier between brackish and low-salinity habitats. Project features include marsh creation, the planting of smooth cordgrass (Spartina alterniflora) on the shoreline, the construction of various plugs, and repairing a fixed-crest weir along Bayou Raccourci.	3A
CWPPRA	Terrebonne Bay Shore Protection Demonstration	TE-45	SP	10	USFWS	53	20	TERREBONNE	0	2007	$2,718,768	This project is intended to evaluate several different shoreline protection methods, including concrete mats, artificial oyster reefs and A-Jacks.	3A
CWPPRA	West Lake Boudreaux Shoreline Protection and Marsh Creation	TE-46	SP	11	USFWS	51	20	TERREBONNE	145	2008	$17,893,813	The purpose of this project is to create and nourish about 200 acres of marsh along the western shoreline of Lake Boudreaux to protect the shoreline from erosion due to direct exposure to lake wave energy and to restore interior marsh lost to subsidence and saltwater intrusion.	3A
CWPPRA	Ship Shoal: Whiskey West Flank Restoration	TE-47	BI	11	EPA	53	20	TERREBONNE	500	Pending	$1,599,810	The objective of this project is to rebuild dunes and a marsh platform on the west flank of Whiskey Island through the deposition of dredged material transported from Ship Shoal. This project will provide a barrier to reduce wave and tidal energy, thereby protecting mainland shoreline from continued erosion.	3A
CWPPRA	Raccoon Island Shoreline Protection and Marsh Creation	TE-48	BI, MC	11	NRCS	51	20	TERREBONNE	16	2008, Pending	$17,050,747	The purpose of the project is to protect the existing southern shoreline of the island by constructing 8 more rock breakwaters. Phase B will utilize dredged sediment from the Gulf of Mexico to create marsh on the land side of the island.	3A
CWPPRA	Avoca Island Diversion and Land Building	TE-49	FD, MC	12	USACE	51	21	SAINT MARY	280	Pending	$19,157,200	Project features include a small diversion from Bayou Shaffer into Avoca Lake paired with marsh creation through dedicated dredging.	3A
CWPPRA	Whiskey Island Back Barrier Marsh Creation	TE-50	BI	13	EPA	51, 53	20	TERREBONNE	270	2010	$30,414,083	The goal of this project was to recreate a back barrier marsh platform on which the barrier island can migrate in order to increase the longevity of the previously restored and natural portions of the island. Heavy construction was complete in the fall of 2009. Project features included construction of 316 acres of back barrier marsh, 5,800 linear feet of tidal creeks, three 1-acre tidal ponds, and 13,000 linear feet of sand dune on the gulf side beach shore.	3A
CWPPRA	Madison Bay Marsh Creation and Terracing	TE-51	MC, TE	16	NMFS	53	20	TERREBONNE	1019	Pending	$32,353,377	The goals of this project are to create and nourish marsh and associated edge habitat and to promote conditions conducive to the growth of submerged aquatic vegetation. The proposed terraces will reduce the wave erosion of existing marshes along the fringes of Madison Bay. The project would benefit approximately 1,019 acres of fresh marsh and open water over the 20-year project life.	3A
CWPPRA	West Belle Pass Barrier Headland Restoration	TE-52	BI	16	NMFS	54	20	LAFOURCHE	389	Pending	$39,422,093	This project will reestablish the West Belle headland by rebuilding a large portion of the beach, dune, and back barrier marsh that once existed. Approximately 9,300 feet of beach and dune will be rebuilt.	3A
CWPPRA	Enhancement of Barrier Island Vegetation Demo	TE-53	VP	16	EPA	51, 53	20	TERREBONNE		2010	$919,264	The goal of this project is to test several technologies or products to enhance the establishment and growth of key barrier island and salt marsh vegetation. The project will focus specifically on enhancing the establishment and growth of transplants of both dune vegetation [bitter panicum (Panicum amarum) and sea oats (Uniola paniculata)] and marsh vegetation [smooth cordgrass (Spartina alterniflora) and black mangrove (Avicennia germinans)].	3A
CWPPRA	Central Terrebonne Freshwater Enhancement	TE-66	MC, HR	18	NRCS	51	20	TERREBONNE	456	Pending	$16,640,120	The project will reestablish historic hydrologic and salinity conditions by reducing the artificial intrusion of Gulf marine waters via the Grand Pass into the Central Terrebonne marshes while enhancing the influence of the Atchafalaya River waters into the area.	3A
CWPPRA	Lost Lake Marsh Creation and Hydrologic Restoration	TE-72	HR, MC	19	USFWS	51	20	TERREBONNE	749	Pending	$22,943,866	Project goals include 1) restore an important feature of structural framework between Lake Pagie and Bayou Decade to prevent the coalescence of those two water bodies, 2) increase the delivery of fresh water, sediments, and nutrients into marshes north and west of Lost Lake, 3) reduce fetch in open water areas via construction of a terrace field.	3A, 3B
CWPPRA	Terrebonne Bay Marsh Creation - Nourishment	TE-83	MC	20	USFWS	53	20	TERREBONNE	353	Pending	$27,414,401	Project goals are to create 365 acres of intertidal marsh in shallow open water and nourish 299 acres of fragmented marsh within the project area reducing water exchange between Terrebonne Bay and interior lakes during tidal and small storm events and to reduce erosion along 16,000 ft of the northern Terrebonne Bay shoreline.	3A
CIAP	Bush Canal and Bayou Terrebonne Bank Stabilization	DNR 2513-0311	SP		BOEMRE	53	20	TERREBONNE	4300	2007	$3,700,000	This project reconstructed the south bank of Bush Canal using material dredged from the canal. The restored bank-line was then covered with goetextile fabric and armored with stone rip-rap. The rebuilt bank-line will help to diminish storm surge as well as reduce saltwater intrusion. This project was funded by the CIAP of 2001.	3A
FEDERAL	Lost Lake Vegetation Project	TE-082	VP		USFWS	51	20	TERREBONNE		Pending	$161,000	This coastal vegetative planting project is for erosion control and habitat restoration in the Lost Lake area of southwestern Terrebonne Parish.	3A
FEMA	Montegut Wetlands		MM		FEMA	53	20	TERREBONNE		2005	$1,093,962	This FEMA project repaired damage to the Montegut Wetland (TE-01) project that occurred during Hurricane Lili in 2002. The project consisted of refurbishing and reconstructing 17,000 linear feet of an existing earthen levee using off-site borrow material.	3A
FEMA	Houma Navigation Canal Levee Maintenance	DSR-81557	SP		FEMA	53	20	TERREBONNE	4000	1995	$218,165	This FEMA project involved the repair of segments of the western bank of the Houma Navigation Canal damaged by Hurricane Andrew in 1992.	3A
FEMA	Wine Island	DSR-81558	DM		FEMA	53	20	TERREBONNE	25	1995	$253,579	This FEMA project was a cooperative venture with the USACE in the beneficial use of dredged material from a scheduled Houma Navigational Canal maintenance dredging project. The island was repaired to pre-Hurricane Andrew condition and planted with vegetation to stabilize the sediment.	3A
FEMA	Timbalier Island Repairs	DSR-81559	BI		FEMA	53	20	TERREBONNE	70	1996	$551,653	This FEMA project closed a major breach created by Hurricane Andrew and provided a 300-foot-wide elevated marsh platform to stabilize the island. Vegetation was also planted to stabilize the sand.	3A
FEMA	East Island Repair Protection	DSR-81560	DM		FEMA	53	20	TERREBONNE	25	1996	$633,179	This FEMA project constructed an elevated marsh platform in an area of a Terrebonne Parish project destroyed by Hurricane Andrew in 1992. Vegetation was also planted to stabilize the sand.	3A
FEMA	Timbalier Island	DSR-81784	BI		FEMA	53	20	TERREBONNE		2000	$181,394	This FEMA project repaired sand fencing on Timbalier Island that was destroyed during a series of tropical storms and hurricanes in the fall of 1998.	3A
FEMA	Falgout Canal	DSR-81785	SP		FEMA	53	20	TERREBONNE		2000	$10,761	This FEMA project replaced flap gates on water control structures damaged during tropical storms and hurricanes in the fall of 1998. The installation of the new flapgate culverts was completed by Terrebonne Parish Consolidated Government.	3A
FEMA	East Island	DSR-81786	VP		FEMA	53	20	TERREBONNE		2000	$168,113	This FEMA project involved the planting of marsh vegetation on the dune and Lake Pelto shoreline of East Island. This area is part of a CWPPRA project damaged by a series of tropical storms and hurricanes in the fall of 1998. A total of 4,280 smooth cordgrass (Spartina alterniflora), 500 black mangrove (Avicennia germinans), and 6,147 roseau cane (Phragmites australis) plants were planted in April 2000.	3A
FEMA	Isle Dernieres (Whiskey Island)	DSR-81787	VP		FEMA	53	20	TERREBONNE		2000	$581,566	This FEMA project involved the installation of sand fencing and the planting of vegetation to repair areas of Whiskey Island damaged by tropical storms and hurricanes during the fall of 1998. This area is part of a CWPPRA project area and CWPPRA funds were combined with the FEMA funds for repairs.	3A

ONGOING PROTECTION AND RESTORATION PROJECT SUMMARIES

OCPR Program	Name	State Project Number	Project Type	PPL	Federal Sponsor	House District	Senate District	Parish	Acres Benefited	Construction Completion	Total Budget	Project Description	Planning Unit
LOUISIANA COASTAL AREA	LCA Small Bayou Lafourche Reintroduction	BA-70	FD			51, 54, 55, 58, 60	18, 19, 20, 21			Pending	$133,500,000	The project will use a small diversion (less than 5000 cfs) to reintroduce flow from the Mississippi River into Bayou Lafourche. Project goals include providing freshwater, sediment and nutrients needed to reduce salinity, stimulating plant productivity, and reducing wetland loss between Bayous Lafourche and Terrebonne. Funds from the budget surplus of 2008 will be used for the state's cost-share requirement. *Construction cost taken from WRDA 2007 legislation.	3A
LOUISIANA COASTAL AREA	LCA Maintain Land Bridge Between Caillou Lake and Gulf of Mexico	TE-67	MC		USACE	51	20	TERREBONNE	2,800	Pending	$62,600,000	The goals of this project are to prevent connection between the gulf and Caillou Lake by constructing shoreline protection on the gulf and Grand Bayou du Large, marsh creation, and closure of newly opened channels and to minimize saltwater intrusion, prevent gulf shore erosion and increase freshwater influence on marshes in project area.	3A
LOUISIANA COASTAL AREA	LCA Point Au Fer	TE-68	SP		USACE	51	20	TERREBONNE		Pending	$48,300,000	The goal of the project is to stabilize gulf shoreline of Point Au Fer Island to prevent direct connection between gulf and interior water bodies thereby preventing conversion of existing wetlands to marine habitat.	3A
LOUISIANA COASTAL AREA	LCA Terrebonne Basin Barrier Shoreline Restoration	TE-70	BI		USACE	51, 53, 54	20	TERREBONNE	1272	Pending	$133,300,000	This project provides for the restoration of the Timbalier and Isles Dernieres barrier island chains. This would simulate historical conditions by reducing the current number of breaches, enlarging (width and dune crest) of the Isles Dernieres (Raccoon Island, East Island, Trinity Island, Wine Island, and Whiskey Island),Timbalier Island, and East Timbalier Island.	3A
LOUISIANA COASTAL AREA	LCA Convey Atchafalaya River Water to Northern Terrebonne Marshes	TE-71	HR		USACE	52, 51, 50, 53, 54	20, 21	TERREBONNE		Pending	$349,995,500	The project would increase existing Atchafalaya River influence to central (Lake Boudreaux) and eastern (Grand Bayou) Terrebonne marshes via the Gulf Intracoastal Waterway (GIWW).	3A
SECTION 204/1135	Wine Island Restoration	DSR-81558	DM		USACE	20	53	TERREBONNE	37	1991, 2003	$1,007,000	This Section 204/1135 project was a cooperative effort with the USACE and included the use of beneficial dredging from a scheduled Houma Navigational Canal maintenance dredging project to restore Wine Island.	3A
SECTION 204/1135	Houma Navigation Canal, Wine Island Barrier Island Restoration		DM		USACE	53	20	TERREBONNE	50	2002	$1,000,000	This Section 204/1135 project investigated the feasibility of beneficially using the dredged material from the bar channel area in lieu of the Ocean Dredged Material Disposal Site. The project area is approximately 35 miles south of Houma, Louisiana at the mouth of the navigation channel in Terrebonne Bay. The construction schedule of this project was expedited due to the impact of Hurricane Lili and Tropical Storm Isadore.	3A
STATE	Brown Marsh	BRM-01	MC			54	20	LAFOURCHE		2002	$473,365	The project features consisted of a thin layer marsh creation/nourishment covering 44 acres in Lafourche Parish.	3A
STATE	Grand Bayou Blue Site - Dedicated Dredging	LA-01E	DM, MC			53	20	LAFOURCHE		2007	$1,831,534	This project created approximately 38 acres of marsh near Catfish Lake using dredged material from Grand Bayou Blue. This project is part of the coastwide state Dedicated Dredging Program. The goal of this program is to use a small, mobile hydraulic dredge along inland waterways in Louisiana's coastal zone to deposit dredged material, and thereby nourish and/or rebuild threatened coastal marshes adjacent to the waterways.	3A
STATE	Raccoon Island Repair	RI	DM			53	20	TERREBONNE	197	1994	$1,400,000	This project was a cooperative effort that utilized dredged material and vegetation to repair storm damage to Raccoon Island. Cooperators include the Louisiana Department of Natural Resources/Coastal Restoration Division, Louisiana Department of Wildlife and Fisheries/Fur and Refuge Division, Terrebonne Parish Consolidated Government, South Terrebonne Tidewater Management and Conservation District, T. Baker Smith & Son, Inc., Coastal Engineering & Environmental Consultants, Inc., and Bean Dredging. Federal grant money was also utilized for this project by LDWF and TPCG.	3A
STATE	Spoilbank along the GIWW	SBG	VP			52	21	TERREBONNE	1	1993	$9,400	This project planted 8,000 feet of spoilbank along the Gulf Intracoastal Waterway with black willow (Salix nigra) and bald cypress (Taxodium distichum) in an effort to reduce further bank erosion. The effectiveness of different types of nutria exclusion devices was also tested.	3A
STATE	Montegut Wetland	TE-01	MM			53	20	TERREBONNE	4200	1993	$5,537,036	The objective of the Montegut Wetland project is to protect and enhance 4,200 acres of degraded wetland habitat in the Pointe au Chein Wildlife Management Area southeast of Montegut, Louisiana.	3A
STATE	Falgout Canal Wetland	TE-02	MM			51	20	TERREBONNE	1300	1993, 1995	$1,560,000	The primary objectives of this project were to protect approximately 8,000 acres of marsh and cypress-tupelo swamp, reduce saltwater intrusion, and improve wildlife habitat by moderating water flux and tidal energy in the deteriorating wetland community.	3A
STATE	Bayou LaCache Wetland	TE-03	MM			53	20	TERREBONNE	4374	1991, 1996, Pending	$2,047,222	The goal of the project is to minimize the effects of saltwater intrusion by increasing the retention of freshwater derived from local runoff and establish control over saltwater flow into the project area.	3A
STATE	Pointe Aux Chien Hydrologic Restoration	TE-06	MM			53	20	TERREBONNE	4700	2006	$2,771,819	This cooperative coastal restoration project will benefit approximately 4,700 acres of brackish-intermediate marsh within the Pointe Aux Chenes WMA managed by the Louisiana Department of Wildlife and Fisheries. Major funding for the project was provided by Ducks Unlimited and the North American Wetlands Conservation Act.	3A
STATE	Lower Petit Caillou	TE-07B	HR			53	20	TERREBONNE	3465	1995, 2007	$1,536,084	The objective of this project is to decrease saltwater intrusion into the project area by re-routing freshwater discharge from the Lashbrook pumping station through the project area prior to entry into Lake Boudreaux.	3A
STATE	Point Farm Refuge Planting	TE-14	VP			53	20	TERREBONNE		1995	$226,931	This project was developed to create bottomland hardwood forests in former farmlands within the Point Farm Refuge Area (PFRA). Approximately 108,900 seedlings of bitter pecan (Carya aquatica), water oak (Quercus nigra), and cow oak (Quercus michauxii) (with nutria exclusion devices) were planted on 300 acres of former farmland within the PFRA.	3A
SURPLUS 07	Emergency Reserve 2007 - Chabert Hospital Levee	TE-084	OTHER			51	21	TERREBONNE		Pending	$500,000	These funds were used to partially fund a levee around the Chabert Hospital in Terrebonne Parish.	3A
SURPLUS 07	Morganza to the Gulf	TE-64	HP		USACE	51, 52, 53, 54	21, 20	LAFOURCHE, TERREBONNE		Pending	$97,763,455	The project is currently being designed to provide protection to Terrebonne and portions of Lafourches parishes to provide protection against the project storm event. Project will consist of the construction of 66 miles of levees and t-walls, navigation structures, water control structures, and floodgates.	3A
CWPPRA	Atchafalaya Sediment Delivery	AT-02	SD	2	NMFS	50	21	SAINT MARY	2232	1998	$2,532,147	The objective of this project is to enhance natural delta growth by re-opening Natal Channel and Castille Pass. Natal Channel was re-established with a 120-foot wide, 10-foot deep, 8,800-foot long channel and Castille Pass with a 190-foot wide, 10-foot deep, 2,000-foot long channel. Material dredged (700,925 cubic yards) as a result of construction was strategically placed at elevations mimicking natural delta lobes.	3B
CWPPRA	Big Island Mining	AT-03	DM	2	NMFS	50	21	SAINT MARY	1560	1998	$7,077,404	The project includes creating a new western delta lobe behind Big Island to enhance the accretion of land beyond the west bank of the Atchafalaya River. Construction included dredging of a main stem and five branch channels designed to mimic natural channel bifurcations. Dredged material was strategically placed at elevations mimicking natural delta lobes. Re-opening the channels is allowing continued natural sediment transport and marsh growth.	3B
CWPPRA	Castille Pass Channel Sediment Delivery (Deauthorized)	AT-04	SD	9	NMFS	50	21	SAINT MARY	589	Deauthorized	$1,717,883	This project will dredge a system of distributary channels to create 589 acres of marsh through sediment placement and natural deposition.	3B
CWPPRA	Point Au Fer Canal Plugs	TE-22	VP, MC	2	NMFS	51	20	TERREBONNE	375	1997	$5,490,270	This project is intended to reduce saltwater intrusion into the Point au Fer marshes without reducing freshwater back flooding from the Atchafalaya River. Phase I of this project, completed in 1997, involved the plugging of two major natural gas/oil pipeline canals on the eastern half of the island. Under Phase II, a rock shoreline stabilization structure was constructed in 2000 along a thin strech of beach separating the Gulf of Mexico from the Mobil Canal.	3B

ONGOING PROTECTION AND RESTORATION PROJECT SUMMARIES

OCPR Program	Name	State Project Number	Project Type	PPL	Federal Sponsor	House District	Senate District	Parish	Acres Benefited	Construction Completion	Total Budget	Project Description	Planning Unit
CWPPRA	Lake Chapeau Sediment Input and Hydrologic Restoration, Point Au Fer Island	TE-26	MC	3	NMFS	51	20	TERREBONNE	509	1999	$5,932,620	The objectives of this project are to restore the marshes west of Lake Chapeau, re-establish the hydrologic separation of the Locust Bayou and Alligator Bayou watersheds, and re-establish the natural drainage patterns within the Lake Chapeau area. To accomplish this material dredged from Atchafalaya Bay was used to create marsh, oil field access canals were plugged, and spoil banks were gapped. An estimated 850,000 cubic yards of material were hydraulically dredged from Atchafalaya Bay and spread to a thickness of approximately 2 feet to create 160 acres of marsh.	3B
CWPPRA	Brady Canal Hydrologic Restoration	TE-28	HR	3	NRCS	53	20	TERREBONNE	297	2000	$6,408,530	The objective of the project is to maintain the fragile, highly-fragmented transitional marshes between the fresh and estuarine zones by enhancing freshwater, sediment, and nutrient delivery into the area.	3B
CWPPRA	Penchant Basin Natural Resources Plan, Increment 1	TE-34	FD, HR, SP	6	NRCS	53	20	TERREBONNE	675	Pending	$17,628,814	The objective of the project is to divert freshwater flow from north-western to south-eastern sub project areas coupled with protection measures to reduce inundation of fragile marsh areas in overall Penchant Basin in Terrebonne Parish.	3B
CWPPRA	Marsh Creation East of the Atchafalaya River - Avoca Island (Deauthorized)	TE-35	MC	6	USACE	51	21	SAINT MARY	434	Deauthorized	$43	The project consisted of the beneficial use of dredged material from the "Crew Boat Chute" and placing it in the Avoca Island area. Although the project would have benefited 434 acres at a cost of $6,438,400, the cost of the project was estimated to be considerably higher than originally planned, making it economically unjustifiable. The project was officially deauthorized by the CWPPRA Task Force in July of 1998.	3B
CWPPRA	Thin Mat Floating Marsh Enhancement Demonstration	TE-36	MC	7	NRCS	51	21	TERREBONNE		2000	$920,368	The objective of this project is to induce the development of thick-mat, continuously floating marsh from a thin-mat flotant using various combinations of treatments including fertilization, herbivory reduction, and transplanting healthy, thick-mat marsh plugs into the thin-mat flotant. The project will also determine the effects of water movement and sediment availability on these marshes.	3B
CWPPRA	Vermilion River Cutoff Bank Protection	TV-03	SP	1	USACE	47	25	VERMILION	202	1996	$2,022,987	The project design includes protecting the east side of the Vermilion River Cutoff with rock to prevent further erosion; hardening the points on existing land bridges on the west bank of the Cutoff with rock; and constructing sediment trapping fences on the Vermilion Bay side to help stabilize and protect the land bridge from wave action in the Bay.	3B
CWPPRA	Cote Blanche Hydrologic Restoration	TV-04	HR	3	NRCS	51	21	SAINT MARY	2223	1998	$8,290,881	The primary objectives of the project are to reduce future shoreline loss from wave erosion, reduce excessive tidal fluctuations and rapid tidal exchange to prevent scouring of interior marsh, develop a hydrologic regime conducive to sediment and nutrient deposition, and to re-establish vegetation in eroded areas.	3B
CWPPRA	Boston Canal/Vermilion Bay Bank Protection	TV-09	SP	2	NRCS	47	22	VERMILION	378	1995	$1,012,649	The project will stabilize 15 miles of Vermilion Bay shoreline and prevent further regression of the Boston Canal banks. A strip of Vermilion Bay shoreline approximately 25 feet wide by 15 miles long would be planted with single stems of Spartina alterniflora at 3 foot intervals.	3B
CWPPRA	Freshwater Bayou Bank Stabilization - Belle Isle Canal to Lock	TV-11B	SP	9	USACE	47	26	VERMILION	241	Pending	$35,559,962	The project will construct a rock dike to protect the east shoreline of Freshwater Bayou Canal.	3B
CWPPRA	Little Vermilion Bay Sediment Trapping	TV-12	TE	5	NMFS	50	26	VERMILION, IBERIA	441	1999	$886,030	This project is designed to optimize the retention of sediment from the Atchafalaya River to create new marsh areas in Little Vermilion Bay. Dredged material was placed to create emergent marsh, thereby protecting the existing shoreline from wind-induced wave erosion.	3B
CWPPRA	Oaks/Avery Canal Hydrologic Restoration, Increment 1	TV-13A	HR	6	NRCS	47	22	VERMILION, IBERIA	160	2002	$2,925,216	The objective of the project is to improve hydrology, reduce tidal fluctuation to minimize marsh loss, and provide protection to critically eroding bankline and shoreline area.	3B
CWPPRA	Marsh Island Hydrologic Restoration	TV-14	HR	6	USACE	49	22	IBERIA	408	2001	$5,143,323	The objective of the project is to stabilize the northeastern shoreline of Marsh Island, including the northern shoreline of Lake Sand, and to help to restore the historical hydrology. The project included construction of nine plugs in oil and gas canals at the northeast end of Marsh Island, protection of the northeast shoreline with rock, and isolation of Lake Sand from Vermilion Bay with a rock dike.	3B
CWPPRA	Sediment Trapping at "The Jaws"	TV-15	TE, VP	6	NMFS	50	21	SAINT MARY	1999	2005	$1,653,792	The objective of the project is to induce sedimentation to create emergent vegetated wetlands. This will be achieved by constructing wetland terraces, thereby reducing wave fetch. Distributary channels will be dredged to deliver water and sediment to the project area.	3B
CWPPRA	Cheniere Au Tigre Sediment Trapping Demonstration	TV-16	SNT	6	NRCS	47	25	VERMILION		2001	$624,999	The objective of the project is to field test a conceptual device designed to trap sediment from the gulf tides, stabilize the on-going erosion on Cheniere au Tigre and build up portions of the coastline that have already eroded away.	3B
CWPPRA	Lake Portage Land Bridge	TV-17	SP	8	NRCS	47	22	VERMILION	1496	2004	$1,181,129	The objective of this project is to prevent the shoreline south of Lake Portage from breaching and creating another pass from Vermilion Bay to the Gulf. The project consists of backfilling a canal and armoring the beach with rock.	3B
CWPPRA	Four Mile Canal Terracing and Sediment Trapping	TV-18	TE	9	NMFS	49	26	IBERIA	52	2004	$2,079,048	This project includes construction and planting of terraces with smooth cordgrass (Spartina alterniflora) within Little White Lake and Little Vermilion Bay, along Four Mile Canal, to abate wave-induced shoreline erosion and facilitate sedimentation in the open water areas between the terraces.	3B
CWPPRA	Weeks Bay Marsh Creation and Shore Protection/Commercial Canal Freshwater Redirection	TV-19	SP	9	USACE	49	22	IBERIA	278	Pending	$30,227	The goal of the project is to create marsh to restore land-bridge separating Weeks Bay and GIWW.	3B
CWPPRA	Bayou Sale Shoreline Protection	TV-20	SP	13	NRCS	50	21	SAINT MARY	131	Pending	$32,103,020	The goal of the project is to protect an eroding shoreline with approx 35,776 feet of rock dike shoreline protection.	3B
CWPPRA	East Marsh Island Marsh Creation	TV-21	MC	14	NRCS	49	22	IBERIA	1159	2010	$21,215,936	The objective of the project was to create approximately 362 acres of sustainable marsh. The majority of the project area has been converted to open water, primarily because of hurricane Lili (2002). Through the use of approximately $5 million in unused construction funds, over 500 acres of additional marsh was created/nourished. The sediment for marsh creation was dredged from East Cote Blanche Bay and pumped a maximum of 6 miles.	3B
CDBG	Flood Control Structure at Boston Canal	TV-58	HP		HUD	47	26	VERMILION		Pending	$5,800,000	This project will construct a flood control structure at the intersection of Boston Canal and the GIWW, which could be closed in the event of a hurricane or tropical storm.intersection of Boston Canal and the GIWW, that could be closed in the event of a hurricane or tropical storm.	3B
CIAP	Rainey Audubon Wildlife Sanctuary Earthen Terraces	RAINEY	MC			47	26	VERMILION		2005	$951,869	The project consists of constructing approximately 35,000 linear feet of terraces. The terraces were created by dredging in shallow open water areas and piling the spoil on one side of the borrow area. An additional $391,763 was contributed from the CIAP of 2001.	3B
ENERGY BILL CIAP	Morgan City Industrial Road	AT-05	OTHER		BOEMRE	51	21	SAINT MARY		Pending	$1,655,000	The project is a road alignment that begins at the First Street floodgate in Morgan City, LA. The alignment will proceed along the unprotected side of the floodwall a distance of 1857 feet. And end at the Port of Morgan City's north gate. The project goal is to reduce the truck traffic through the residential neighborhoods by rerouting the traffic through the proposed realigned road. The preliminary project benefit is to provide more road access to the industrial facilities and the museum through the proposed new road, and decrease the traffic in the residential area.	3B
ENERGY BILL CIAP	Port of Iberia Bridge Replacement - Port Road over Commercial Canal	TV-28	OTHER		BOEMRE	49	22	IBERIA		Pending	$1,000,000	The project is located in Iberia Parish, and will aid the Port of Iberia in its day to day operations. This project will replace the bridge on Port Road over Commercial Canal. The existing bridge is approximately 24 feet wide and 76 feet long. The Port of Iberia handles a substantial amount of OCS produced products and the large equipment used in transporting these products take a major toll on the ports bridges and roadways.	3B
ENERGY BILL CIAP	Port of Iberia Bridge Replacement - David Dubois Road over Commercial Canal	TV-30	OTHER		BOEMRE	49	22	IBERIA		Pending	$1,020,000	The project is located in Iberia Parish, and will aid the Port of Iberia in its day to day operations. This project will replace the bridge on David Dubois Road over Commercial Canal. The existing bridge is approximately 24 feet wide by 70 feet long. The Port of Iberia handles a substantial amount of OCS produced products and the large equipment used in transporting these products takes a major toll on the port's bridges and roadways.	3B

ONGOING PROTECTION AND RESTORATION PROJECT SUMMARIES

OCPR Program	Name	State Project Number	Project Type	PPL	Federal Sponsor	House District	Senate District	Parish	Acres Benefited	Construction Completion	Total Budget	Project Description	Planning Unit
ENERGY BILL CIAP	Acadiana Regional Airport Street Improvements - Admiral Doyle Drive	TV-31	OTHER		BOEMRE	49	22	IBERIA		Pending	$653,989	This project will patch and overlay 5,310 feet (about 1 mile) of Admiral Doyle Road around the Acadiana Regional Airport in Iberia Parish from its intersection with LA 3212 to the end of the four lane section. This project will provide improved access to both the airport and the Port of Iberia, both of which support OCS facilities and commerce.	3B
FEMA	Marsh Island Repairs	PW-1646	MM		FEMA	49	22	IBERIA		2005	$885,861	This FEMA project consisted of repairs to areas of stone paving, stone dikes, and minor repair of navigation aids on the Marsh Island Hydrologic Restoration (TV-14) project damaged during Hurricane Lili in 2002. The project also included minor maintenance work paid for by CWPPRA.	3B
FEMA	Cote Blanche Repairs	PW-1906	HR		FEMA	50	21	SAINT MARY		2005	$64,092	This FEMA project consisted of repairs to areas of stone paving, stone dikes, and minor repair of navigation aids on the Cote Blanche Hydrologic Restoration (TV-04) project damaged during Hurricane Lili in 2002. The project also included minor maintenance work paid for by CWPPRA.	3B
STATE	Cheniere Au Tigre	CAT-01	SP		BOEMRE	47	26	VERMILION		2005	$1,802,271	The primary objective of the project is to protect the Cheniere au Tigre shoreline from additional erosion and protect local infrastructure. This project will use segmented rock breakwater structures to help reduce the rate of shoreline erosion and promote sediment deposition along the beach north of the breakwater structures. The proposed series of segmented breakwaters will be placed just east of the CWPPRA funded TV-16 project with up to nine additional structures. The structures will cover approximately 2,800 linear feet with an approximate distance of 240 feet from the existing shoreline.	3B
STATE	Terrebonne School Board Site - Dedicated Dredging	LA-01D	DM			51	20	TERREBONNE		2006	$2,599,587	This project created approximately 40 acres of marsh just north of Lake DeCade along the western bank of Minors Canal. This project is part of the coastwide state Dedicated Dredging Program. The goal of this program is to use a small, mobile hydraulic dredge along inland waterways in Louisiana's coastal zone to deposit dredged material, and thereby nourish and/or rebuild threatened coastal marshes adjacent to the waterways.	3B
STATE	Dedicated Dredging - Point au Fer	LA-01F	DM			51	20	TERREBONNE		2007	$2,469,250	This project created approximately 67 acres of marsh on Point Au Fer Island adjacent to the CWPPRA TE-26 project using material dredged from Atchafalaya Bay. This project is part of the coastwide state Dedicated Dredging Program. The goal of this program is to use a small, mobile hydraulic dredge along inland waterways in Louisiana's coastal zone to deposit dredged material, and thereby nourish and/or rebuild threatened coastal marshes adjacent to the waterways.	3B
STATE	Yellow Bayou	TV-02b	SP			50	21	SAINT MARY	126	1992	$194,500	The objectives of the project were to maintain the integrity of approximately 2,000 acres of interior marsh between Jackson Bayou and the British-American Canal and to stabilize 7,465 feet of the East Cote Blanche Bay shoreline. This was achieved by constructing an oyster shell berm adjacent to the water's edge to reduce shoreline erosion.	3B
STATE	Marsh Island Control Structures	TV-06	MM			49	22	IBERIA	643	1993	$453,500	The objectives of this project were to reduce the rate of land loss, revegetate shallow open-water areas, and increase waterfowl food within the water management units. Flap-gated/stoplog culverts and earthen canal plugs were installed in October of 1993 at the northeast and southeast units to control water exchange between the units and the surrounding water bodies. Within the management units, canal spoil banks were breached and ditches were constructed to facilitate water movement between interior marsh ponds.	3B
STATE	Freshwater Bayou Bank Protection	TV-11	SP			49, 47	26	VERMILION	241	1994	$2,177,025	This project conserves vegetated wetlands by maintaining the physical integrity of marshes that separate Freshwater Bayou and interior water bodies. The dominant project feature consists of the construction of 24,000 linear feet of rock dike, extending north to the confluence of Belle Isle Bayou and Freshwater Bayou. The original project was constructed in 1994; however, repairs were made to the structure in 1996 and 2001.	3B
STATE	Oaks/Avery Structures	TV-13B	SP			49	22, 26	VERMILION, IBERIA	160	2000	$3,107,735	This project enhanced the adjacent CWPPRA-funded TV-13a project by installing low-sill structures at the outfall of Oaks and Avery Canals to redirect more water flow through the portion of Bayou Petite Anse south of the GIWW.	3B
STATE	Quintana Canal/Cypremort Point	TV-4355NP1	SP			50	21	SAINT MARY	26	1998	$1,316,818	The project features approximately 3,650 linear feet of rock breakwaters along the Vermilion Bay shoreline and approximately 3,375 linear feet of foreshore rock dike along the Vermilion Bay/Quintana Canal intersect and the south bank of the Quintana Canal.	3B
SURPLUS 08	Franklin Floodgate Sinkable Barge and Pump Station	TV-52	HP		HUD	50	21	SAINT MARY		Pending	$5,775,000	This project will construct a sinkable barge structure on Franklin Canal to prevent storm surge from inundating the town of Franklin.	3B
SURPLUS 09	Alexandria to the Gulf	AT-12	OTHER		USACE	26	29	RAPIDES		Pending	$970,000	Alexandria to the Gulf or ATOG is currently in Feasibility Study phase. The study will evaluate options and alternates for providing urban drainage and flood reduction to the City of Alexandria and irrigation and flood reduction benefits to agricultural areas south and southeast of the city.	3B
SURPLUS 09	Atchafalaya Basin Natural Resources Inventory and Assessment	AT-13	OTHER			49, 31, 48, 43, 46, 44, 45, 60	21, 22, 17	SAINT MARY, IBERIA, SAINT MARTIN		Pending	$1,450,000	This project assesses and inventories the natural resources in the Atchafalaya Swamp.	3B
SURPLUS 09	South Central Coastal Plan	TV-54	CPX		USACE	49, 48, 50	21, 22	SAINT MARY, IBERIA, SAINT MARTIN		Pending	$970,000	The South Central Coastal project was authorized $970,000 in 2009 surplus funds. The project team, which includes the Office of Coastal Protection and Restoration, St Mary Parish, St. Martin Parish and Iberia Parish, have initiated a data gathering effort. We anticipate completing this phase of the project by the end of 2010. This information will be used kick start the project with the US Army corps of Engineers. Once study authorization is obtained from the US Congress the project will progress to the feasibility phase.	3B
SURPLUS 09	Morgan City/ St Mary Flood Protection	TV-55	HP			50,51	21	SAINT MARY		Pending	$3,870,000	This project will provide flood protection improvements by raising or improving over seven miles of the current levee system in the Morgan City area.	3B
SURPLUS 09	Four-Mile Canal Storm Surge Reduction Construction	TV-56	HP			49	26	VERMILION		Pending	$6,280,000	This project will provide flood protection improvements for Southern Vermilion Parish. This project consists of design, engineering, and construction of a swing barge flood control structure on Four-Mile Canal, just south of the Intracoastal Waterway.	3B
SURPLUS 09	Delcambre-Avery Canal (E&D)	TV-57	HP			49	22	IBERIA		Pending	$970,000	This project will design and engineer a flood control structure for the Delcambre-Avery Canal just south of the Intracoastal Waterway. When constructed this project will provide flood protection improvements by allowing the closure of the Delcambre-Avery Canal to reduce the impact of storm surge from Vermilion Bay.	3B
CWPPRA	Cameron-Creole Maintenance	CS-04A	HR	3	NRCS	36	25	CAMERON	2602	1997	$22,900,000	The project area falls within the Cameron-Creole watershed management area, which has been adversely impacted by saltwater intrusion and loss of sediments due to channelization and water diversion of the Calcasieu River. The project will provide maintenance for the existing 19 miles of levee and five major structures which make up the Cameron-Creole Watershed Project.	4
CWPPRA	Brown Lake Hydrologic Restoration (Deauthorized)	CS-09	MM	2	NRCS	47, 36	25	CALCASIEU, CAMERON	916	Deauthorized	$4,002,363	The project will restore, to the extent possible, the natural hydrology of the area. A reduction in marsh loss and improved water conditions are expected to occur following project implementation. Long-term water management objectives will be directed towards maintaining a brackish marsh system.	4

ONGOING PROTECTION AND RESTORATION PROJECT SUMMARIES

OCPR Program	Name	State Project Number	Project Type	PPL	Federal Sponsor	House District	Senate District	Parish	Acres Benefited	Construction Completion	Total Budget	Project Description	Planning Unit
CWPPRA	Sweet Lake/Willow Lake Hydrologic Restoration	CS-11B	SP	5	NRCS	47	25	CAMERON	247	2002	$168,904	The project objectives are to re-establish the shoreline (hydrologic boundary) between Sweet Lake and the Gulf Intracoastal Waterway (GIWW), to reduce lake turbidity and tidal exchange, and to halt erosion and trap sediment needed to rebuild marsh along the northern and northwestern shorelines of Sweet Lake. This project includes construction of rock embankments on the GIWW to close off the lakes, vegetation plantings to reduce erosion, and construction of earthen terraces combined with vegetation plantings in open water areas to promote revegetation.	4
CWPPRA	Sabine National Wildlife Refuge Erosion Protection	CS-18	SP	1	USFWS	47	25	CAMERON	5542	1995	$302,783	The goal of this project is to protect 13,000 acres of fresh marsh from deterioration associated with the anticipated failure of the existing west levee. The original design was to reconstruct 5.5 miles of eroded levee. The project was redesigned to include 1,000 feet of levee reconstruction and 5.5 miles of rock armor. Vegetation plantings were used to reduce erosion from boat traffic.	4
CWPPRA	West Hackberry Vegetative Planting Demonstration	CS-19	VP	1	NRCS	47	25	CAMERON		1994	$47,089	The goal of this demonstration project is to reduce marsh erosion from interior open water wave energy using vegetation plantings consisting of California bullrush (Schoenoplectus californicus). In addition, wave-stilling hay bale fences were utilized to protect the vegetation plantings.	4
CWPPRA	East Mud Lake Marsh Management	CS-20	MM	2	NRCS	36	25	CAMERON	1520	1996	$4,943,153	The project will create a hydrologic regime conducive to restoration, protection, and enhancement of the Mud Lake area by using various types of water control structures and vegetative plantings. Structural components include culverts with flap gates, two variable crest weirs, three earthen plugs, overflow bank and repair of existing levee.	4
CWPPRA	Highway 384 Hydrologic Restoration	CS-21	MM	2	NRCS	33	27	CAMERON	650	2000	$1,211,893	The project purpose is to restore the natural hydrology of the project area and eliminate undesirably high salinities and severe water fluctuations, tremendously reduce the potential for future marsh losses.	4
CWPPRA	Clear Marais Bank Protection	CS-22	SP	2	BOEMRE	36	30	CALCASIEU	1067	1997	$3,696,088	The project is located north of the Gulf Intracoastal Waterway (GIWW) approximately 10 miles northwest of Hackberry in Calcasieu Parish, Louisiana. The goal of this project is to extend the rock armored shoreline stabilization by one mile adjacent to the GIWW to prevent continued erosion of the GIWW levee and to prevent the encroachment of the GIWW into the marshes north of the project area.	4
CWPPRA	Replace Sabine Refuge Water Control Structures at Headquarters Canal, West Cove Canal, and Hog Island Gully	CS-23	MM	3	USFWS	36	25	CAMERON	953	2001	$5,560,258	The project replaced the existing structures with ones that have substantially greater discharge potential and greater management flexibility.	4
CWPPRA	Perry Ridge Shore Protection	CS-24	SP	4	NRCS	33	30	CALCASIEU	1203	1999	$2,289,090	The project will reduce tidal scour, wave action from boats, and other excessive energy impacts on interior marshes and the possibility of saltwater intrusion by repairing the northern spoil bank of the GIWW. Rip-rap will be placed along low areas of the northern bank of the GIWW from Perry Ridge to Vinton Drainage Canal.	4
CWPPRA	Plowed Terraces Demonstration	CS-25	SNT	4	NRCS	33, 47	25, 30	CAMERON		2000	$44,569	This objective of this demonstration project is to develop and demonstrate a non-traditional procedure for constructing earthen terraces in shallow open water areas. Thirty-eight earthen terraces served as wave-stilling, sediment-trapping structures and provided a medium base for the establishment of emergent vegetation.	4
CWPPRA	Compost Demonstration (Deauthorized)	CS-26	MC	4	EPA	36	25	CAMERON		Deauthorized	$238,738	This project was authorized to evaluate the effectiveness of using tree trimmings as compostable material, using compost amended material in providing a growth medium for emergent vegetation, and determining settlement rates of the compost amended materials and tree trimmings. The project was officially deauthorized by the CWPPRA Task Force in January 2002.	4
CWPPRA	Black Bayou Hydrologic Restoration	CS-27	HR	6	NMFS	33	25	CALCASIEU, CAMERON	3594	2003	$6,136,285	The project goals are to reduce wetland loss resulting from hydrologic changes including reduced freshwater inflow, increased magnitude and duration of tidal fluctuations, increased salinities, higher water levels, and excessive water exchange. This project included the construction of spoil banks, weirs, plugs, and culverts designed to allow freshwater from the Gulf Intracoastal Waterway (GIWW) into the wetlands and to create a hydrologic head that increases freshwater retention time and reduces saltwater intrusion.	4
CWPPRA	Sabine Refuge Marsh Creation, Cycle 1	CS-28-1	MC	8	USACE	36	25	CAMERON	214	2002	$3,421,671	The Sabine Refuge Marsh Creation Cycle 1 Project consists of the placement of dredged material from routine maintenance of the Calcasieu River Ship Channel via temporary pipeline into a marsh creation site within the Sabine National Wildlife Refuge.	4
CWPPRA	Sabine Refuge Marsh Creation, Cycle 2	CS-28-2	MC	8	USACE	36	26	CAMERON	234	2010	$6,636,312	The Sabine Refuge Marsh Creation Cycle 2 Project consists of the placement of dredged material (approximately 750,000 cubic yards) from routine maintenance of the Calcasieu River Ship Channel via pipeline into a marsh creation site within the Sabine National Wildlife Refuge.	4
CWPPRA	Sabine Refuge Marsh Creation, Cycle 3	CS-28-3	MC	8	USACE	36	25	CAMERON	231	2010	$10,495	The Sabine Refuge Marsh Creation Cycle 3 Project consists of the placement of dredged material from routine maintenance of the Calcasieu River Ship Channel via temporary pipeline into a marsh creation site within the Sabine National Wildlife Refuge.	4
CWPPRA	Black Bayou Culverts Hydrologic Restoration	CS-29	HR	9	NRCS	33	27	CALCASIEU	540	2007	$5,391,125	The project goal was to construct 10 box culverts (10 ft x 10 ft) with flap gates in the embankment of Highway 384 in Cameron Parish.	4
CWPPRA	GIWW - Perry Ridge West Bank Stabilization	CS-30	SP	9	NRCS	33	30	CALCASIEU	1132	2001	$1,776,021	The project consists of installing rock along the bank to prevent further erosion.	4
CWPPRA	Holly Beach Sand Management	CS-31	SP	11	NRCS	47	25	CAMERON	330	2003	$25,762,396	The purpose of the project is to protect existing coastal wetlands by restoring and maintaining the integrity and functionality of the remaining chenier/beach ridge. This objective was accomplished through beach renourishment, installation of sand fencing, vegetation plantings, and monitoring of the shoreline response. This project was originally authorized on the 9th PPL as the complex project: Holly Beach Project, CS-01.	4
CWPPRA	East Sabine Lake Hydrologic Restoration CU1	CS-32-CU1	TE, HR	10	USFWS	47	25	CAMERON	281	2009	$5,614,413	The objectives of this project are to protect and restore area marsh, and restore the historical hydrologic regime to the Sabine National Wildlife Refuge. This was to be accomplished using shoreline protection, terraces, vegetation plantings, and water control structures to reduce tidal scour, shoreline erosion, turbidity, and salinities. However, design of the water control structures has been discontinued and the remaining construction funds was used to build additional terraces.	4
CWPPRA	Cameron-Creole Freshwater Introduction	CS-49	VP, FD	18	NRCS	47	25	CAMERON	473	Pending	$12,787,044	The purpose of the project is to restore the function, value and sustainability to approximately 22,247 acres of marsh and open water by improving hydrologic conditions via freshwater input and increasing organic productivity.	4
CWPPRA	Kelso Bayou Marsh Creation and Hydrologic Restoration	CS-53	MC, SP	20	NRCS	47	25	CAMERON	274	Pending	$16,632,765	The goal of this project is to restore and protect approximately 319 acres of critically important marsh and the numerous functions provided by those acres. The proposed project will restore a portion of the historic meandering channel of Kelso Bayou and provide direct protection to Louisiana State Highway 27, the region's only northward hurricane evacuation route.	4
CWPPRA	Cameron-Creole Watershed Grand Bayou Marsh Creation	CS-54	MC	20	USFWS	47	25	CAMERON	534	Pending	$23,405,612	Project goals include creating 609 acres of brackish marsh and nourishing 7 acres of brackish marsh with dedicated dredged material from Calcasieu Lake to benefit fish and wildlife resources in the Cameron Prairie National Wildlife Refuge and adjacent brackish marshes of the Calcasieu Lake estuary.	4
CWPPRA	Shoreline Protection Foundation Improvements Demonstration	LA-06	SP	13	USACE	47	26	VERMILION	0	2006	$1,055,000	The purpose of the project is to Investigate the potential to improve the foundation of rock dikes. The project was paired with the South White Lake Shoreline Protection (ME-22) project.	4
CWPPRA	Bioengineered Oyster Reef Demonstration	LA-08	SP	17	NMFS	47	25	CAMERON	4.5	Pending	$2,325,535	This project is intended to evaluate the Oysterbreak structure to prevent beach erosion and increase habitat diversity associated with natural oyster reefs.	4
CWPPRA	Freshwater Bayou Wetland Protection	ME-04	SP	2	NRCS	47	25	VERMILION	14381	1998	$3,558,027	The project features include the installation of 10,000 linear feet of rock breakwater (rip-rap) along the west shoreline of Freshwater Bayou Canal, where needed, to protect this shoreline from further erosion; and the installation of gated water control structures on the Acadiana Marina Canal to reduce ponding in the area known as the Freshwater Bayou Wetlands.	4
CWPPRA	Dewitt-Rollover Vegetative Plantings Demonstration (Deauthorized)	ME-08	VP	1	NRCS	47	26	VERMILLION	102	1994; Deauthorized	$1,155	This demonstration project's purpose was to investigate the ability of vegetation plantings of smooth cordgrass (Spartina alterniflora) to colonize a newly accreted mudflat, thereby establishing a vegetation buffer between the Gulf of Mexico and coastal wetlands. This project was officially deauthorized by the CWPPRA Task Force in February 1996 because no plants remained.	4

ONGOING PROTECTION AND RESTORATION PROJECT SUMMARIES

OCPR Program	Name	State Project Number	Project Type	PPL	Federal Sponsor	House District	Senate District	Parish	Acres Benefited	Construction Completion	Total Budget	Project Description	Planning Unit
CWPPRA	Cameron Prairie National Wildlife Refuge Shoreline Protection	ME-09	SP	1	USFWS	36	25	CAMERON	640	1994	$1,227,123	The project will protect the emergent wetlands of the Cameron Prairie National Wildlife Refuge adjacent to the GIWW, enhance the emergent wetlands protected by constructing approximately 2.5 miles of rock dike parallel to the existing spoil bank, and terminate the encroachment of the GIWW into the refuge.	4
CWPPRA	Humble Canal Hydrologic Restoration	ME-11	HR	8	NRCS	36	25	CAMERON	378	2003	$1,530,812	The project consists of replacing the existing Humble Canal structure to restore water management capabilities to the area.	4
CWPPRA	Southwest Shore White Lake Demonstration (Deauthorized)	ME-12	SP	3	NRCS	47	25,26	IBERIA		1996; Deauthorized	$13,864	The objective of this demonstration project was to stabilize one mile of the White Lake shoreline and prevent breaching into Deep Lake. The project was initiated to determine if California bulrush (Schoenoplectus californicus) is effective at damping high energy wave action. The project was officially deauthorized by the CWPPRA Task Force in October of 1998 and is no longer monitored.	4
CWPPRA	Freshwater Bayou Bank Stabilization	ME-13	SP	5	NRCS	47	25	VERMILION	511	1998	$2,583,559	The goal of this project is to stop erosion along the bank of Freshwater Bayou Canal and to protect the interior wetlands from saltwater intrusion, increased tidal exchange and wake-induced erosion. This will be achieved by constructing a rock dike along critical areas of the eastern and western banks of the canal.	4
CWPPRA	Pecan Island Terracing	ME-14	TE	8	NMFS	47	26	VERMILION	437	2003	$2,390,984	The goal of this project is to convert areas of open water back to vegetated marsh. Project features included the construction of earthen terraces to reduce wave action. Terraces were constructed in a staggered gap formation and planted with smooth cordgrass (Spartina alterniflora) and California bulrush (Schoenoplectus californicus).	4
CWPPRA	Freshwater Introduction South of Highway 82	ME-16	HR	9	USFWS	47	25, 26	IBERIA	296	2006	$6,203,110	The purpose of the project was to move freshwater from White Lake across LA Hw 82 to target marshes and marsh restoration through earthen terraces.	4
CWPPRA	Little Pecan Bayou Hydrologic Restoration	ME-17	HR	9	NRCS	36	25	CAMERON	144	Pending	$1,245,278	The purpose of the project was to introduce fresh water into brackish marsh habitat south of La. Highway 82 through use of water control structures and conveyance channels.	4
CWPPRA	Rockefeller Refuge Gulf Shoreline Stabilization	ME-18	SP	10	NMFS	47	25	CAMERON	863	Pending	$738,174	The purpose of the project was to construct a continuous near shore breakwater along the Gulf of Mexico shoreline, approximately 50,691 feet from Beach Prong to Joseph Harbor.	4
CWPPRA	Grand-White Lakes Landbridge Protection	ME-19	SP	10	USFWS	47	25	CAMERON	213	2004	$9,635,124	The purpose of the project was to prevent the coalesence of Grand and White Lakes through the installation of 11,000 feet of hard shoreline stabilization and construction of terraces.	4
CWPPRA	South Grand Chenier Hydrologic Restoration	ME-20	HR, MC	11	USFWS	47	25	VERMILION	440	Pending	$29,039,209	The object of the project was a reduction in salinity in target marshes via fresh water introduction from Upper Mud Lake via the Dr. Miller Canal and culverts under Hwy 82. Restoration of 402 acres of brackish marsh from shallow open water and nourishment of 51 acres of marsh (total 453 acres) in two cells (176 and 277 acres) via 1.55 M cubic yards of dredged material from a Gulf of Mexico borrow site.	4
CWPPRA	Grand Lake Shoreline Protection, Tebo Point	ME-21	SP	11	USACE	47	25	CAMERON	495	Pending	$10,055,616	A rock dike was constructedto protect the south shoreline of Grand Lake from Catfish Lake to Tebo Point and perform O&M on this and portion from Superior Canal to Catfish Lake.	4
CWPPRA	South White Lake Shoreline Protection	ME-22	SP	12	USACE	47	26	VERMILION	844	2006	$19,673,961	A rock dike was constructed to protect the south shoreline of White Lake.	4
CWPPRA	South Pecan Island Freshwater Introduction (Deauthorized)	ME-23	FD	16	NMFS	47	26	CAMERON	98	Deauthorized	$4,438,693	The purpose of the project was to introduce freshwater from the lakes subbasin north, under Hwy. 82 and into the lakes subbasin south of Hwy. 82. The project was officially deauthorized by the CWPPRA Task Force in January of 2011.	4
CWPPRA	Southwest Louisiana Gulf Shoreline Nourishment and Protection	ME-24	OTHER	16	USACE	47	25, 26	IBERIA	888	Pending	$17,144,234	The goal of the project was to nourish 47,900 linear feet of gulf shoreline with sediment between Dewitt Canal and Big Constance Lake; and create approximately 421 acres of marsh platform, mud flat and shallow water, extending approximately 384 feet seaward. The project is on hold until the Phase I CSA template is finalized with the COE.	4
CWPPRA	Freshwater Bayou Marsh Creation	ME-31	MC	19	NRCS	47	26	VERMILION	401	Pending	$25,523,755	The purpose of the project is to create and/or nourish about 400 acres of marsh near Freshwater Bayou north of intersection with Humble Canal.	4
CDBG	Front Ridge Chenier Terracing/Protection	TV-60	TE		HUD	47	26	VERMILION		Pending	$1,900,000	This project will construct approximately 85,000 linear feet of marsh terraces south east of Pecan Island in Vermilion Parish.	4
ENERGY BILL CIAP	Trosclair Road Repairs	CS-47	OTHER		BOEMRE	47	25	CAMERON		Pending	$2,039,592	The proposed project will overlay Trosclair Road, a parish road that is heavily used by oilfield traffic. The project is approximately 8 miles long and connects State Highway 27/82 from Cameron to State Highway 82 to Oak Grove.	4
ENERGY BILL CIAP	Rockefeller Shoreline Protection Demo (CIAP)	ME-18 (EB)	SP		BOEMRE	47	25	CAMERON	23	Pending	$596,473	The project will construct three types of shoreline protection structures as a demonstration to determine which type(s) of structures are successful in protecting the shoreline. Successful structure(s) will be used in a larger CWPPRA Project.	4
ENERGY BILL CIAP	Grand Lake Shoreline Protection (CIAP)	ME-21(EB)	SP		BOEMRE	47	25	CAMERON	495	Pending	$10,600,000	This project will construct approximately 37,800 linear feet of shoreline protection on the south shore of Grand Lake from Superior Canal to Tebo Point.	4
FEMA	Cameron Creole Structures	PW-4257	HR		FEMA	47	25	CAMERON		2007	$325,700	This FEMA project consists of repairs to five structures of the Cameron-Creole Maintenance (CS-04a) project that were damaged by Hurricane Rita in 2005. These structures are located at Grand, Peconi, Lambert, No Name, and Mangrove Bayous.	4
FEMA	Holly Beach Sand Fencing	PW-4403	SP		FEMA	47	25	CAMERON		2006	$218,473	This FEMA project consists of the replacement of 46,000 linear feet of sand fencing on the Holly Beach Sand Management (CS-31) project that was destroyed by Hurricane Rita in 2005.	4
SECTION 204/1135	Calcasieu River and Pass (Sabine NWR) Phase I, II, III		DM		USACE	47	25	CAMERON	480	1999	$1,560,804	This Section 204 project provides for the disposal of dredged material removed from the area between mile 7.5 and 11.5 of the Calcasieu Ship Channel. A total of 4 million cubic yards of material was deposited in three phases within the Sabine National Wildlife refuge at an elevation conducive to marsh creation.	4
SECTION 204/1135	Brown Lake		MC, DM		USACE	47	25	CAMERON	315	1999	$1,132,435	The project will restore, to the extent possible, the natural hydrology of the area. A reduction in marsh loss and improved water conditions are expected to occur following project implementation. Long-term water management objectives will be directed towards maintaining a brackish marsh system.	4
STATE	Brannon Ditch	BD	SP			36	30	CALCASIEU	480	1991	$12,440	This project included the construction of wooden breakwater fences along 2,200 feet of the GIWW across from Brannon Ditch in Calcasieu Parish. This area has experienced shoreline erosion in excess of 25 feet/year. The breakwaters will reduce wave action from boats and the current from Brannon Ditch during periods of high discharge. Smooth cordgrass (Spartina alterniflora) was also planted behind the breakwaters in order to enhance accretion and increase the stability of this site.	4
STATE	Holly Beach	CS-01	SP			47	25	CAMERON		1991, 1992, 1993, 1994	$8,437,000	The objective of this project is to protect the marsh north of the Gulf of Mexico shoreline by expanding shoreline protection in phases from Ocean View, Louisiana to the east near Calcasieu Pass. A total of 34 breakwaters were constructed in 1991, 21 breakwaters were constructed in 1992, 21 breakwaters were constructed in 1993, and nine breakwaters were constructed in 1994 between Calcasieu Pass and Holly Beach, Louisiana. Eighteen of the existing breakwaters were raised and/or extended in 2003 utilizing marine mattress foundations and armor stone.	4
STATE	Rycade Canal Marsh Management	CS-02	MM			47	25	CAMERON	6575	1994	$2,005,857	The project was designed to stabilize salinities and water levels by reducing water flows through Rycade canal and Black Lake.	4
STATE	Cameron-Creole Structure Automation	CS-04A-1	HR			47	25	CAMERON	110000	1999	$700,000	This project consists of automating three existing water control structures along the east shore of Calcasieu Lake. These structures are remotely located and are difficult to manipulate. Automation of these structures will improve management capabilities in the Sabine National Wildlife Refuge.	4
STATE	Blind Lake	CS-BL	SP			47	25	CAMERON	480	1989	$173,433	The purpose of this project was to prevent the Gulf Intracoastal Waterway from breaching into Blind Lake. The project consisted of placing 2,339 linear feet of limestone breakwater along the south side of the GIWW adjacent to Blind Lake. The second phase of this project included planting giant cutgrass (Zizaniopsis miliacea) along the inside of the breakwater to enhance the accretion process.	4

ONGOING PROTECTION AND RESTORATION PROJECT SUMMARIES

OCPR Program	Name	State Project Number	Project Type	PPL	Federal Sponsor	House District	Senate District	Parish	Acres Benefited	Construction Completion	Total Budget	Project Description	Planning Unit
STATE	Sabine Terraces	CS-ST	SNT			47	25	CAMERON	110	1990	$190,047	A total of 128 earthen terraces were constructed in a checkerboard pattern and planted with smooth cordgrass (Spartina alterniflora) in open water areas of the Sabine National Wildlife Refuge. This will increase the length of marsh-water interface, re-establish emergent marsh vegetation, reduce marsh fringe retreat by reducing wind-generated wave energy, increase overall primary productivity, and promote the deposition of suspended sediment.	4
STATE	Pecan Island Freshwater Introduction	ME-01	FD			47	26	VERMILION	39000	1992	$487,152	The purpose of this project is to introduce freshwater from the north to counteract the saltwater intrusion from the south. The project consists of two water control structures and approximately 5,700 linear feet of earthen embankment needed to channel water from White Lake to the south marshes.	4
STATE	Sabine Shellbank Stabilization	SSB	SP			47	25	CAMERON	10	1990	$66,000	The purpose of this project was to provide natural shoreline protection by using tidal currents to deposit clam shell on the shoreline. The benefits of this design over the use of permanent structures are lower cost, less disturbance of the natural habitat during construction, and allowing natural distribution of sediment and organisms without impediment.	4
SURPLUS 07	Cameron Parish Shoreline Restoration	CS-33	OTHER			47	25	CAMERON	523	Pending	$45,800,000	The project will re-establish the dunes and beachead for 8.7 miles extending from the western Calcasieu River Jetty to the eastern-most breakwater at the Holly Beach – Constance Beach breakwater field.	4
SURPLUS 07	Black Lake Supplemental Beneficial Use Disposal Area	CS-34	DM		USACE	47	25	CAMERON	440	2010	$21,034,329	The project beneficially used dredged sediment from maintenance dredging of the Calcasieu River Ship Channel from mile 14 thru mile 17 for delivery by sediment pipeline to the Black Lake/Marcantel Beneficial Use site.	4
SURPLUS 08	Southwest Coastal Louisiana Feasibility Study	LA-20	DM, TE, SP, MC		USACE	47, 35, 36, 33, 34	30, 25, 26, 27	CALCASIEU, VERMILION, CAMERON		Pending	$8,800,000	The project integrates ecosystem restoration and hurricane protection alternatives to address the coastal issues of Southwest Louisiana. It includes shoreline stabilization, marsh creation, salinity control, hurricane protection, and chenier restoration measures. Project was authorized December 7, 2005.	4
SURPLUS 08	Acadiana to the Gulf of Mexico Access Channel (AGMAC)	TV-11B.1	OTHER		USACE	104, 103	22, 26	VERMILION, IBERIA		Pending	$1,000,000	Surplus funds will be used for mitigation of additional work required by 2007 WRDA legislation.	4
CWPPRA	Nutria Harvest for Wetland Restoration Demonstration	LA-03A	OTHER	6		N/A	N/A	COASTWIDE		2003	$869,357	This project will enable the Louisiana Department of Wildlife and Fisheries to establish an economic incentive program to trap and control nutria, which are contributing to coastal wetland loss, by promoting the consumption of nutria meat.	COASTWIDE
CWPPRA	Coastwide Nutria Control Program	LA-03B	MM	11	NRCS	N/A	N/A	COASTWIDE	14963	N/A	$68,738,156	Project goal is to harvest approximately 400,000 nutria tails annually. Damage inflicted by nutria is estimated to be reduced 25 to 49%, and damaged areas to reduce by 25,000 to 49,000 acres.	COASTWIDE
CWPPRA	Coastwide Planting	LA-39	VP	20	NRCS	N/A	N/A	COASTWIDE	779	Pending	$11,611,059	The goals of this project are to facilitate a consistent and responsive planting effort in coastal Louisiana that is flexible enough to routinely plant on a large scale and be able to rapidly respond to "hot spots" following storms or other damaging events.	COASTWIDE
ENERGY BILL CIAP	Coastal Forest Conservation Initiative	LA-13	PP, OTHER		BOEMRE	N/A	N/A	COASTWIDE		Pending	$16,167,036	A program to preserve existing coastal forest via purchase of fee title or conservation servitudes from willing land owners.	COASTWIDE
LOUISIANA COASTAL AREA	LCA Beneficial Use Feasibility Study	LA-19	DM		USACE	N/A	N/A	COASTWIDE		Pending	$100,000,000	This Feasibility Study will examine increased beneficial use of dredged material from Federally authorized navigation channels.	COASTWIDE
STATE	NRCS Vegetative Planting		VP			N/A	N/A	COASTWIDE	609	N/A	$399,858	This is a coastal vegetative planting program that is implemented annually and involves the installation of vegetative plantings in selected areas where vegetation is needed.	COASTWIDE
STATE	NRCS Biomass Production Program		VP			N/A	N/A	COASTWIDE		N/A	$1,552,100	This multi-year cooperative agreement will study productivity of endemic wetland plants, with the goal of identifying specific environmental conditions for maximum growth of a number of varieties (i.e., cultivars) within four plant species. The information obtained will facilitate matching plant species and varieties to expected environmental conditions at restoration sites, thereby increasing the likelihood of successful revegetation efforts.	COASTWIDE

Notes:

Program: CWPPRA=Coastal Wetlands Planning, Protection and Restoration Act; State=Restoration projects funded primarily by the State of Louisiana; SECTION 204/1135= Water Resource Development Act Sections 204 and 1135 beneficial use of dredged material projects; WRDA=Water Resources Development Act; LCA=Louisiana Coastal Area; FEMA= Federal Emergency Managment Agency funded projects; CIAP 2007= Coastal Impact Assistance Program; Surplus 07, Surplus 08, Surplus 09=State surplus-funded projects; Other=funded by programs not otherwise listed.

Agency/Sponsor: BOEMRE=Bureau or Ocean Energy Management, Regulation, and Enforcement; EPA=Environmental Protection Agency; FEMA=Federal Emergency Management Agency; HUD=Housing and Urban Development; NMFS=National Marine Fisheries Service; NRCS=Natural Resources Conservation Service; NWRC=National Wetlands Research Center; USFWS=U.S. Fish and Wildlife Service; USACE=U.S. Army Corps of Engineers; USGS=U.S. Geological

Project Type: BI=Barrier Island; DM=Beneficial Use of Dredged Material; FD=Freshwater Diversion; HP=Hurricane Protection; HR=Hydrologic Restoration; MC=Marsh Creation; MM=Marsh Management; OM=Outfall Management; OTHER=other project types (infrastructure, etc.); PP=Property Purchase; SD=Sediment Diversion; SNT=Sediment and Nutrient Trapping; SP=Shoreline Protection; TE=Terraces; VP=Vegetation Planting.

PPL: Priority Project List (as authorized each year by the CWPPRA Task Force).

APPENDIX B

Three-Year Expenditure Projections

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Table B-1. Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA) Projected Expenditures

Project ID	Project Name	FY 2012	FY 2013	FY 2014	Project Total (FY 2012- FY 2014)
Engineering and Design (P1)					
BA-34	Mississippi River Reintroduction Into Northwest Barataria Basin[1]	$844,641	$633,480	$0	$1,478,121
BA-47	West Point a la Hache Marsh Creation	$80,075	$80,075	$20,019	$180,169
BA-68	Grand Liard Marsh and Ridge Restoration[1]	$1,214,554	$910,916	$0	$2,125,470
BA-76	Cheniere Ronquille Barrier Island Restoration	$167,833	$167,833	$41,958	$377,624
BS-10	Delta Building Diversion North of Fort St. Philip[2]	$117,714	$0	$0	$117,714
BS-12	White Ditch Resurrection and Outfall Management	$608,227	$608,227	$152,057	$1,368,511
BS-15	Bohemia Mississippi River Reintroduction	$69,098	$0	$0	$69,098
BS-16	Caernarvon Outfall Management/Lake Lery Shoreline Protection	$223,527	$0	$0	$223,527
BS-18	Bertrandville Siphon	$89,216	$89,216	$89,216	$267,647
CS-49	Cameron-Creole Freshwater Introduction	$154,560	$0	$0	$154,560
CS-53	Kelso Bayou Marsh Creation and Hydrologic Restoration	$139,142	$139,142	$69,571	$347,856
CS-54	Cameron-Creole Watershed Grand Bayou Marsh Creation	$235,321	$117,661	$0	$352,982
LA-39	Coastwide Planting	$15,539	$7,769	$0	$23,308
ME-24	Southwest Louisiana Gulf Shoreline Nourishment and Protection[2]	$93,641	$93,641	$0	$187,281
ME-31	Freshwater Bayou Marsh Creation	$178,640	$89,320	$0	$267,959
MR-14	Spanish Pass Diversion[2]	$82,500	$82,500	$0	$165,000
MR-15	Venice Ponds Marsh Creation and Crevasses[1]	$20,000	$0	$0	$20,000
PO-29	River Reintroduction into Maurepas Swamp[1]	$1,111,588	$0	$0	$1,111,588
PO-34	Alligator Bend Marsh Restoration and Shoreline Protection	$93,924	$70,443	$0	$164,367
PO-75	LaBranche East Marsh Creation	$190,654	$54,473	$0	$245,127
PO-104	Bayou Bonfouca Marsh Creation	$151,322	$151,322	$75,661	$378,305
TE-49	Avoca Island Diversion and Land Building[2]	$90,500	$0	$0	$90,500
TE-51	Madison Bay Marsh Creation and Terracing	$12,787	$12,787	$12,787	$38,360
TE-66	Central Terrebonne Freshwater Enhancement	$169,623	$84,811	$0	$254,434
TE-72	Lost Lake Marsh Creation and Hydrologic Restoration	$92,789	$92,789	$92,789	$278,368
TE-83	Terrebonne Bay Marsh Creation - Nourishment	$171,039	$171,039	$85,519	$427,597
TV-20	Bayou Sale Shoreline Protection	$116,495	$0	$0	$116,495
Construction (P2)					
BA-04C	West Pointe a la Hache Outfall Management	$151,505	$303,010	$0	$454,515
BA-20-CU4	Jonathan Davis Wetland Protection	$1,131,921	$0	$0	$1,131,921
BA-27-CU1	Barataria Basin Landbridge Shoreline Protection Phase 3- CU7 and CU8	$2,429,853	$0	$0	$2,429,853
BA-38	Pelican Island Pass La Mer to Chaland Pass Restoration[3]	$1,588,316	$794,158	$0	$2,382,474
BA-41	South Shore of the Pen Shoreline Protection and Marsh Creation	$222,190	$0	$0	$222,190
BA-42	Lake Hermitage Marsh Creation	$1,318,405	$1,318,405	$0	$2,636,810
BA-48	Bayou Dupont Marsh and Ridge Creation	$100,000	$4,743,548	$0	$4,843,548
ME-20	South Grand Chenier Hydrologic Restoration	$1,133,715	$1,133,715	$566,857	$2,834,287
ME-21	Grand Lake Shoreline Protection, Tebo Point	$405,000	$0	$0	$405,000
TE-32A	North Lake Boudreaux Basin Freshwater Introduction and Hydrologic Management	$414,251	$818,581	$818,581	$2,051,412
TE-34	Penchant Basin Natural Resources Plan, Increment 1	$252,831	$0	$0	$252,831
TE-39-CU1	South Lake Decade Freshwater Introduction - CU1	$69,835	$0	$0	$69,835
TE-43	GIWW Bank Restoration of Critical Areas in Terrebonne	$521,982	$0	$0	$521,982
TE-48B	Raccoon Island Shoreline Protection/Marsh Creation - Phase B	$84,232	$0	$0	$84,232
TE-52	West Belle Pass Barrier Headland Restoration	$3,148,090	$1,574,045	$0	$4,722,135

Table B-1. Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA) Projected Expenditures

Project ID	Project Name	FY 2012	FY 2013	FY 2014	Project Total (FY 2012- FY 2014)
Demonstration Projects (P1 & P2)					
LA-08[1]	Bioengineered Oyster Reef Demonstration	$47,980	$0	$0	$47,980
LA-09	Sediment Containment System for Marsh Creation Demonstration	$66,553	$16,638	$0	$83,191
LA-16	Non-rock Alternatives to Shoreline Protection Demonstration	$41,913	$204,730	$0	$246,643
TE-53	Enhancement of Barrier Island Vegetation Demonstration	$174,301	$0	$0	$174,301
SubTotal		$19,837,819	$14,564,273	$2,025,015	$36,427,107
Adjustment for Outlying Years[4]		N/A	$5,435,727	$17,974,985	$23,410,712
Total State Expenditures		$19,837,819	$20,000,000	$20,000,000	$59,837,819

Notes:

1- State is the lead agency and has already expended the state cost share for project execution; remaining expenditures will be subsequently reimbursed by Federal partners.

2- Expenditures schedule assumes cost-share agreement issues with the USACE will be addressed prior to beginning of FY 2012.

3- Project will continue to be funded by CWPPRA but may receive supplemental funding from Barrier to Berm funds.

4- Because CWPPRA projects compete for funding annually, CWPPRA expenditures as presented in Appendix C (which include projected expenditures for approved projects only) do not adequately capture likely CWPPRA expenditures in outlying years. The State's estimated CWPPRA expenditures for FY 2012 - FY 2013 are therefore based on prior years' expenditures.

Table B-2. Louisiana WRDA Projected Expenditures

Project ID	Project Name	FY 2012	FY 2013	FY 2014	Project Total (FY 2012 - FY 2014)
Initial LCA Projects					
PO-67	Small Diversion at Hope Canal[1,2]	$2,554,753	$0	$0	$2,554,753
LA-10	Barataria Basin Barrier Shoreline Restoration	$3,650,000	$6,300,000	$3,150,000	$13,100,000
BA-70	Small Bayou Lafourche Reintroduction	$0	$0	$0	$0
BA-71	Medium Diversion with Dedicated Dredging at Myrtle Grove[1]	$1,000,000	$1,400,000	$1,400,000	$3,800,000
Additional LCA Projects					
TE-67	Maintain Land Bridge Between Caillou Lake and Gulf of Mexico	$2,317,051	$1,680,000	$0	$3,997,051
TE-68	Stabilize Gulf Shoreline at Point Au Fer Island	$2,790,246	$2,053,334	$0	$4,843,580
BS-19	Modification of Caernarvon Diversion	$982,023	$868,000	$0	$1,850,023
BA-72	Modification of Davis Pond Diversion	$966,746	$2,695,000	$0	$3,661,746
TE-70	Terrebonne Basin Barrier Shoreline Restoration	$1,400,000	$1,400,000	$0	$2,800,000
PO-68	Small Diversion at Convent / Blind River[3]	$927,500	$927,500	$0	$1,855,000
PO-69	Amite River Diversion Canal Modification	$525,000	$525,000	$0	$1,050,000
BS-20	Medium Diversion at White Ditch	$525,000	$525,000	$0	$1,050,000
TE-71	Convey Atchafalaya River Water to Northern Terrebonne Marshes	$787,500	$787,500	$0	$1,575,000
LA-18	Investigations of Modifications of Existing Structures	$0	$0	$0	$0
LA-19	Beneficial Use of Dredged Material	$350,000	$350,000	$350,000	$1,050,000
Long term, Large Scale Studies					
MR-16	Mississippi River Hydrodynamic and Delta Management Study[3]	$2,200,000	$2,100,000	$3,600,000	$7,900,000
Long term, Large Scale Studies					
	Science and Technology[1]	$3,500,000	$3,500,000	$3,500,000	$10,500,000
	Demonstration Projects	$6,650,000	$0	$0	$6,650,000
Other Projects					
PO-35 (EB)	Violet Diversion[3,4]	$0	$0	$0	$0
PO-58	Donaldsonville to the Gulf[1]	$500,000	$450,000	$439,583	$1,389,583
LA-20	Southwest Coastal Louisiana[1]	$1,500,000	$1,500,000	$1,500,000	$4,500,000
TOTAL Expenditures		**$33,125,819**	**$27,061,334**	**$13,939,583**	**$74,126,736**
Surplus Expenditures for WRDA		**($9,054,753)**	**($6,644,232)**	**($5,339,583)**	**($21,038,568)**
CIAP Expenditures for WRDA		**($2,927,500)**	**($927,500)**	**$0**	**($3,855,000)**
Trust Fund Expenditures for WRDA		**$21,143,566**	**$19,489,602**	**$8,600,000**	**$49,233,168**

Notes:

1- All or a portion of project expenditures are funded through surplus.

2- FY 2012 expenditures are funded by Surplus 08 and are being used to expedite land rights acquisition.

3- All or a portion of project expenditures are funded through CIAP.

4- Project has been incorporated into the MRGO Ecosystem Restoration Features Study under development by the USACE.

Table B-3. Coastal Impact Assistance Program (CIAP) Projected Expenditures[1]

Project ID	Project Name	FY 2012	FY 2013	FY 2014	Project Total (FY 2012- FY 2014)
Restoration Projects					
BA-43 (EB)	**Long Distance Mississippi River Sediment Pipeline[2]**	$7,306,706	$14,613,412	$7,306,706	$29,226,824
BA-45 (EB)	**Caminada Headlands[2]**	$181,000	$24,614,250	$8,144,698	$32,939,948
BA-58	**Fringe Marsh Repair**	$1,150,000	$1,150,000	$0	$2,300,000
BS-13 (EB)	**Bayou Lamoque Floodgate Removal**	$925,605	$296,688	$0	$1,222,293
CS-35 (EB)	**Marsh Creation via Beneficial Use (Phase 1) (CIAP)**	$0	$0	$0	$0
LA-12	**Performance Evaluation**	$811,284	$811,284	$368,866	$1,991,434
LA-13	**Coastal Forest Conservation Initiative**	$14,000,000	$0	$0	$14,000,000
ME-21(EB)	**Grand Lake Shoreline Protection (CIAP)**	$0	$0	$0	$0
LA-41	**Shoreline Protection Emergency Restoration[2]**	$8,000,000	$0	$0	$8,000,000
MR-16	**Mississippi River Strategic Plan[3]**	$2,000,000	$0	$0	$2,000,000
PO-36 (EB)	**Orleans Land Bridge Shoreline Protection and Marsh Creation**	$14,583,584	$10,937,688	$0	$25,521,272
PO-37 (EB)	**Blind River Freshwater Diversion[3]**	$927,500	$927,500	$0	$1,855,000
PO-73	**Central Wetlands Assimilation**	$3,998,383	$3,998,383	$0	$7,996,766
TE-43 (EB)	**Terrebonne (CIAP)**	$0	$0	$0	$0
TV-11B (EB)	**Freshwater Bayou Bank Stabilization (CIAP)**	$8,718,881	$2,179,720	$0	$10,898,601
	Marsh Creation via Beneficial Use	$5,000,000	$6,259,805	$0	$11,259,805
Infrastructure Projects					
AT-05	**Morgan City Industrial Road**	$235,000	$0	$0	$235,000
TV-28	**Port of Iberia Bridge Replacement- Port Road over Commercial Canal[4]**	$0	$500,000	$0	$500,000
TV-30	**Port of Iberia Bridge Replacement- David Duboin Road over Commercial Canal[4]**	$570,000	$0	$0	$570,000
TV-31	**Acadiana Regional Airport**	$602,000	$0	$0	$602,000
CIAP Program Management		$1,000,000	$1,000,000	$1,000,000	$3,000,000
	TOTALS	**$70,009,943**	**$67,288,730**	**$16,820,270**	**$154,118,943**

Notes:

1- Funding shown in table represents State CIAP expenditures only. Some projects have multiple funding sources (see other footnotes).

2- Project to receive supplemental funding from surplus funds.

3- Project authorized through WRDA; CIAP funds used to supplement WRDA expenditures (see Table B-2).

4- Projects will be constructed in sequence, although total construction duration is the same for each project.

Table B-4. CDBG Projected Expenditures

Project ID	Project Name	FY 2012	FY 2013	FY 2014	Project Total (FY 2012 - FY 2014)
BA-82	Lafitte Area Levee Repair	$100,000	$350,000	$0	$450,000
BA-83	Rosethorne Wetland Assimilation Project	$380,000	$573,333	$0	$953,333
BA-84	Bayou Lafourche Freshwater District - Walter S. Lemann Memorial Pump Station Renovations	$639,000	$1,548,000	$387,000	$2,574,000
PO-87	Madison Bulkhead Project	$490,000	$0	$0	$490,000
PO-89	South Slidell Flood Control Plan	$100,000	$1,080,000	$270,000	$1,450,000
TE-78	Cut-Off/Pointe Aux Chene Levee	$1,234,667	$4,586,667	$1,146,667	$6,968,000
TV-52	Franklin Floodgate Sinkable Barge and Pump Station	$2,192,500	$2,192,500	$0	$4,385,000
TV-58	Flood Control Structure at Boston Canal	$324,800	$1,433,244	$2,137,714	$3,895,759
TV-60	Front Ridge Chenier Terracing/Protection	$133,000	$611,167	$1,089,333	$1,833,500
N/A	Community Development Block Grants	$186,803	$186,803	$186,803	$560,408
Total		**$5,780,769**	**$12,561,714**	**$5,217,517**	**$23,560,000**

Table B-5. Berm to Barrier Projected Expenditures

Project ID	Project Name	FY 2012	FY 2013	FY 2014	Project Total (FY 2012 - FY 2014)
BA-38	Pelican Island Pass La Mer to Chaland Pass Restoration[1]	$10,000,000	$0	$0	$10,000,000
BA-40	Riverine Sand Mining/Scofield Island Restoration	$24,666,667	$45,333,333	$0	$70,000,000
	Shell Island Restoration[2]	$1,600,000	$9,400,000	$9,000,000	$20,000,000
Total		**$36,266,667**	**$54,733,333**	**$9,000,000**	**$100,000,000**

Notes:

1- Project to be funded by CWPPRA; $10 million in Berm to Barrier funds reserved to construct a wider footprint if needed.

2- Project to be funded with remaining Berm to Barrier funds.

Table B-6. 2007 Surplus Projected Expenditures

Project ID	Project Name	FY 2012	FY 2013	FY 2014	Project Total (FY 2012 - FY 2014)
BA-43	Mississippi River Long Distance Sediment Pipeline	$7,761,325	$8,992,450	$4,976,225	$21,730,000
BA-75-1	Jean Lafitte Tidal Protection[1]	$4,729,206	$2,614,603	$0	$7,343,809
BA-75-2	Rosethorne Tidal Protection[2]	$333,333	$166,667	$0	$500,000
BA-75-3	Lafitte Tidal Protection	$75,139	$75,139	$0	$150,277
CS-33	Cameron Parish Shoreline	$6,322,237	$22,654,507	$0	$28,976,744
ME-25SF	Marsh Creation Near Freshwater Bayou[3]	$3,728,116	$0	$0	$3,728,116
N/A	East of Harvey Canal	$161,399	$0	$0	$161,399
N/A	Raising of LA 23	$1,200,000	$0	$0	$1,200,000
N/A	St. Charles Parish West Bank	$1,437,500	$1,250,000	$312,500	$3,000,000
TE-72	HNC - (Portion of Morganza to the Gulf)	$40,000,000	$0	$0	$40,000,000
PO-72	Biloxi Marsh	$6,753,462	$9,680,000	$4,840,000	$21,273,462
PROG	S&T	$13,000,000	$6,943,369	$0	$19,943,369
Total		**$85,501,716**	**$52,376,734**	**$10,128,725**	**$148,007,176**

Notes:

1- Project has received $1,000,000 in funds originally allocated to Rosethorne Tidal Protection (BA-75-2).

2- Construction funding for project ($1,000,000) transferred to Jean Lafitte Tidal Protection (BA-75-1).

3- Project merged with CIAP project Freshwater Bayou Bank Stabilization (TV-11B [EB]).

Table B-7. 2008 Surplus Projected Expenditures

Project ID	Project Name	FY 2012	FY 2013	FY 2014	Project Total (FY 2012 - FY 2014)
BA-33	Myrtle Grove	$1,000,000	$1,400,000	$1,400,000	$3,800,000
PO-30	Hope Canal/Maurepas (Landrights and Design)	$2,554,753	$0	$0	$2,554,753
BA-45	Caminada Barrier Shoreline/Elmers	$1,830,000	$20,512,500	$6,837,500	$29,180,000
LA-20	Southwest/Chenier	$1,500,000	$1,294,232	$0	$2,794,232
BA-43	Mississippi River Long Distance Sediment Pipeline	$3,750,000	$7,500,000	$3,734,100	$14,984,100
CS-04	Cameron Creole Levee	$1,000,000	$0	$0	$1,000,000
CS-33	Cameron Parish Shoreline	$2,938,655	$11,754,620	$0	$14,693,275
TE-65	Larose to Golden Meadow	$7,898,913	$3,264,541	$0	$11,163,454
N/A	Emergency Response	$4,344,249	$0	$0	$4,344,249
LA-24.2	Madisonville Bulkhead[1]	$500,000	$0	$0	$500,000
N/A	Intelligent Flood Protection, Monitoring, Warning and Response System (Smart Levee)[1]	$1,987,875	$993,938	$0	$2,981,813
N/A	Beneficial Use	$800,740	$3,000,000	$0	$3,800,740
LA-25.1	Incentive for Innovative Dredging Technology	$258,586	$258,586	$258,586	$775,757
LA-25.2	Beneficial Use/Mitigation Banking	$316,720	$316,720	$316,720	$950,159
LA-25.3	Pre-clearing Beneficial Use Sites	$700,000	$1,000,000	$0	$1,700,000
LA-25.4	Carbon Credits Program	$1,102,267	$0	$0	$1,102,267
LA-25.6	Non-Structural Pilot Program	$573,549	$573,549	$573,549	$1,720,648
TV-11B.1	AGMAC/Freshwater Bayou	$736,000	$0	$0	$736,000
Total		**$33,792,307**	**$51,868,685**	**$13,120,455**	**$98,781,447**

Notes:

1- Funding allocated to Emergency Reserve was utilized for this project.

Table B-8. 2009 Surplus Approved Expenditures

Project ID	Project Name	FY 2012	FY 2013	FY 2014	Project Total (FY 2012 - FY 2014)
AT-13	Atchafalaya Basin Natural Resources Inventory and Assessment	$1,220,631	$0	$0	$1,220,631
BA-75-1	Jean Lafitte Tidal Protection[1]	$5,144,225	$2,572,112	$0	$7,716,337
CS-53	Cameron-Creole Levee	$0	$0	$0	$0
LA-26	Rehabilitation and Repair of State Restoration Projects	$1,940,000	$0	$0	$1,940,000
LA-27	Barrier Island Maintenance Program	$3,390,000	$0	$0	$3,390,000
LA-28	Conservation/Restoration Partnerships	$1,500,000	$880,000	$300,000	$2,680,000
LA-41	Shoreline Protection Emergency Restoration[2]	$2,000,000	$0	$0	$2,000,000
PO-58	Donaldsonville to the Gulf	$500,000	$450,000	$439,583	$1,389,583
PO-74	North Shore Hurricane/Flood Protection Plan	$877,877	$0	$0	$877,877
TV-54	South Central Coastal Plan	$964,600	$0	$0	$964,600
TV-55	Morgan City/St. Mary Flood Protection	$1,780,200	$2,089,800	$0	$3,870,000
TV-56	Four-Mile Canal Storm Surge Reduction Construction	$0	$2,093,333	$4,186,667	$6,280,000
TV-57	Delcambre-Avery Canal Engineering-Design	$646,667	$323,333	$0	$970,000
N/A	Beneficial Use/Beneficial Use of Twin Span Debris	$4,000,000	$805,000	$0	$4,805,000
N/A	Reserve Fund Contingency	$6,199,652	$0	$0	$6,199,652
N/A	Construction of CWPPRA projects	$9,758,330	$0	$0	$9,758,330
N/A	Innovative Programs	$850,215	$850,215	$0	$1,700,429
N/A	University Partnerships	$1,500,000	$430,000	$0	$1,930,000
Total		**$42,272,396**	**$10,493,794**	**$4,926,250**	**$57,692,439**

Notes:

1- Funding was originally allocated to Lafitte Levee Protection (BA-75-4).

2- Funding allocated to Emergency Reserve was utilized for this project.

Table B-9. CWPPRA Monitoring Projected Expenditures

Project ID	Project Name	FY 2012	FY 2013	FY 2014	Project Total (FY 2012 - FY 2014)
BA-02	GIWW (Gulf Intracoastal Waterway) to Clovelly Hydrologic Restoration	$39,073	$43,736	$38,275	$121,084
BA-03c	Naomi Outfall Management	$37,865	$18,419	$0	$56,284
BA-04	West Point a la Hache	$20,744	$42,525	$18,281	
BA-20	Jonathan Davis Wetland Protection	$9,709	$0	$14,262	$23,971
BA-23	Barataria Waterway Shoreline Protection - West	$16,505	$0	$0	
BA-27	Barataria Landbridge Shoreline Protection (Phases 1 and 2)	$0	$0	$0	$0
BA-27c	Barataria Landbridge Shoreline Protection (Phase 3)	$0	$35,000	$17,375	$52,375
BA-35	Chaland Pass to Grand Bayou	$7,739	$16,505	$0	$24,244
BA-38	Barataria Barrier Island Complex Project: Pelican Island and Pass La Mer to Chaland Pass Restoration	$7,739	$0	$0	$7,739
BA-39	Mississippi River Sediment Delivery (Bayou Dupont)	$30,752	$0	$0	$30,752
BA-68	Grand Liard Marsh and Ridge Restoration	$11,728	$0	$0	$11,728
BS-03a	Caernarvon Diversion Outfall Management	$16,505	$0	$0	$16,505
BS-11	Delta Management at Fort St. Philip	$10,000	$16,934	$0	$26,934
CS-09	Brown Lake Hydrologic Restoration	$0	$0	$0	$0
CS-11b	Sweet Lake/Willow Lake Hydrologic Restoration	$0	$0	$0	$0
CS-17	Cameron Creole Plugs	$0	$0	$0	$0
CS-18	Sabine National Wildlife Refuge Erosion Protection	$0	$0	$0	$0
CS-20	East Mud Lake Marsh Management	$75,166	$60,506	$75,983	$211,655
CS-21	Highway 384 Hydrologic Restoration	$0	$0	$0	$0
CS-22	Clear Marais Bank Protection	$0	$0	$0	$0
CS-23	Replace Sabine Refuge Water Control Structures at Headquarters Canal, West Cove Canal, and Hog Island Gully	$0	$0	$24,500	$24,500
CS-24	Perry Ridge Shore Protection	$0	$9,600	$5,478	$15,078
CS-27	Black Bayou Hydrologic Restoration	$11,568	$13,577	$31,100	$56,245
CS-28	Sabine Refuge Marsh Creation, Cycles 1-3	$6,500	$0	$0	$6,500
CS-30	GIWW - Perry Ridge West Bank Stabilization	$0	$0	$0	$0
CS-31	Holly Beach Sand Management	$6,500	$0	$0	$6,500
LA-03b	Coastwide Nutria Control Program	$2,000	$2,000	$2,000	$6,000
ME-04	Freshwater Bayou Wetland Protection	$0	$0	$0	$0
ME-09	Cameron Prairie National Wildlife Refuge Shoreline Protection	$0	$0	$0	$0
ME-11	Humble Canal Hydrologic Restoration	$11,568	$13,577	$15,152	$40,297
ME-13	Freshwater Bayou Bank Stabilization	$0	$0	$0	$0
ME-14	Pecan Island Terracing	$0	$0	$0	$0
ME-19	Grand-White Lakes Landbridge Protection	$0	$12,451	$0	$12,451
MR-03	West Bay Sediment Diversion	$2,818	$146,660	$5,988	$155,466
MR-06	Channel Armor Gap Crevasse	$0	$0	$0	$0
MR-09	Delta-Wide Crevasses	$116,437	$16,934	$0	$133,371
PO-06	Fritchie Marsh Restoration	$16,505	$0	$7,500	$24,005
PO-16	Bayou Sauvage National Wildlife Refuge Hydrologic Restoration, Phase 1	$0	$6,000	$17,375	$23,375
PO-17	Bayou LaBranche Wetland Creation	$16,505	$7,203	$0	$23,708
PO-18	Bayou Sauvage National Wildlife Refuge Hydrologic Restoration, Phase 2	$0	$6,000	$17,375	$23,375
PO-22	Bayou Chevee Shoreline Protection	$0	$16,934	$20,437	$37,371
PO-24	Hopedale Hydrologic Restoration	$17,249	$17,766	$35,305	$70,320
TE-22	Point Au Fer Canal Plugs	$4,917	$0	$0	$4,917
TE-23	West Belle Pass Headland Restoration	$0	$7,155	$0	$7,155
TE-26	Lake Chapeau Sediment Input and Hydrologic Restoration, Point Au Fer Island	$62,589	$26,656	$30,427	$119,672
TE-28	Brady Canal Hydrologic Restoration	$97,664	$21,343	$21,898	$140,905
TE-44	North Lake Mechant Landbridge Restoration	$0	$0	$0	$0
TE-45	Terrebonne Bay Shore Protection Demonstration	$42,689	$35,869	$43,343	$121,901
TE-48	Raccoon Island Shoreline Protection/Marsh Creation	$79,020	$0	$0	$79,020
TE-50	Whiskey Island Back Barrier Marsh Creation	$12,357	$0	$97,138	$109,495
TE-52	West Belle Pass Barrier Headland Restoration	$15,041	$11,832	$13,271	$40,144
TV-03	Vermilion River Cutoff Bank Protection	$6,317	$0	$0	$6,317
TV-04	Cote Blanche Hydrologic Restoration	$29,988	$24,716	$18,389	$73,093
TV-09	Boston Canal/Vermillion Bay Bank Restoration	$0	$0	$24,500	$24,500
TV-12	Little Vermilion Bay Sediment Trapping	$0	$0	$0	$0
TV-13a	Oaks/Avery Canal Hydrologic Restoration, Increment 1	$18,819	$0	$0	$18,819
TV-14	Marsh Island Hydrologic Restoration	$12,385	$15,152	$13,577	$41,114
TV-17	Lake Portage Land Bridge	$0	$0	$0	$0
TV-18	Four Mile Canal Terracing and Sediment Trapping	$15,152	$0	$0	$15,152
CRMS	Coastwide Reference Monitoring System (CRMS) - Wetlands	$8,000,000	$8,000,000	$8,000,000	$24,000,000
	Total	$8,888,112	$8,645,050	$8,608,929	$26,142,091
	State 15% Cost Share	**$1,333,217**	**$1,296,758**	**$1,291,339**	**$3,921,314**

Table B-10. Projected Expenditures for Monitoring of State Only Projects
(amounts shown are 100% state)

Project ID	Project Name	FY 2012	FY 2013	FY 2014	Project Total (FY 2012 - FY 2014)
BA-04	West Point a la Hache Siphon	$75,000	$75,000	$30,000	$180,000
CS-02	Rycade Canal	$25,000	$25,000	$5,000	$55,000
	Total	**$100,000**	**$100,000**	**$35,000**	**$235,000**

Table B-11. Projected Expenditures for Monitoring of WRDA Projects
(amounts shown are 100% state; the cost share is 75% federal:25% state)

Project ID	Project Name	FY 2012	FY 2013	FY 2014	Project Total (FY 2012 - FY 2014)
BA-01	Davis Pond Freshwater Diversion	$184,665	$193,898	$285,129	$663,692
BS-08	Caernarvon Freshwater Diversion	$147,836	$155,228	$172,119	$475,183
	Total State Share	**$332,501**	**$349,126**	**$457,248**	**$1,138,875**

Table B-12. CWPPRA Projects with O&M Budget Project Expenditures
(amounts shown are 100% State; the cost share is 85% federal:15% State)

Project No.	Project Name	PPL-Progr	Project Phase	Federal Sponsor	FY 2012	FY 2013	FY 2014	Project Total (FY 2012 - FY 2014)
AT-02	Atchafalaya Sediment Delivery	2	O&M	NMFS	$49,650	$422	$435	$50,507
AT-03	Big Island Mining	2	O&M	NMFS	$49,650	$422	$435	$50,507
BA-02	GIWW (Gulf Intracoastal Waterway) to Clovelly Hydrologic Restoration	1	O&M	NRCS	$4,326	$4,356	$4,400	$13,082
BA-03c	Naomi Outfall Management	5	O&M	NRCS	$964	$978	$991	$2,933
BA-04c	West Point a la Hache Outfall Management	3	E&D	NRCS	Not Constructed	Not Constructed	$969	$969
BA-19	Barataria Bay Waterway Wetland Restoration	1	O&M	USACE	None	None	None	None
BA-20	Jonathan Davis Wetland Protection	2	O&M	NRCS	$570	$585	$600	$1,754
BA-23	Barataria Bay Waterway West Side Shoreline Protection	4	O&M	NRCS	$1,719	$1,764	$1,810	$5,292
BA-26	Barataria Bay Waterway East Side Shoreline Protection	6	O&M	NRCS	$563	$578	$593	$1,733
BA-27	Barataria Basin Landbridge Shoreline Protection, Phases 1 and 2	7	E&D, C, O&M	NRCS	$598	$4,589	$626	$5,813
BA-27c	Barataria Basin Landbridge Shoreline Protection, Phase 3	9	E&D, C, O&M	NRCS	$598	$4,003	$626	$5,228
BA-27d	Barataria Basin Landbridge Shoreline Protection Phase 4	11	O&M	NRCS	$598	$5,488	$626	$6,713
BA-30	East/West Grand Terre Islands Restoration	9	O&M	NMFS	None	None	None	None
BA-34	Mississippi River Reintroduction into Northwest Barataria Basin	10	E&D	EPA	Not Constructed	Not Constructed	Not Constructed	Not Constructed
BA-35	Pass Chaland to Grand Bayou Pass Barrier Shoreline Restoration	11	O&M	NMFS	$1,157	$1,171	$648	$2,976
BA-36	Dedicated Dredging on the Barataria Basin Landbridge	11	O&M	FWS	None	None	None	None
BA-37	Little Lake Shoreline Protection/ Dedicated Dredging Near Round Lake	11	O&M	NMFS	$9,289	$1,068	$12,464	$22,821
BA-38	Pelican Island and Pass La Mer to Chaland Pass Restoration	11	E&D, O&M	NMFS	$1,023	$493	$506	$2,021
BA-39	Mississippi River Sediment Delivery System	12	O&M	EPA	$1,486	$959	$1,684	$4,129
BA-40	Riverine Sand Mining/Scofield Island Restoration	14	E&D	NMFS	Not Constructed	$63,760	$617	$64,377
BA-41	South Shore of the Pen Shoreline Protection and Marsh Creation	14	C	NRCS	$8,100	$8,117	$270,585	$286,802
BA-42	Lake Hermitage Marsh Creation	15	E&D	FWS	Not Constructed	Not Constructed	$750	$750
BA-47	West Point a la Hache Outfall Management	17	E&D	NRCS	Not Constructed	Not Constructed	$750	$750
BA-48	Bayou Dupont Marsh and Ridge Creation	17	E&D	NMFS	Not Constructed	Not Constructed	$21,928	$21,928
BA-68	Grand Liard Marsh and Ridge Restoration	18	E&D	NMFS	Not Constructed	Not Constructed	$1,500	$1,500
BA-76	Cheniere Ronquille Barrier Island Restoration	19	E&D	NMFS	Not Constructed	Not Constructed	$1,500	$1,500
BS-03a	Caernarvon Diversion Outfall Management	2	O&M	NRCS	$9,540	$9,555	$9,572	$28,667
BS-10	Delta Building Diversion North of Fort St. Phillip	10	E&D	USACE	Not Constructed	Not Constructed	Not Constructed	Not Constructed
BS-11	Delta Management at Fort St. Philip	10	O&M	FWS	$749	$768	$788	$2,304
BS-12	Whites Ditch Diversion Restoration and Outfall Management	14	E&D	NRCS	Not Constructed	Not Constructed	Not Constructed	Not Constructed
BS-13	Bayou Lamoque Freshwater Diversion	15	E&D	USACE	Not Constructed	Not Constructed	$750	$750
BS-15	Bohemia Mississippi River Reintroduction	17	E&D	EPA	Not Constructed	Not Constructed	Not Constructed	Not Constructed
BS-16	Caernarvon Outfall Management/Lake Lery Shoreline Restoration	17	E&D	FWS	Not Constructed	Not Constructed	Not Constructed	Not Constructed
BS-18	Bertrandville Siphon	18	E&D	EPA	Not Constructed	Not Constructed	Not Constructed	Not Constructed
CS-04A	Cameron-Creole Maintenance (See Note 4)	3	O&M	NRCS	$1,000,000	$300,940	$969	$1,301,909
CS-11B	Sweet Lake/Willow Lake Hydrologic Restoration	5	O&M	NRCS	$913	$940	$969	$2,822
CS-17	Cameron Creole Plugs	1	O&M	FWS	$12,163	$940	$969	$14,072
CS-18	Sabine National Wildlife Refuge Erosion Protection	1	O&M	FWS	$913	$940	$969	$2,822
CS-20	East Mud Lake Marsh Management	2	O&M	NRCS	$1,888	$1,915	$1,944	$5,747
CS-21	Highway 384 Hydrologic Restoration	2	O&M	NRCS	$4,933	$3,160	$2,739	$10,832
CS-22	Clear Marais Bank Protection	2	O&M	USACE	$913	$940	$969	$2,822
CS-23	Replace Sabine Refuge Water Control Structures at Headquarters Canal, West Cove Canal, and	3	O&M	FWS	$184,643	$940	$969	$186,552
CS-24	Perry Ridge Shore Protection	4	O&M	NRCS	$913	$940	$969	$2,822
CS-27	Black Bayou Hydrologic Restoration	6	O&M	NMFS	$1,513	$1,594	$1,569	$4,676
CS-28-1	Sabine Refuge Marsh Creation, Increment 1	8	O&M	USACE	None	None	None	None
CS-28-2	Sabine Refuge Marsh Creation, Increment 2	8	O&M	USACE	None	None	None	None
CS-28-3	Sabine Refuge Marsh Creation, Increment 3	8	E&D	USACE	None	None	None	None
CS-28-4	Sabine Refuge Marsh Creation, Increment 4	8	E&D	USACE	None	None	None	None
CS-28-5	Sabine Refuge Marsh Creation, Increment 5	8	E&D	USACE	None	None	None	None

Table B-12. CWPPRA Projects with O&M Budget Project Expenditures
(amounts shown are 100% State; the cost share is 85% federal:15% State)

Project No.	Project Name	PPL-Progr	Project Phase	Federal Sponsor	FY 2012	FY 2013	FY 2014	Project Total (FY 2012 - FY 2014)
CS-29	Black Bayou Culverts Hydrologic Restoration	9	O&M	NRCS	$913	$940	$969	$2,822
CS-30	GIWW - Perry Ridge West Bank Stabilization	9	O&M	NRCS	$913	$940	$969	$2,822
CS-31	Holly Beach Sand Management (See Note 6)	11	O&M	NRCS	$394,026	$940	$969	$395,935
CS-32	East Sabine Lake Hydrologic Restoration	10	O&M	FWS	$23,413	$940	$969	$25,322
CS-49	Cameron-Creole Freshwater Introduction - Vegetative Plantings	18	E&D, O&M	NRCS	$6,913	$67,888	$969	$75,769
LA-03b	Coastwide Nutria Control Program	11	O&M	NRCS	$511,936	$513,885	$515,013	$1,540,835
ME-04	Freshwater Bayou Wetland (Phases 1 &2)	2	O&M	NRCS	$37,021	$386,092	$969	$424,082
ME-09	Cameron Prairie National Wildlife Refuge Shoreline Protection	1	O&M	FWS	$913	$940	$969	$2,822
ME-11	Humble Canal Hydrologic Restoration	8	O&M	NRCS	$2,113	$2,140	$2,169	$6,422
ME-13	Freshwater Bayou Bank Stabilization	5	O&M	NRCS	$44,041	$460,972	$969	$505,982
ME-14	Pecan Island Terracing	7	O&M	NMFS	$24,853	$256,300	$969	$282,122
ME-16	Freshwater Introduction South of Highway 82 (See Note 5)	9	O&M	FWS	$0	$940	$969	$1,909
ME-17	Little Pecan Bayou Hydrologic Restoration	9	E&D	NRCS	Not Constructed	Not Constructed	Not Constructed	Not Constructed
ME-18	Rockefeller Refuge Gulf Shoreline Stabilization	10	O&M	NMFS	None	None	None	None
ME-19	Grand-White Lakes Landbridge Protection	10	O&M	FWS	$913	$940	$969	$2,822
ME-20	South Grand Chenier Hydrologic Restoration Project	11	C	FWS	Not Constructed	$3,340	$3,369	$6,709
ME-21a	Grand Lake Shoreline Protection, Tebo Point	11	E&D	USACE	Not Constructed	Not Constructed	Not Constructed	Not Constructed
ME-21b	Grand Lake Shoreline Protection, O&M Only (CIAP)	11	O&M	USACE	$913	$940	$969	$2,822
ME-22	South White Lake Shoreline Protection	12	O&M	USACE	$913	$940	$969	$2,822
ME-23	South Pecan Island Freshwater Introduction	15	E&D	NMFS	Not Constructed	Not Constructed	Not Constructed	Not Constructed
ME-24	Southeast LA Gulf Shoreline Nourishment and Protection	16	E&D	USACE	Not Constructed	Not Constructed	Not Constructed	Not Constructed
ME-31	Freshwater Bayou Marsh Creation	19	E&D	NRCS	Not Constructed	Not Constructed	Not Constructed	Not Constructed
MR-03 (COE)	West Bay Sediment Diversion	1	O&M	USACE	$4,500,000	$750,000	$750,000	$6,000,000
MR-06	Channel Armor Gap Crevasse	3	O&M	USACE	None	None	None	None
MR-09	Delta Wide Crevasses	6	O&M	NMFS	$204,110	$882	$905	$205,897
MR-13	Benny's Bay Diversion	10	E&D	USACE	Not Constructed	Not Constructed	Not Constructed	Not Constructed
MR-14	Spanish Pass Diversion	13	E&D	USACE	Not Constructed	Not Constructed	Not Constructed	Not Constructed
MR-15	Venice Ponds Marsh Creation and Crevasses	15	E&D	EPA	Not Constructed	Not Constructed	Not Constructed	Not Constructed
PO-06	Fritchie Marsh Restoration	2	O&M	NRCS	$569	$584	$599	$1,753
PO-16	Bayou Sauvage National Wildlife Refuge Hydrologic Restoration, Phase 1	1	O&M	FWS	$2,948	$3,024	$3,099	$9,071
PO-17	Bayou LaBranche Wetland Creation	1	O&M	USACE	None	None	None	None
PO-18	Bayou Sauvage National Wildlife Refuge Hydrologic Restoration, Phase 2	2	O&M	FWS	$2,564	$2,631	$2,699	$7,894
PO-19	Mississippi River Gulf Outlet (MRGO) Disposal Area Marsh Protection	3	O&M	USACE	None	None	None	None
PO-22	Bayou Chevee Shoreline Protection	5	O&M	USACE	$0	$555	$0	$555
PO-24	Hopedale Hydrologic Restoration	8	O&M	NMFS	$1,892	$1,941	$1,991	$5,824
PO-27	Chandeleur Islands Marsh Restoration	9	O&M	NMFS	None	None	None	None
PO-29	River Reintroduction into Maurepas Swamp	11	E&D	EPA	Not Constructed	Not Constructed	Not Constructed	Not Constructed
PO-30	Lake Borgne Shoreline Protection	10	O&M	EPA	$1,069,751	$835	$861	$1,071,447
PO-33	Goose Point/Point Platte Marsh Creation	13	O&M	FWS	None	None	None	None
PO-34	Alligator Bend Marsh Restoration and Shoreline Protection	16	E&D	NRCS	Not Constructed	Not Constructed	$750	$750
PO-75	Labranche East Marsh Creation	19	E&D	NRCS	Not Constructed	Not Constructed	Not Constructed	Not Constructed
TE-20	Isles Dernieres Restoration East Island	1	O&M	EPA	None	None	None	None
TE-22	Point au Fer Canal Plugs	2	O&M	NMFS	$347,054	$1,308	$1,351	$349,712
TE-23 (COE)	West Belle Pass Headland Restoration	2	O&M	USACE	$0	$0	$0	$0
TE-24	Isles Dernieres Restoration Trinity Island	2	O&M	EPA	None	None	None	None
TE-25	East Timbalier Island Sediment Restoration, Phase 1	3	O&M	NMFS	None	None	None	None
TE-26	Lake Chapeau Sediment Input and Hydrologic Restoration, Point Au Fer Island	3	O&M	NMFS	$1,278	$1,316	$1,356	$3,950
TE-27	Whiskey Island Restoration	3	O&M	EPA	None	None	None	None
TE-28	Brady Canal Hydrologic Rest. (See Note 5)	3	O&M	NRCS	$0	$14,298	$4,731	$19,029

Table B-12. CWPPRA Projects with O&M Budget Project Expenditures
(amounts shown are 100% State; the cost share is 85% federal:15% State)

Project No.	Project Name	PPL-Progr	Project Phase	Federal Sponsor	FY 2012	FY 2013	FY 2014	Project Total (FY 2012 - FY 2014)
TE-30	East Timbalier Island Sediment Restoration, Phase 2	4	O&M	NMFS	None	None	None	None
TE-32a	North Lake Boudreaux Basin Freshwater Introduction & Hydrologic Management	6	E&D	FWS	Not Constructed	$16,639	$15,461	$32,100
TE-34	Penchant Basin Natural Resources Plan Increment 1	6	C	NRCS	$886	$8,863	$940	$10,689
TE-37	New Cut Dune and Marsh Restoration	9	O&M	EPA	None	None	None	None
TE-39	South Lake Decade Freshwater Introduction	9	C	NRCS	$750	$750	$750	$2,250
TE-40	Timbalier Island Dune and Marsh Restoration	9	O&M	EPA	None	None	None	None
TE-43	GIWW Bank Restoration of Critical Areas in Terrebonne	10	C	NRCS	$0	$0	$0	$0
TE-44	North Lake Mechant Landbridge Restoration	10	O&M	FWS	$750	$750	$750	$2,250
TE-46	West Lake Boudreaux Shoreline Protection and Marsh Creation	11	O&M	FWS	$694	$716	$238,073	$239,483
TE-47	Ship Shoal Whiskey West Flank Restoration	11	E&D	EPA	Not Constructed	Not Constructed	Not Constructed	Not Constructed
TE-48	Raccoon Island Shoreline Protection/Marsh Creation	11	E&D, O&M	NRCS	$900	$386	$939	$2,225
TE-49	Avoca Island Diversion and Land Building	12	E&D	USACE	Not Constructed	Not Constructed	Not Constructed	Not Constructed
TE-50	Whiskey Island Back Barrier Marsh Creation	13	O&M	EPA	None	None	None	None
TE-51	Madison Bay Marsh Creation and Terracing	16	E&D	NMFS	Not Constructed	Not Constructed	Not Constructed	Not Constructed
TE-52	West Belle Pass Barrier Headland Restoration	16	C	NMFS	$0	$13,965	$13,979	$27,944
TE-66	Central Terrebonne Freshwater Enhancement	18	E&D	NRCS	Not Constructed	Not Constructed	Not Constructed	Not Constructed
TE-72	Lost Lake Marsh Creation and Hydrologic Restoration	19	E&D	FWS	Not Constructed	Not Constructed	Not Constructed	Not Constructed
TV-03	Vermilion River Cutoff Bank Protection	1	O&M	USACE	$913	$940	$969	$2,822
TV-04	Cote Blanche Hydrologic Restoration	3	O&M	NRCS	$37,513	$940	$969	$39,422
TV-09	Boston Canal/Vermilion Bay Bank Protection	2	O&M	NRCS	$1,513	$1,540	$1,569	$4,622
TV-11b	Freshwater Bayou Bank Stabilization - Belle Island Canal to Lock	9	E&D	USACE	Not Constructed	Not Constructed	Not Constructed	Not Constructed
TV-12	Little Vermilion Bay Sediment Trapping	5	O&M	NMFS	$23,738	$286,259	$969	$310,966
TV-13a	Oaks/Avery Canal Hydrologic Restoration, Increment 1	6	O&M	NRCS	$32,877	$940	$969	$34,786
TV-14	Marsh Island Hydrologic Restoration	6	O&M	USACE	$913	$940	$969	$2,822
TV-15	Sediment Trapping at "The Jaws"	6	O&M	NMFS	$913	$940	$969	$2,822
TV-17	Lake Portage Land Bridge	8	O&M	NRCS	$913	$940	$969	$2,822
TV-18	Four Mile Canal Terracing and Sediment Trapping	9	O&M	NMFS	$59,423	$732,322	$969	$792,714
TV-19	Weeks Bay Marsh Creation and Shore Protection/Commercial Canal Freshwater	9	E&D	USACE	Not Constructed	Not Constructed	Not Constructed	Not Constructed
TV-20	Bayou Sale Shoreline Protection	13	E&D	NRCS	Not Constructed	Not Constructed	Not Constructed	Not Constructed
TV-21	East Marsh Island Marsh Creation	14	C	EPA/NRCS	$99,861	$940	$74,731	$175,532
Total				**Total State Share**	**$8,791,888**	**$3,967,556**	**$2,005,604**	**$14,765,048**

Notes:

1. Table shows all approved CWPPRA projects. Demonstration and vegetative planting projects are not shown as they have no O&M budgets. Other projects without O&M budgets have "None" entered in the budget columns. Projects not scheduled to complete within the next two years have "Not Constructed" entered in the budget columns.
2. State share is based on CWPPRA cost share of 85% Federal/15% State.
3. Projects that the USACE is responsible for O&M are indicated by (USACE) after the project number.
4. Cameron-Creole (CS-04a) budget for FY12 will be paid with State surplus funds.
5. Brady Canal (TE-28) & FW Intro South of Hwy 82 (ME-16) budgets for FY12 will be paid by FEMA through approved PWs.
6. Holly Beach (CS-31) budget for FY 12 will be paid with FY11 Annual Plan Emergency funds.

Table B-13. O&M Projected Expenditures for CWPPRA Projects without Federal Cost (all amounts shown are 100% state)

Project ID	Project Name	FY 2012	FY 2013	FY 2014	Project Total (FY 2012 - FY 2014)
PO-17	Bayou LaBranche Wetland Creation	$1,250	$1,250	$1,250	$3,750
TE-20	Isles Dernieres Restoration East Island	$2,500	$2,500	$2,500	$7,500
TE-24	Isles Dernieres Restoration Trinity Island	$2,500	$2,500	$2,500	$7,500
TE-27	Whiskey Island Restoration	$2,500	$2,500	$2,500	$7,500
TE-25	East Timbalier Island Sediment Restoration, Phase 1	$2,500	$2,500	$2,500	$7,500
TE-30	East Timbalier Island Sediment Restoration, Phase 2	$2,500	$2,500	$2,500	$7,500
PO-27	Chandeleur Islands Marsh Restoration	$1,250	$1,250	$1,250	$3,750
TE-37	New Cut Dune and Marsh Restoration	$2,500	$2,500	$2,500	$7,500
TE-40	Timbalier Island Dune and Marsh Restoration	$2,500	$2,500	$2,500	$7,500
TE-50	Whiskey Island Back Barrier Marsh Creation	$2,500	$2,500	$2,500	$7,500
	Total State Share	**$22,500**	**$22,500**	**$22,500**	**$67,500**

Table B-14. Projected Expenditures for Maintenance for State Only Projects (all amounts shown are 100% state)

Project ID	Project Name	FY 2012	FY 2013	FY 2014	Project Total (FY 2012 - FY 2014)
ME-01	Pecan Island	None	$10,000	None	$10,000
PO-01	Violet Siphon	$200,000	$0	$0	$0
TV-4355NP1	Quintana Canal	$140,500	$1,756,250	None	$1,896,750
	Maintenance Surveys	$100,000	$100,000	$100,000	$300,000
	GPS Network (continued development & maintenance)	$100,000	$100,000	$100,000	$300,000
	Total State Share	**$540,500**	**$1,966,250**	**$200,000**	**$2,506,750**

Table B-15. Projected Expenditures for Structural Operations/Inspections of State Project (all amounts shown are 100% state)

Project ID	Project Name	FY 2012	FY 2013	FY 2014	Project Total (FY 2012 - FY 2014)
CS-02	Rycade Canal Marsh Management	$15,000	$15,000	$15,000	$45,000
PO-01	Violet Siphon	$36,000	$36,000	$36,000	$108,000
PO-36	Orleans Landbridge	$0	$0	$5,000	$5,000
PO-72	Biloxi Marsh	$0	$0	$5,000	$5,000
TE-03	Bayou LaCache Wetlands	$75,000	$75,000	$75,000	$225,000
FTL-01	Fort Livingston (Navigation Aids Inspection & Maintenance	$4,000	$4,000	$4,000	$12,000
TV-13b	Oaks Avery Structures (Navigation Aids Inspection & Maintenance	$4,000	$4,000	$4,000	$12,000
	Periodic Inspection of Projects	$50,000	$50,000	$50,000	$150,000
	Total State Share	**$184,000**	**$184,000**	**$194,000**	**$562,000**

Table B-16. Projected Expenditures for O&M of WRDA Projects (all amounts shown are 100% state)

Project ID	Project Name	FY 2012	FY 2013	FY 2014	Project Total (FY 2012 - FY 2014)
BA-01	Davis Pond Freshwater Diversion	$729,740	$780,820	$835,480	$2,346,040
BS-08	Caernarvon Freshwater Diversion	$1,418,820	$1,518,150	$1,624,400	$4,561,370
	Total State Share	**$2,148,560**	**$2,298,970**	**$2,459,880**	**$6,907,410**

APPENDIX C

Barrier Island Status Report

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BARRIER ISLAND STATUS REPORT

In compliance with Act 297 of the 2006 Regular Legislative Session, the Office of Coastal Protection and Restoration (OCPR) is providing this barrier island status report as part of the Annual Plan document, which will be submitted to each member of the Louisiana Legislature. The act requires that the report indicate the condition of all barrier islands, provide the status of all barrier island stabilization and preservation projects under construction, and outline future plans for restoration and maintenance of the barrier islands and coastal passes. Because the Annual Plan provides information about all coastal restoration projects in Louisiana (including location, status, features, acres benefited, cost, and funding source), it is appropriate to include a report on the status of the barrier islands.

INTRODUCTION

The recent hurricane seasons of 2005 and 2008 have clearly demonstrated the advantages of robust barrier islands and a well-managed coastline in terms of shoreline resilience and hurricane damage reduction. These events have also highlighted the ecological concerns related to the massive loss of coastal wetland systems (Ewing and Pope, 2006[1]). These coastal landscapes can provide a significant and potentially sustainable buffer from wind and wave action as well as storm surges generated by tropical storms and hurricanes. In addition, barrier shorelines are unique habitats that represent the foundation for complex and productive coastal ecosystems. Because barrier islands migrate and deteriorate over time, restoration of these habitats will require regular inputs of sand pumped from offshore areas. Such maintenance events would be the most cost-effective way to ensure the longevity of the barrier islands.

The Barrier Island Comprehensive Monitoring (BICM) Program provides information on the status and trends of the Louisiana shoreline. Additionally, the Barrier Island Maintenance Program (BIMP) provides a framework for prioritizing planning, design, and construction of barrier island maintenance projects.

BARRIER ISLAND COMPREHENSIVE MONITORING (BICM) PROGRAM

The development of a comprehensive program to evaluate the State's barrier shoreline was initiated by a Louisiana Department of Natural Resources (LDNR) workgroup in 2002 (now headed by OCPR). This workgroup developed a monitoring framework to assess shoreline processes and resulting habitats, and the changes in these ecosystems over time. The initial plan was then reviewed in 2004 by the Louisiana Shoreline Science Restoration Team (SSRT) working under the Louisiana Coastal Area (LCA) program. The LCA study recommended the establishment of a coordinated System-wide Assessment and Monitoring Program (SWAMP), which would integrate the environmental monitoring of wetlands (Coastwide Reference Monitoring System, or CRMS-*Wetlands*), rivers and inshore waters (CRMS-*Waters*), near-shore waters, and barrier islands (BICM). The BICM program is currently being conducted through the OCPR Louisiana Coastal Engineering and Science (LACES) office and is funded by the LCA Science and Technology (S&T) office and through a partnership between the University of New Orleans (UNO) and the U.S. Geological Survey (USGS). Initial goals of the BICM program were to establish baseline conditions for the State's barrier shoreline after hurricanes Katrina and Rita, as well as to refine the methods and products for use in programs other than LCA (e.g., Coastal Wetlands Planning, Protection, and Restoration Act [CWPPRA]; Coastal Impact Assistance Program [CIAP]; BIMP).

The advantage of BICM over CWPPRA project-specific monitoring is the ability to provide long-term data on all of Louisiana's barrier shorelines, instead of just those areas with constructed projects. As a result, a greater amount of long-term data will be available to evaluate constructed projects, facilitate planning and design of future barrier island projects, assist operations and maintenance activities, and determine storm impacts. Because data will be collected for the entire barrier island system concurrently, BICM data will be more consistent, accurate, and complete than other barrier island data collection efforts.

Initial BICM datasets collected include 1) post-storm damage assessment, 2) shoreline position, 3) land/water analysis, 4) topography, 5) bathymetry, 6) habitat composition, and 7) sediment composition. Additionally, these datasets will be compared to historic datasets that will be standardized and provided digitally to user groups for future use. Data collection for all seven BICM components initiated in 2005 was

[1] Ewing, L. and Pope, J., 2006. Viewing the Beach as an Ecosystem? *Shore & Beach*, 74 (1), 2.

completed in 2008. Final datasets and reports are currently available through the LDNR web site.

Post-storm assessment products included an aerial video survey of the entire coastline and photographs of the majority of the shoreline. Photography of particular shoreline locations were then matched with historic photographs to provide time-series datasets for shoreline evaluations and comparisons (Figure 1). These datasets have already proven invaluable in assessment of the impacts of Hurricanes Gustav and Ike in 2008, in the planning of LCA projects currently in the feasibility stage, and in the Deepwater Horizon oil spill of 2010. These photos have also allowed assessment of impacts for documentation of damage claims to FEMA.

Figure 1. Photo comparison of Elmer's Island shoreline in Lafourche Parish, LA immediately after Hurricanes Katrina and Rita in 2005, and approximately 2 years later.

A combination of CRMS-*Wetlands* and UNO photography and Quickbird satellite imagery was collected for the entire Louisiana coast. Shoreline positions using post-storm photography have been developed along with complete 1880s, 1930s, 1990s, and 2004 shorelines. The imagery has been analyzed, and datasets for historic, long-term, short-term, and near-term erosion rates for the entire coastline are available (Figure 2). Additionally, land/water change maps and tables have been developed with the shoreline changes (Figures 3 and 4).

LiDAR data has been collected for all three portions of the coast; the Chandeleur Islands, from Raccoon Island to Sandy Point, and the Chenier Plain from Sabine Pass to the Mermentau River Outlet. Data, grid models, and change models for all coastal areas are complete. USGS has continued to fly LiDAR for the Chandeleur region and has provided an additional four surveys of the area (Figure 5). Additionally, LiDAR was flown by USGS for the Teche and Lafourche Deltaic Regions in early 2008 and again after Hurricane Gustav.

Bathymetry surveying was conducted in both 2006 and 2007. The Chenier plain area and the southern Chandeleur Islands were surveyed to complete the coast-wide coverage areas begun in 2006. Surveys covered from six kilometers (km) offshore to two km bayward of the shoreline. In addition to bathymetry data, USGS collected seismic data along all the offshore lines and did a complete sidescan sonar mosaic of the gulf side of the Chandeleur Islands. Data, grid models, and change models from all field work are finalized (Figures 6 and 7).

Also, habitat analysis of the aerial photography has been completed. Detailed habitat data for all BICM shoreline areas are available for 1996/98, 2002, 2004, and 2005 along with change maps showing habitat differences for all time periods (Figures 8 and 9).

Collection of surficial sediments for sediment budget development was conducted in 2008 and analysis is underway. Sediment characterization analysis, reports, and distribution maps should be completed in 2011. Currently, LDNR is finalizing an agreement with UNO and USGS to complete this effort.

Analysis and final report preparation is ongoing and some data and products will not be available until 2011. Planning and design of the program will continue to refine future data collection, analysis, products, tools, and timelines for future programmatic monitoring.

CIAP funded monitoring of vegetation on some barrier island projects will be used to refine vegetative sampling procedures proposed in the original BICM document. These vegetative sampling procedures will be conducted and analyzed to determine the added value of vegetative sampling within the BICM program, and potential costs of full-scale implementation. Once this analysis is completed, decisions will be made whether to incorporate this additional BICM component.

The next BICM Program data collection will be initiated in 2011. Proposals are currently being finalized to repeat data collection activities along the coast over a four-year period, and then compare and update reports and datasets. Then, by replicating datasets at different time intervals (5, 6, 7, and 8 year intervals), programmatic decisions on final data collection time scales can be selected and the BICM program can be finalized and implemented through future years.

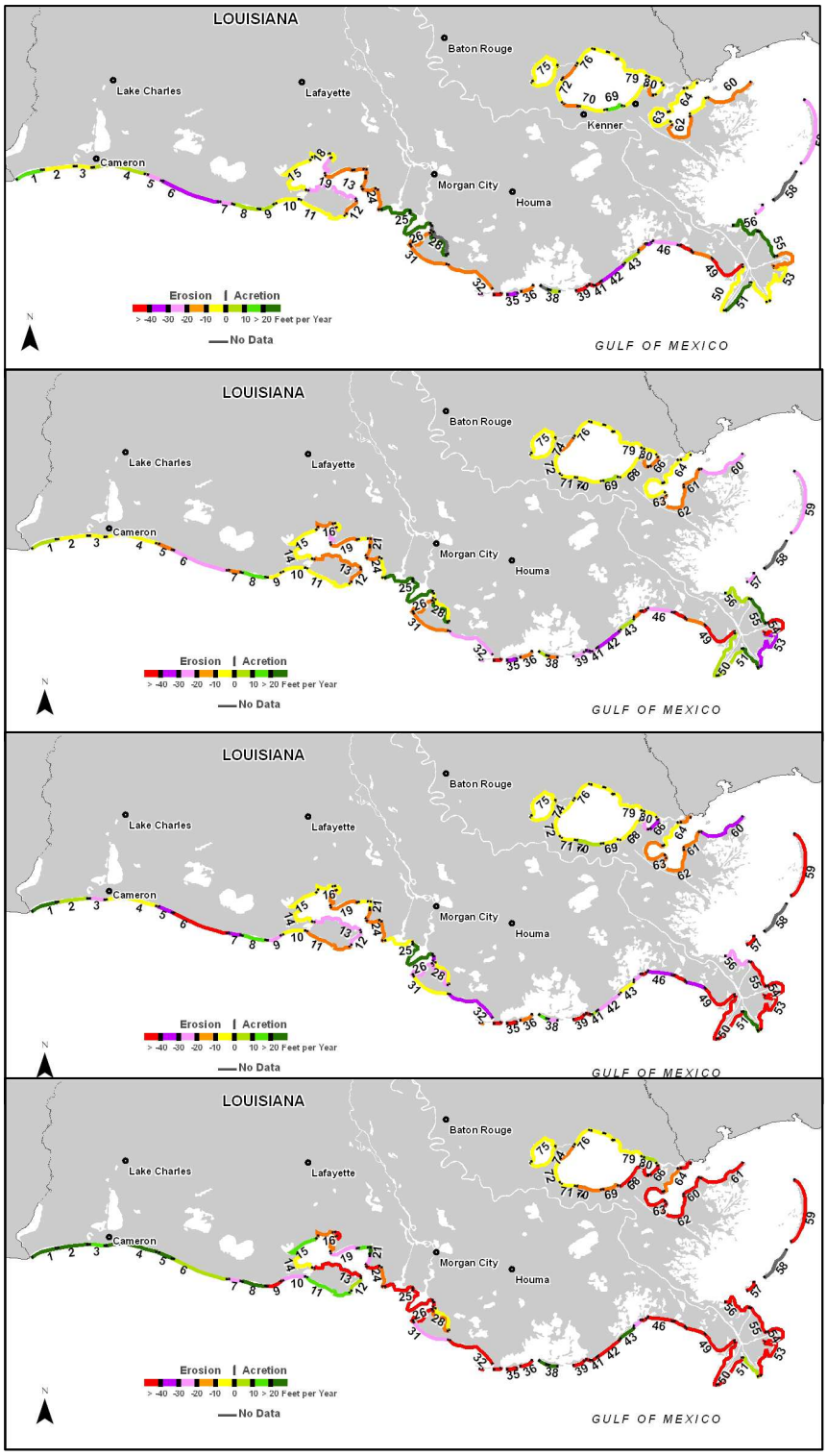


Figure 2. Shoreline erosion rates for sections of the Louisiana coast. A) Historic (1850s-2005), B) Long-term (1920s–2005), C) Short-term (1996-2005), and D) Near-term (2004-2005) (Martinez et al. 2009[2]).

2 Martinez, L., S.O'Brien, M. Bethel, S. Penland, and M.Kulp. 2009. Louisiana barrier island comprehensive monitoring program (BICM) – Volume 2: Shoreline change and barrier island land loss 1800's-2005. Prepared for the La. Department of Natural Resources, Coastal Restoration Division by the Univ. of New Orleans, Pontchartrain Institute for Environmental Sciences. New Orleans, LA 32 pp.

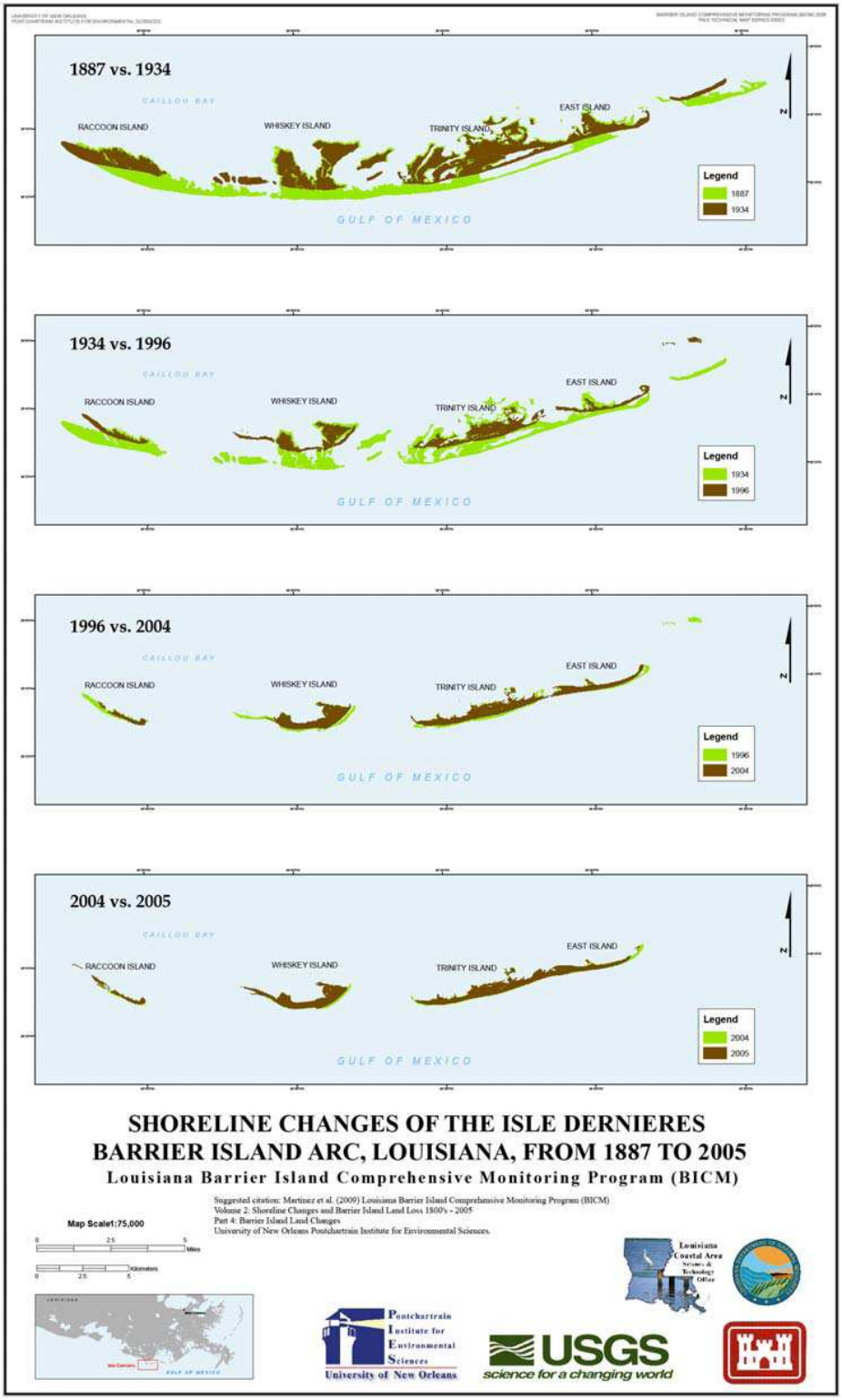


Figure 3. Historical overlays for the Isle Dernieres for 1887 – 2005. (Martinez et al. 2009[2]).

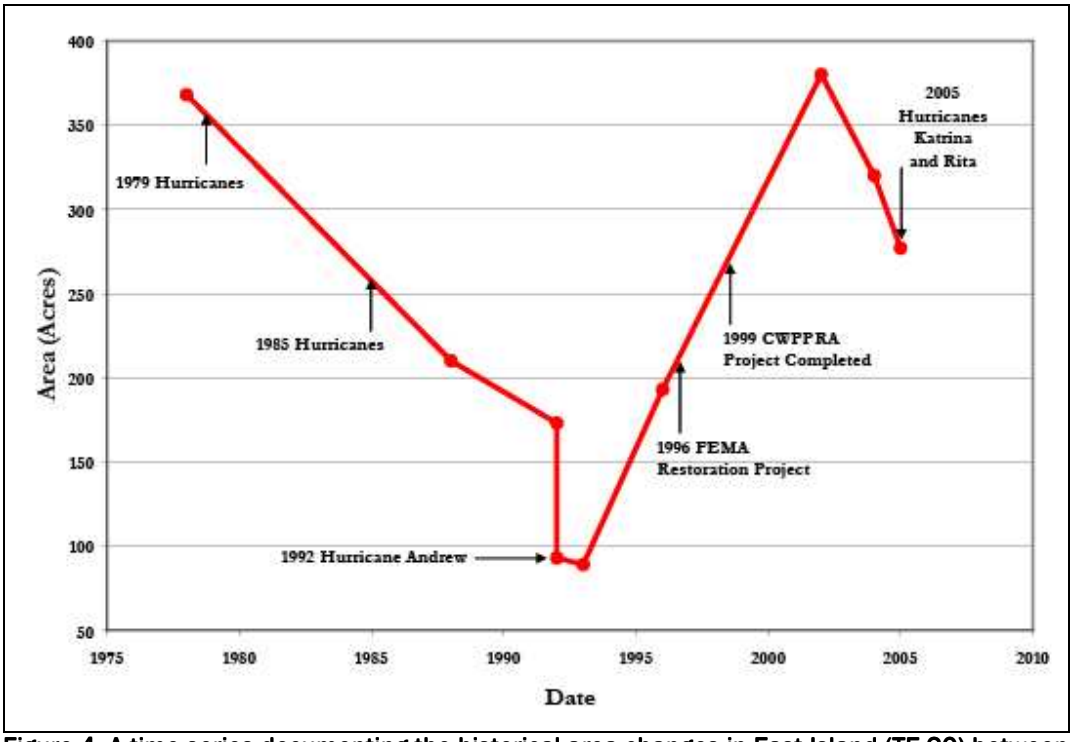


Figure 4. A time-series documenting the historical area changes in East Island (TE-20) between 1978 and 2005. Significant shoreline events are illustrated along the time-series line (Martinez et al 2009[2]).

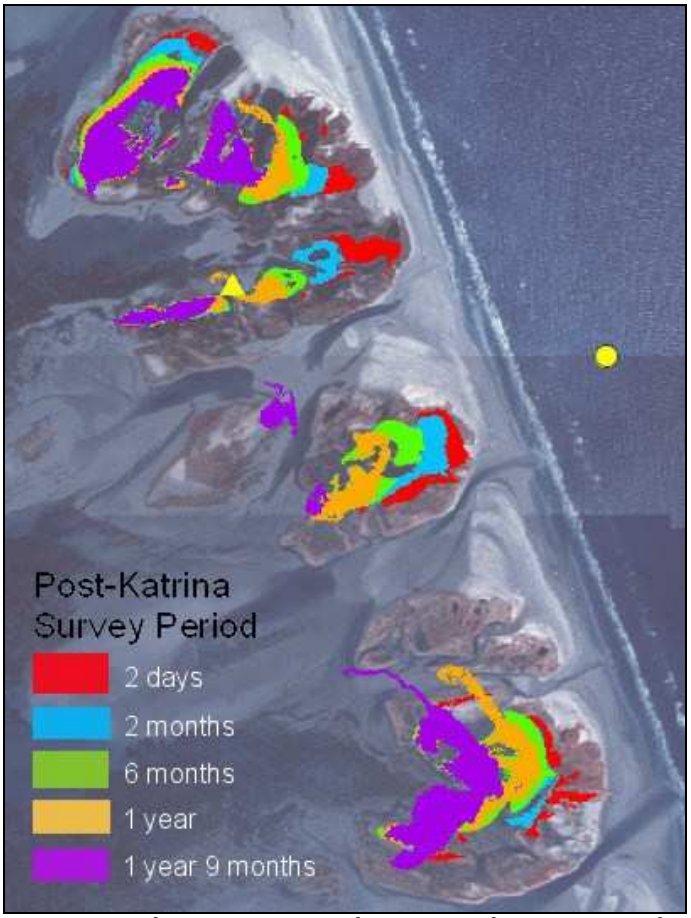
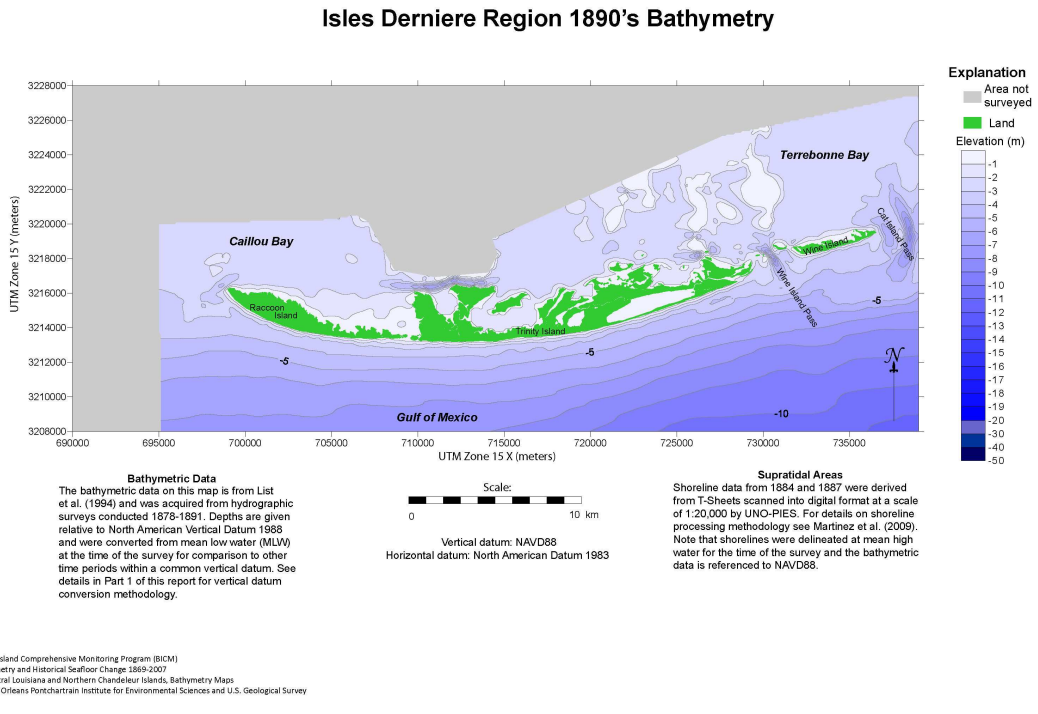


Figure 5. Draft LiDAR surveys of a portion of the Northern Chandeleur Islands. Colored portions are the land areas above MHW.



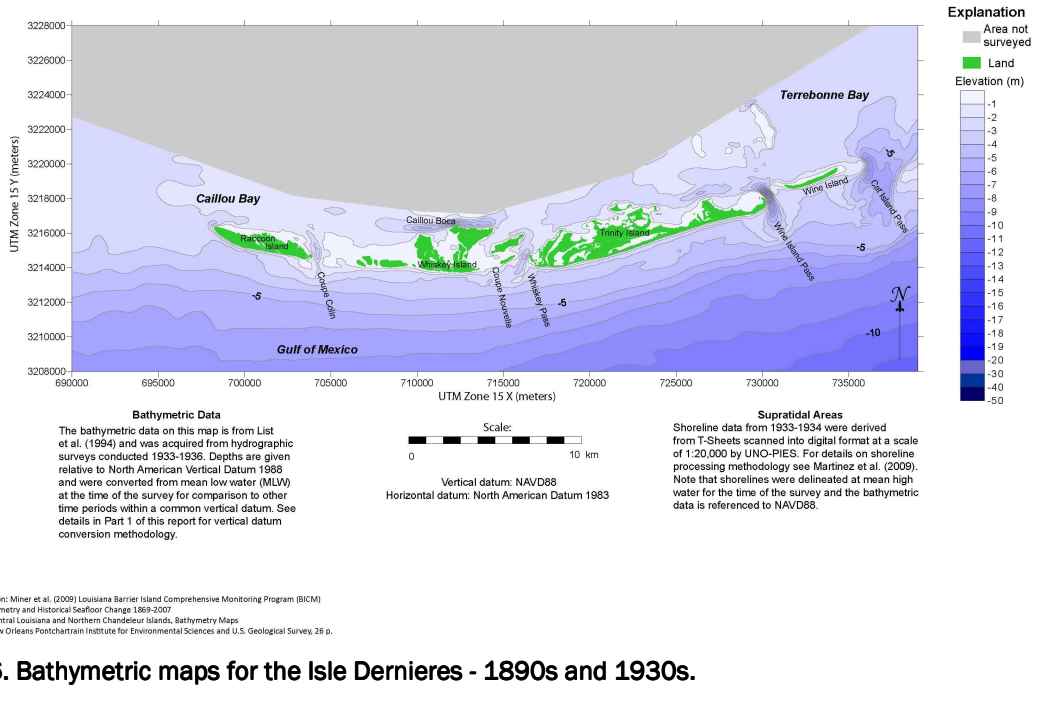
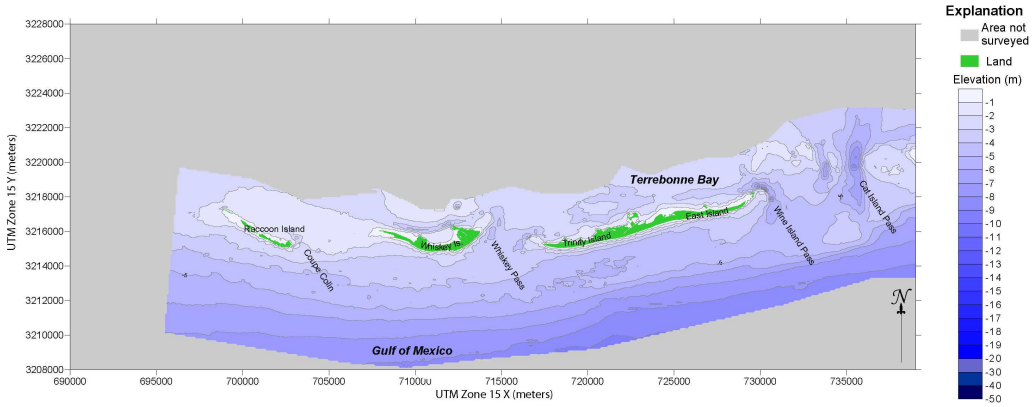


Figure 6. Bathymetric maps for the Isle Dernieres - 1890s and 1930s.

Isles Derniere Region 2006 Bathymetry



Bathymetric Data

The bathymetric data on this map was acquired from hydrographic surveys conducted in 2006 by UNO-PIES and USGS. Depths are given relative to North American Vertical Datum 1988 (NAVD88). Not to be used for navigation purposes.

Scale:
0 10 km

Vertical datum: NAVD88 (GEOID03 Rev. 10/2006)
Horizontal datum: North American Datum 1983 (2004.65)

Supratidal Areas

The areas shown in green were assigned an elevation value of 0.5 meters. Shoreline data from 2005 were derived from a combination of Digital Ortho-Quarter Quads (DOQQs) and Digital Globe Quickbird satellite imagery obtained by UNO-PIES. The shorelines were derived from thematic land/water classifications produced from these image datasets and subsequent GIS editing by UNO-PIES.

Louisiana Barrier Island Comprehensive Monitoring Program (BICM)
Volume 3: Bathymetry and Historical Seafloor Change 1869-2007
Part 2: South-Central Louisiana and Northern Chandeleur Islands, Bathymetry Maps
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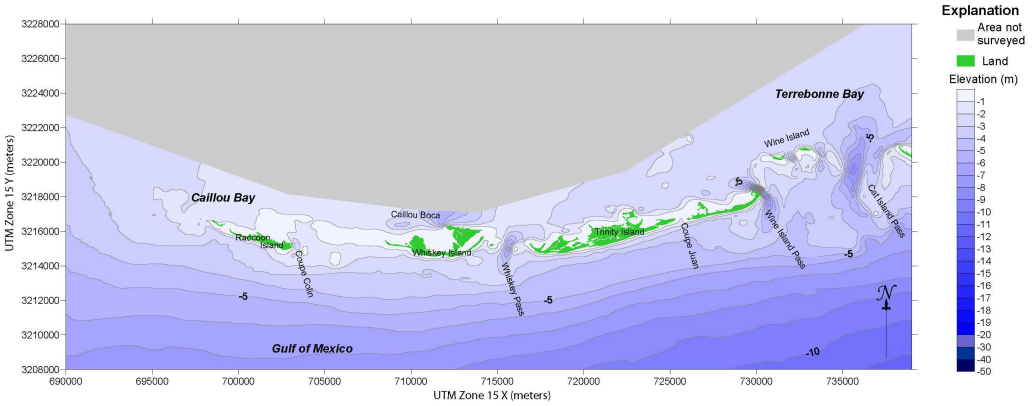
Isles Derniere Region 1980's Bathymetry



Bathymetric Data

The bathymetric data on this map is from List et al. (1994) and was acquired from hydrographic surveys conducted 1988-1989. Depths are given relative to North American Vertical Datum 1988 and were converted from mean lower low water (MLLW) relative to the Grand Isle tide gauge for the 1960-1978 tidal epoch so that these data are comparable to other data sets within a common vertical datum. See details in Part 1 of this report for vertical datum conversion methodology.

Scale:
0 10 km

Vertical datum: NAVD88
Horizontal datum: North American Datum 1983

Supratidal Areas

Shoreline data for 1988 were derived from aerial photography obtained by UNO-PIES. The shorelines were derived from thematic land/water classifications produced from these image datasets and subsequent GIS editing by UNO-PIES. For details on shoreline processing methodology see Martinez et al. (2009). Note that shorelines were delineated at mean high water for the time of the image and the bathymetric data is referenced to NAVD88.

Louisiana Barrier Island Comprehensive Monitoring Program (BICM)
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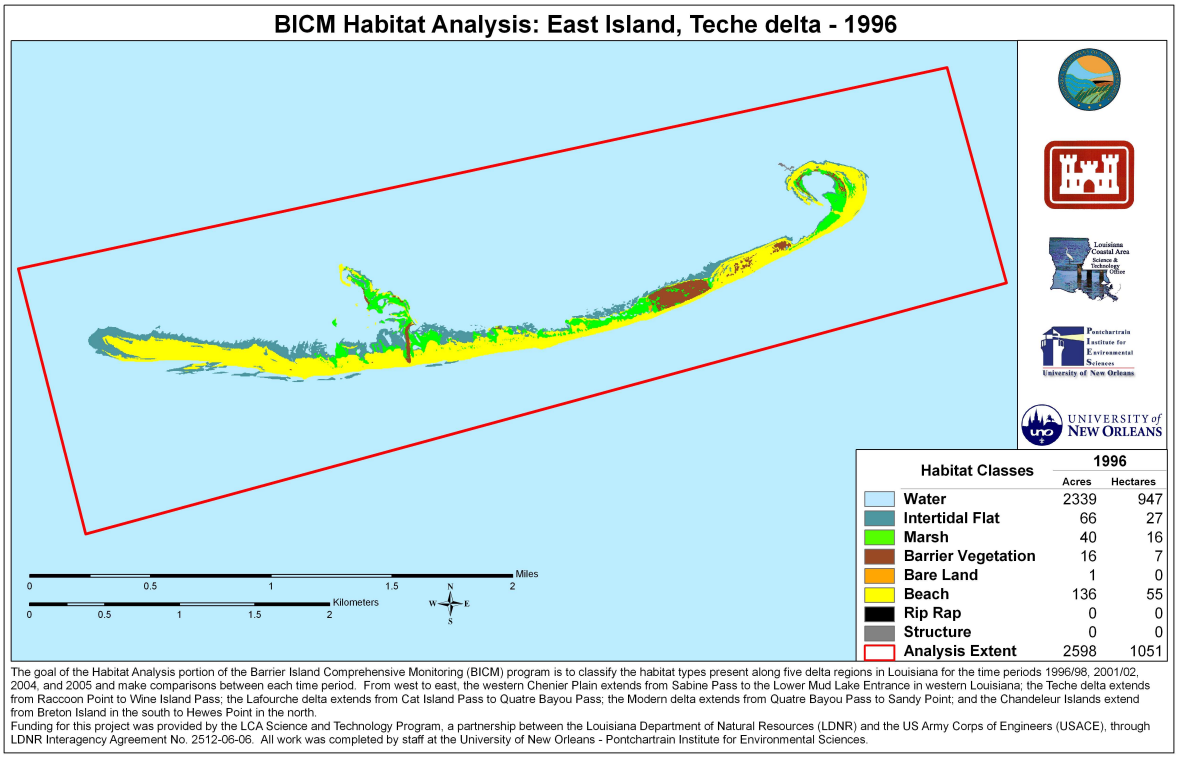
University of New Orleans Pontchartrain Institute for Environmental Sciences and U.S. Geological Survey

Figure 7. Bathymetric maps for the Isle Dernieres - 1980s and 2006.



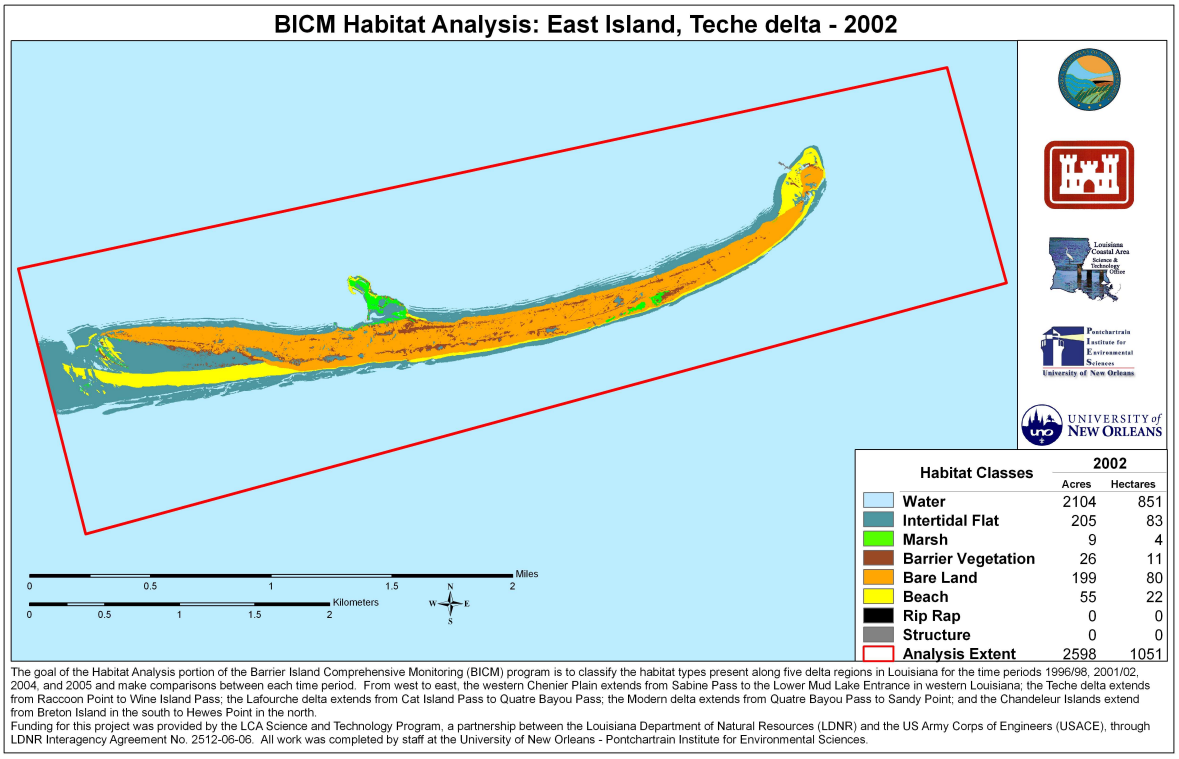
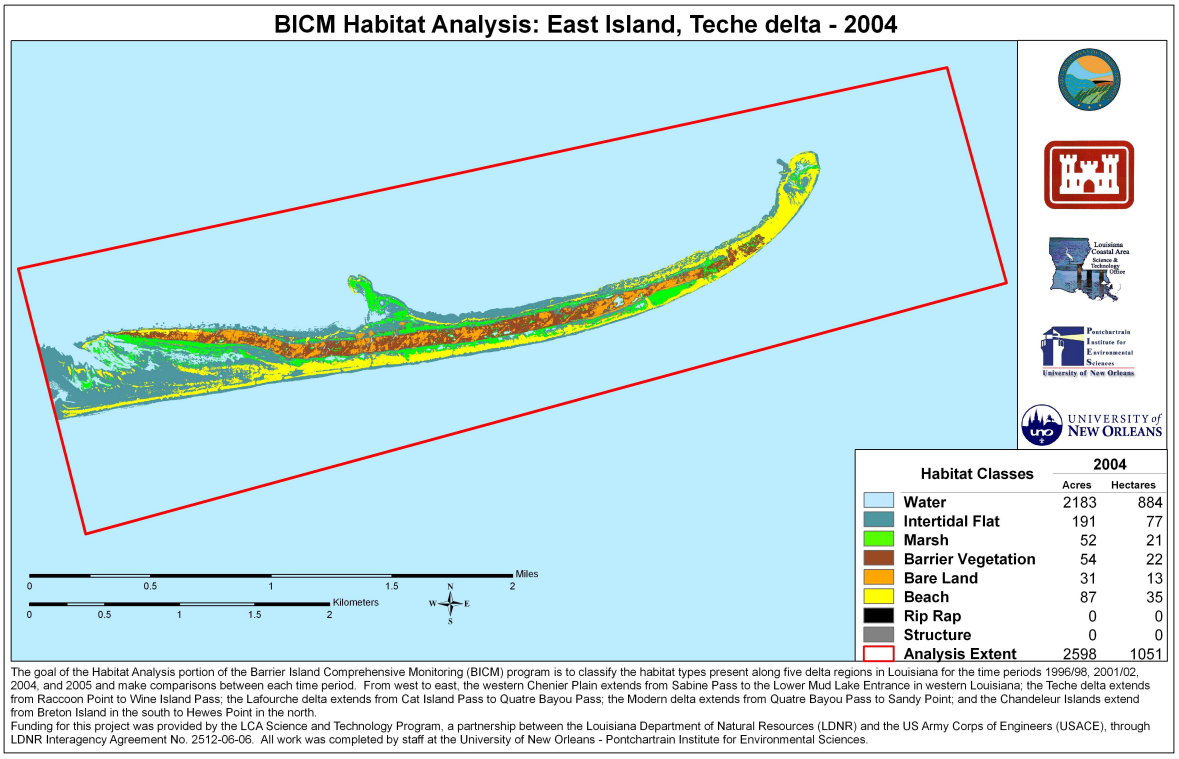


Figure 8. Habitat classification maps of East Island (TE-20), Isle Dernieres, Terrebonne Parish, LA for 1996 and 2002.



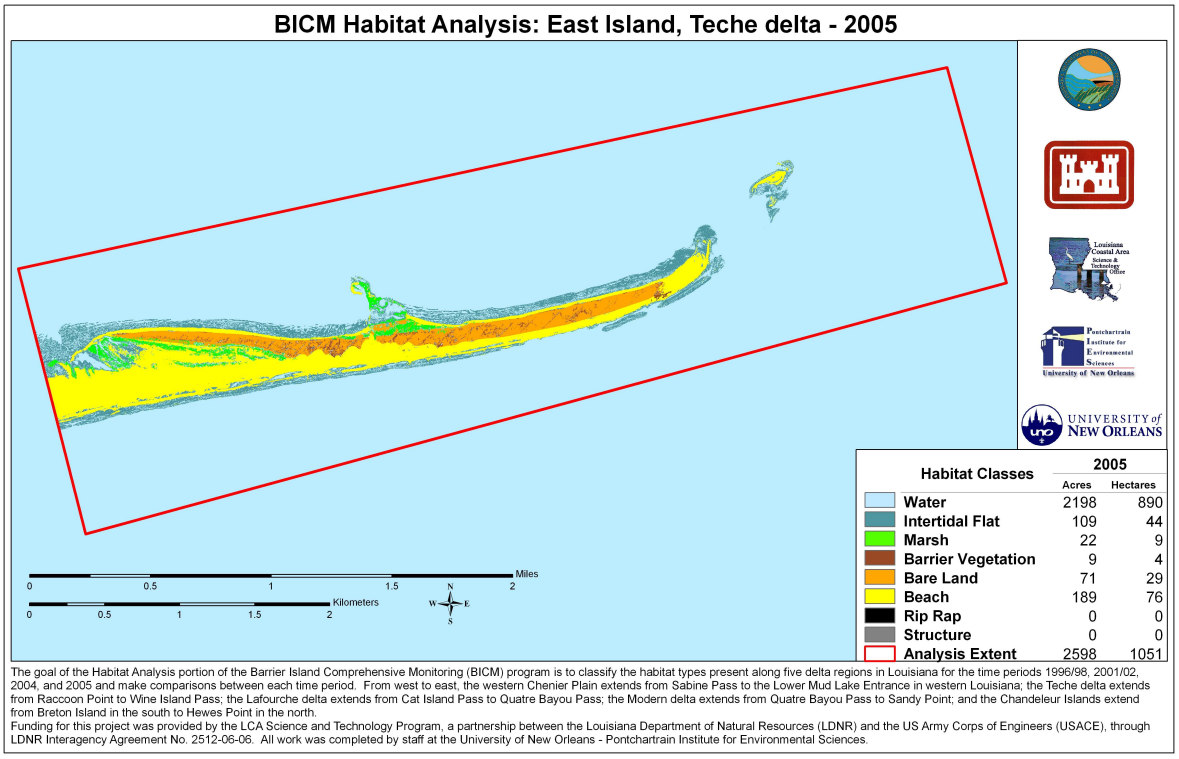


Figure 9. Habitat classification maps of East Island (TE-20), Isle Derniers, Terrebonne Parish, LA for 2004 and 2005.

BARRIER ISLAND MAINTENANCE PROGRAM (BIMP)

Several legislative programs have been established on both the State and federal levels that call for the implementation of a program to stabilize and preserve Louisiana's barrier islands and shorelines. House Bill No. 429, Act No. 407, authored by Representative Gordon Dove during the 2004 Regular Session, outlined the process by which the OCPR would annually develop a list of priority projects to be submitted to the House and Senate Committees on Natural Resources. These projects would be funded by the Barrier Island Stabilization and Preservation Fund, which was established by House Bill No. 1034, Act No. 786 of the 2004 Session to provide appropriations, donations, grants and other monies for the program. The legislation requires this fund to be used exclusively by the OCPR to support the Barrier Island Stabilization and Preservation Program, with all interest earnings and unencumbered monies remaining in the fund at the end of the fiscal year.

In accordance with this legislation, and with the understanding that maintenance is an integral part of stabilization, preservation, and restoration of any barrier island or shoreline, BIMP was conceptualized by the OCPR. BIMP will provide the framework for categorizing, prioritizing, selecting, and funding State barrier island maintenance projects, while coordinating with CWPPRA and other existing restoration mechanisms.

Rationale

The BIMP program is necessary to quickly coordinate and fund the maintenance of previously constructed barrier shoreline restoration projects in Louisiana. This program can act as a comprehensive management approach to prioritizing rehabilitation efforts in coordination with other restoration initiatives (e.g., CWPPRA, LCA).

During the past decade, numerous barrier islands and headlands in Louisiana have been or are currently being restored by the State and its federal partners through CWPPRA and other sources. CWPPRA projects have a design life of 20 years; however, scheduled maintenance of these projects has not been incorporated into their funding or design. Design of these projects relies heavily on numerical models for predicting their longevity and ultimate success. Inherent in these models are certain assumptions and the realization that there are significant uncertainties about the physical processes that affect the stability of these land masses. If the project is impacted by more events than assumed in the model, the condition of the barrier island or headland deteriorates considerably, thereby reducing the life of the project. The project then requires maintenance to sustain the predicted design template. Maintenance costs can increase exponentially when not performed in a timely manner. Therefore, BIMP is a tool that can be used to formulate a much needed component of maintenance planning for existing projects without maintenance funds. This strategy will address the need for timely and cost-effective maintenance of barrier shoreline projects to ensure their long-term success.

Program Area

BIMP encompasses all barrier islands, headlands, and sandy shorelines, restored or otherwise (Figure 10). Based on the geographic and geologic setting, Louisiana's barrier shoreline will be treated as a series of eight coastal segments (Campbell et al. 2005[3]).

1. Chandeleur Islands – Northern Chandeleur Islands (Freemason Islands, North Islands, and New Harbor Islands) and Southern Chandeleur Islands (Breton Island, Grand Gosier Island, and Curlew Islands).
2. Plaquemines – Sandy Point, Pelican Island, Shell Island, ''Chaland Headland'' (Pass La Mer area), Chenier Ronquille, and East and West Grand Terre Islands.
3. Lafourche – Grand Isle and Caminada- Moreau Headland.
4. Timbalier Islands – Timbalier and East Timbalier Islands.
5. Isle Dernieres – Raccoon, Whiskey, Trinity, East, and Wine Islands.
6. Freshwater Bayou to Point Au Fer – Point Au Fer, Marsh Island, and Chenier au Tigre.
7. Eastern Chenier Plain – Freshwater Bayou to Calcasieu Pass.
8. Western Chenier Plain – Calcasieu Pass to Sabine Pass.

Grouping these apparently disparate and disjointed units of barrier islands, headlands, and sandy shorelines into coastal segments will facilitate the development of a regional long-term strategy for shoreline maintenance, including project prioritization and development. It should be noted that any alteration to an area within a segment will affect the remainder of the segment due to coastal processes and morphodynamics, and, consequently, the sediment budget.

[3] Campbell, T.; L. Benedet, and C. W. Finkl. 2005. Regional strategies for barrier island restoration. *In:* Finkl, C.W. and S. M. Khalil, (eds.), *Louisiana Barrier Island Restoration.* West Palm Beach, Florida: *Journal of Coastal Research*, Special Issue No. 44, 240–262.

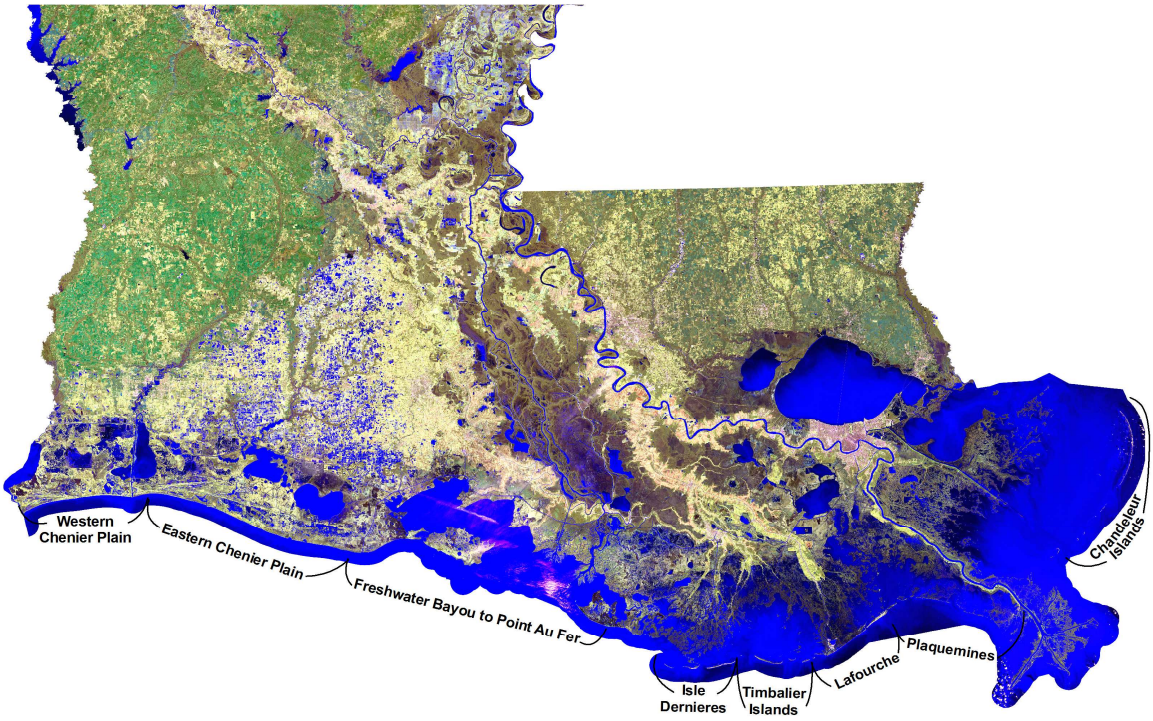


Figure 10. Various coastal segments including sandy shorelines, headlands, and barrier islands.

Funding and Timeline

As part of BIMP, OCPR will formulate an annual list of potential projects based on inspections of previously constructed projects, post-storm assessments, BICM data, and existing project maintenance schedules. Data from these sources will be used to identify existing projects with an immediate need for repairs. All projects will be compiled and ranked by December 1 of each year. This list, along with recommended funding levels, will be provided to both the House and Senate Committees on Natural Resources for approval and funding. Funding will come from the Barrier Island Stabilization and Preservation Fund as set forth in House Bill No. 1034, Act No. 786 of the 2004 Session.

BIMP Projects

1. The 2006/2007 BIMP projects approved for implementation were the Bay Champagne Marsh Creation and Bay Champagne Sand Fencing projects. Bay Champagne is a 250-acre body of water just east of Port Fourchon in Lafourche Parish. Currently, only a narrow dune feature separates the bay from the Gulf, and a breach of this dune would expose interior marsh to increased erosion. These restoration projects would create 70 acres of marsh in the bay, as well as utilize sand fencing to stabilize the fore and back dune areas. The total combined cost of the projects was estimated at $2,820,000. These projects were discontinued due to a lack of close proximity sediment sources. Additionally, the Caminada Headland project currently under design should address the Bay Champagne area-of-need when it is constructed.
2. The 2007/2008 BIMP selections were the Sediment Bypassing at the Mermentau Jetties and the East Grand Terre Vegetative Plantings projects. The former project planned to pair $1,387,688 in Cameron Parish CIAP funds with $2,750,000 in BIMP funds to hydraulically dredge material adjacent to the east Mermentau Jetty and move it to the west side. This would allow the littoral drift to disperse the material on the beach front. The goal of this project was to rebuild approximately 75 to 100 acres of gulf shoreline at Hackberry Beach. However, this project was deemed unfeasible because a preliminary investigation found there was insufficient sand to justify this project, and preliminary modeling showed that removing sediment adjacent to the east jetty could cause accelerated erosion and possible breaching of the shoreline at the north end of the jetty. The East Grand Terre Vegetative

Plantings project will be implemented in the project area of the East Grand Terre Island Restoration (BA-30) CIAP project that was constructed in 2010. The total cost of the BIMP planting project is approximately $750,000. It is expected that the planting project will be completed in spring 2011.

3. The BIMP project approved for implementation in the 2008/2009 cycle was the 2009 Sand Fencing Project, which consisted of installation of 34,000 linear feet of sand fencing within the project areas of five constructed barrier island restoration projects in Terrebonne and Plaquemines Parishes. The construction contract amount was $198,200. The proposed sand fencing was installed on Trinity/East Islands in the eastern Isles Dernieres (TE-20 East Island, TE-24 Trinity Island, and TE-37 New Cut project areas); Timbalier Island (TE-40 Timbalier Island project area); and near Chaland Pass (BA-38 Chaland Headland project area). Installation of the sand fencing will facilitate the capturing of wind-blown sand and building of additional sand dunes on the islands. The work was completed in May 2010. No additional projects were selected this cycle, as the Sediment Bypassing at the Mermentau Jetties and East Grand Terre Vegetative Plantings projects were expected to use funds from this funding cycle.
4. There were no new BIMP projects selected in the 2009/2010 cycle, because the Mermentau Jetties project's preliminary feasibility investigations continued through early 2010, and it was expected that the Jetties project would use funding from this cycle. When this project was deemed unfeasible, it was hoped that another suitable project could be developed within Cameron Parish, so the funds from this BIMP funding cycle were set aside for this potential new project. However, another suitable project was not identified for this funding cycle in Cameron Parish.

BARRIER SHORELINE RESTORATION PROJECTS

Constructed Projects

The following barrier shoreline projects have been constructed under CWPPRA and CIAP (Figure 11):

1. East Grand Terre Island Restoration (BA-30) (CIAP, 2011) – The goal of this project is to stabilize and benefit 1,575 acres of barrier island habitat and extend the island's life expectancy. Dredged material was used to create dune and marsh habitat on East Grand Terre Island. This project was constructed using CIAP 2007 funds.
2. Enhancement of Barrier Island Vegetation Demonstration (TE-53) (CWPPRA, 2010) – The goal of this project is to test several technologies or products to enhance the establishment and growth of key barrier island and salt marsh vegetation. The project will focus specifically on enhancing the establishment and growth of transplants of both dune vegetation (*Panicum amarum* and *Uniola paniculata*) and marsh vegetation (*Spartina alterniflora* and *Avicennia germinans*). Planting took place on Whiskey Island and New Cut in 2010, and monitoring of vegetation will begin in 2011.
3. East Marsh Island Marsh Creation (TV-21) (CWPPRA, 2010) – The goal of this project was to re-create 165 acres of brackish marsh habitat in the open water areas of the interior marsh on eastern Marsh Island primarily caused by hurricane damage and to nourish 197 acres of the surrounding broken marsh. The project was able to accomplish these goals, as well as nourish an additional approximately 800 acres of broken marsh surrounding the original project area via unused CWPPRA construction funds, totaling 1,159 acres of marsh creation and nourishment.
4. Pass Chaland to Grand Bayou Pass Barrier Shoreline Restoration (BA-35) (CWPPRA, 2009) – This project includes the deposition of dredged material, the creation of tidal creeks and ponds, and vegetation plantings. These features will act as a buffer against wave and tidal energy, thereby protecting the mainland shoreline from breaching and continued erosion.
5. Rockefeller Refuge Shoreline Protection Demonstration (ME-18) (CIAP, 2009) – This project will determine the best option for combating erosion in the high energy system of the Gulf shoreline at the Rockefeller Wildlife Refuge by analyzing four different test sections of shoreline protection. The alternatives include a 700-foot section of beach fill with gravel/crushed stone, a 500-foot section of reef breakwater with gravel/crushed stone, a 500-foot section of reef breakwater with lightweight aggregate core, and a 500-foot section of concrete panel breakwater. This project was designed with CWPPRA funds, and was constructed using CIAP 2007 funds. The project is currently in the performance evaluation phase. The final monitoring report is expected to be completed in 2011.

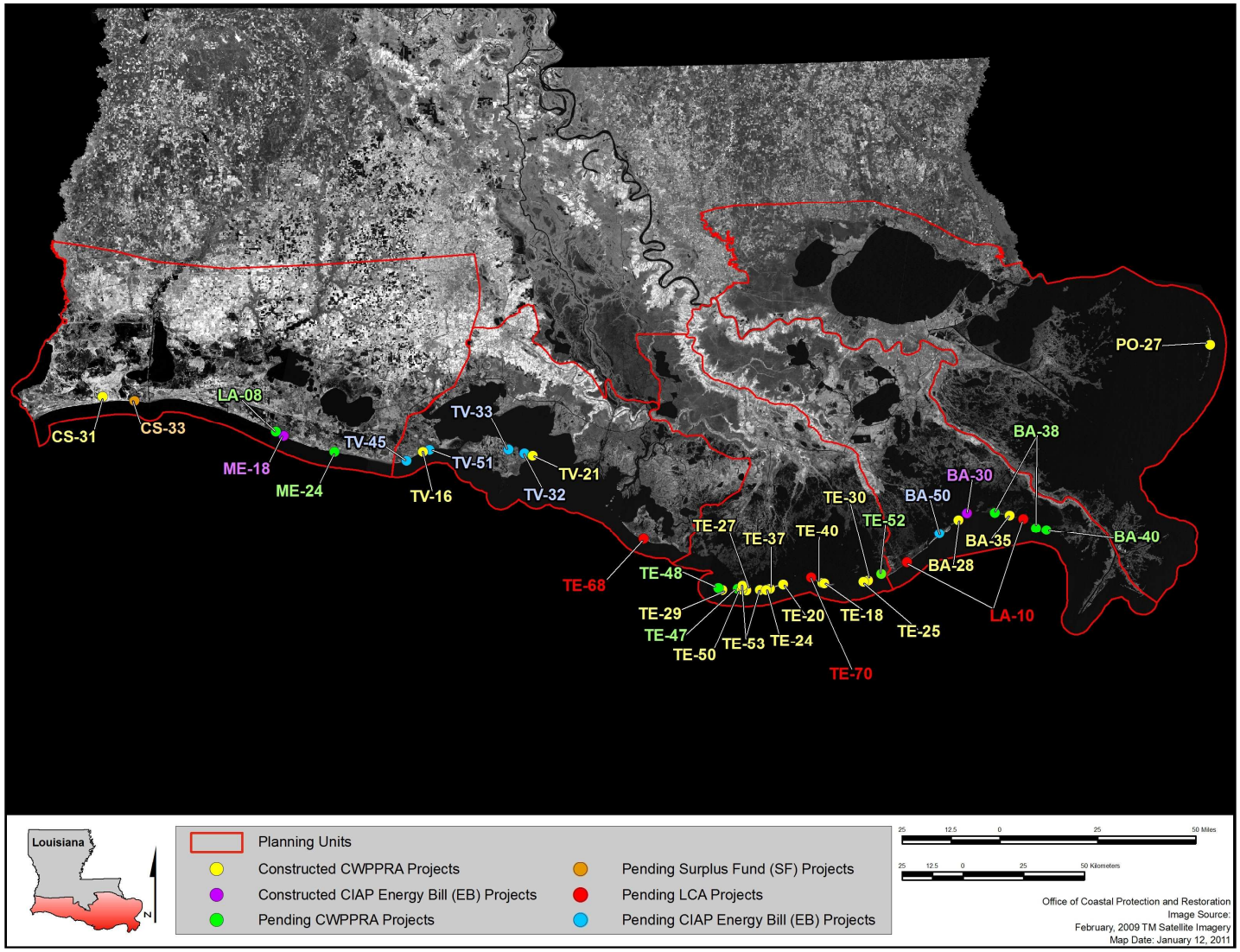


Figure 11. Location of barrier island, barrier headland, and sandy shoreline restoration projects in Louisiana (includes: constructed CWPPRA and CIAP projects and pending CWPPRA, LCA, CIAP, and Surplus Fund projects).

6. Whiskey Island Back Barrier Marsh Creation (TE-50) (CWPPRA, 2009) – The goal of this project is to enhance the function of Whiskey Island as a protective barrier for back-bay and inland areas. Dredged material was deposited on the island's back-barrier area to widen the marsh platform on the central and eastern portions of Whiskey Island.
7. New Cut Dune and Marsh Restoration (TE-37) (CWPPRA, 2007) – The objective of this project was to close the breach between East and Trinity Islands that was originally created by Hurricane Carmen (1974) and subsequently enlarged by Hurricane Juan (1985). The project created barrier island dunes and marsh habitat and lengthened the structural integrity of the eastern Isles Dernieres by restoring the littoral drift and adding sediment to the near-shore system.
8. Timbalier Island Dune and Marsh Creation (TE-40) (CWPPRA, 2004) – Timbalier Island is migrating rapidly to the west/northwest; therefore, the western end of Timbalier Island is undergoing lateral migration by spit-building processes at the expense of erosion along the eastern end. The objective of this project is to restore the eastern end of Timbalier Island by the direct creation of beach, dunes, and marsh.
9. Holly Beach Sand Management (CS-31) (CWPPRA, 2003) – The purpose of the project is to protect existing coastal wetlands by restoring and maintaining the integrity and functionality of the remaining chenier/beach ridge. This objective was accomplished through beach renourishment, installation of sand fencing, vegetation plantings, and monitoring of the shoreline response.
10. Vegetative Plantings of a Dredged Material Disposal Site on Grand Terre Island (BA-28) (CWPPRA, 2001) – The goal of this project is to stabilize dredged material sites on West Grand Terre Island. This objective was achieved through vegetation plantings and by purchasing grazing rights on the island for the 20-year life of the project.
11. Chandeleur Islands Marsh Restoration (PO-27) (CWPPRA, 2001) – This project is intended to accelerate the recovery period of barrier island areas overwashed by Hurricane Georges in 1998 through vegetation plantings. The overwash areas, which encompass 364 acres, are located at 22 sites along the Chandeleur Sound side of the island chain and were planted with smooth cordgrass (*Spartina alterniflora*).
12. Chenier Au Tigre Sediment Trapping Demonstration (TV-16) (CWPPRA, 2001) – This demonstration project was intended to test the effectiveness of rock breakwaters that are designed to trap and retain sediment from gulf tides, stabilize the existing shoreline from ongoing erosion, and build up portions of the coastline that have already eroded. Increased sediment accretion on the Gulf of Mexico side of the chenier is expected to act as a buffer between the higher salinity Gulf water and the brackish marsh, which lies immediately behind the chenier.
13. East Timbalier Island Sediment Restoration, Phase 1 (TE-25) (CWPPRA, 2000) – The objective of this project is to strengthen and thus increase the life expectancy of East Timbalier Island. The project called for the placement of mined sediment in three embayments along the landward shoreline of East Timbalier Island. The project also included aerial seeding of the dune platform, installation of sand fencing, and dune vegetation plantings.
14. East Timbalier Island Sediment Restoration, Phase 2 (TE-30) (CWPPRA, 2000) – The project goal is to strengthen and increase the life expectancy of East Timbalier Island by placing dredged material along its landward shoreline. Additional rock was placed on the existing breakwater in front of the island which will help protect the created area from erosion.
15. Isles Dernieres Restoration East Island (TE-20) (CWPPRA, 1999) – The project objective is to restore the coastal dunes and wetlands of the Eastern Isles Dernieres. Approximately 3.9 million cubic yards of sand were dredged from Lake Pelto and used to build a retaining dune, which was then hydraulically filled to create an elevated marsh platform. Sand fences and vegetation were also installed to stabilize the sand and minimize wind-driven transport.
16. Isles Dernieres Restoration Trinity Island (TE-24) (CWPPRA, 1999) – The project objectives include the restoration of the dunes and marsh of Trinity Island. Approximately 4.85 million cubic yards of sand were dredged from Lake Pelto and used to build a retaining dune, which was then hydraulically filled to create an elevated marsh platform at the bay side of the island. Sand fences and vegetation were also installed to stabilize the sand and minimize wind-driven transport.
17. Whiskey Island Restoration (TE-27) (CWPPRA, 1999) – The objective of this project is to create and restore beaches and back island marshes on Whiskey Island. The project consisted of creating 523 acres of back island marsh and filling in the breach at Coupe Nouvelle. The initial vegetation planting of smooth cordgrass (*Spartina alterniflora*) on the bayside shore was completed in July 1998 and additional vegetation seeding and planting was carried out in spring 2000.

18. Raccoon Island Breakwaters Demonstration (TE-29) (CWPPRA, 1997) – The goal of this project is to reduce shoreline erosion and increase land coverage. Eight segmented breakwaters were constructed along the eastern end of the island to reduce the rate of shoreline retreat, promote sediment deposition along the beach, and protect seabird habitat. Project effectiveness was determined by monitoring changes in the shoreline, wave energy, and elevations along the beach, and by surveys of the gulf floor between the shoreline and the breakwaters.
19. Timbalier Island Planting Demonstration (TE-18) (CWPPRA, 1996) – For this project, sand fences were installed and vegetation suited to the salinity and habitat type of Timbalier Island was planted in several areas on the island to trap sand and buffer wind and wave energy.

Projects Funded for Construction

The following barrier shoreline projects have been funded and are in various stages of construction under CWPPRA (Figure 11):

1. Barataria Barrier Island Complex Project: Pelican Island and Pass La Mer to Chaland Pass Restoration (BA-38) – The objectives of this project are to create barrier island habitat, enhance storm-related surge and wave protection, prevent overtopping during storms, and increase the volume of sand within the active barrier system. This project includes dedicated dredging of local, near shore sand sources to directly create beach, dune, and wetland habitats. The Chaland Headland portion of this project was constructed in 2007; construction of the Pelican Island segment is pending completion of permitting and landrights. In response to the Deepwater Horizon oil spill, the State began construction in June 2010 of a barrier berm from Shell Island to Scofield Island west of the river to safeguard its coast from the effects of the oil. The construction of the berm introduced a significant amount of material into the barrier island system. To maximize this opportunity, the State plans to utilize the berm material and funds set aside for berm construction to help construct the Pelican Island Restoration project. Pelican Island is already funded for construction through CWPPRA; consequently, Berm to Barrier funds will be used to augment the CWPPRA funds and to construct a wider footprint if needed.
2. Riverine Sand Mining/Scofield Island Restoration (BA-40) – The goals of this project are to repair breaches and tidal inlets in the shoreline, reinforce the existing shoreline with sand, increase the width of the island with back barrier marsh to increase island longevity, and to re-establish a sandy dune along the length of the shoreline to protect the newly constructed marsh platform from sea level rise and storm damage. The project will create and nourish existing island habitat through the introduction of riverine sand and offshore fine sediment. Although this project was designed under CWPPRA, it will be constructed using Berm to Barrier funds.
3. Bioengineered Oyster Reef Demonstration (LA-08) – The purpose of this project is to test a new, bio-engineered product to address rapid shoreline retreat and wetland loss along the Gulf of Mexico shoreline in areas that would not support a traditional breakwater because of soils with low load bearing capacity. The bio-engineered structure is designed to grow rapidly into an oyster reef utilizing specifically designed structural components with spat attractant and enhanced nutrients conducive to rapid oyster growth. This project is located along the Rockefeller Wildlife Refuge west of Joseph Harbor canal in Cameron Parish, which has an average shoreline retreat of 30.9 feet per year (ft/yr) and an extremely low soil load bearing capacity (250-330 psf). This project is expected to go to construction in 2011.
4. Raccoon Island Shoreline Protection/ Marsh Creation (TE-48) – The goal of this project is to protect the Raccoon Island rookery and seabird colonies from an encroaching shoreline by reducing the rate of erosion along the western end of the island and creating more land along the northern shoreline. This goal was accomplished through the construction of eight additional breakwaters and a terminal groin along the gulf side of the island, adjacent to the Raccoon Island Breakwaters Demonstration (TE-29) project. In addition, dredged material will be used to create marsh on the bay side of the island. The shoreline protection (Phase A) component of this project was constructed in 2007; construction of the marsh creation (Phase B) component is pending.
5. West Belle Pass Barrier Headland Restoration (TE-52) – The goals of this project are to re-establish the eroded West Belle Pass headland via dune and marsh creation and to prevent increased erosion along the adjacent bay shoreline. The project will create a continuous headland approximately 9,300 feet in length, 120 acres of beach/dune habitat, and 150 acres of marsh habitat. The project is expected to go to construction in 2011.

Future Projects

The following barrier shoreline projects are in various stages of design under CWPPRA, CIAP, Surplus, and LCA (Figure 11):

1. Southwest Louisiana Gulf Shoreline Nourishment and Protection (ME-24) (CWPPRA) – Sediment from the Gulf of Mexico will be used to rebuild approximately nine miles of shoreline between Dewitt Canal and Constance Lake. The project shoreline will be maintained and increased by creating beach nourishment feeder berms in shallow open gulf water from additional dredge material in three to five year maintenance cycles.
2. Ship Shoal: Whiskey West Flank Restoration (TE-47) (CWPPRA) – The objective of this project is to rebuild dunes and a marsh platform on the west flank of Whiskey Island through the deposition of dredged material transported from Ship Shoal. This project will provide a barrier to reduce wave and tidal energy, thereby protecting the mainland shoreline from continued erosion.
3. Lake Sand Terracing (TV-32) (CIAP) – The objective of this project is to construct approximately 55 acres of shallow bay bottom terraces planted with native vegetation on Marsh Island. The construction of the terraces will result in the direct creation of 34 acres of marsh, and it is anticipated that construction of the terraces will result in a 50-percent reduction in the erosion of the neighboring shoreline. This project will be constructed with Iberia Parish CIAP funds.
4. Lake Tom/Lake Michael Terracing (TV-33) (CIAP) – The project is located on the Marsh Island State Wildlife Refuge and will construct approximately 55 acres of shallow bay bottom terraces planted with native vegetation. The construction of the terraces will result in the direct creation of 55 acres of marsh and it is anticipated that construction of the terraces will result in a 50-percent reduction in the erosion of the neighboring shoreline. This project will be constructed with Iberia Parish CIAP funds.
5. Bayside Segmented Breakwaters at Grand Isle (BA-50) (CIAP) – The purpose of this project is to reduce erosion on the bay side of Grand Isle. Twenty-four 300 foot breakwaters (approximately 1.5 miles) will be constructed on the back-bay side of Grand Isle. This project will be constructed with Jefferson Parish CIAP funds.
6. Oyster Reef Parallel to the Coastline at Chenier au Tigre (TV-51) (CIAP) – The goal of this project is to create a one mile oyster reef 1,300 feet from shore by using approved, available materials. Oyster spat are plentiful in this area; therefore, creating the base will establish a living, sustainable reef. This project will be constructed with Vermilion Parish CIAP funds.
7. Shoreline Protection and Marsh Creation at Tiger Point (TV-45) (CIAP) – The goal of this project is to install cement bags as breakwaters for approximately 1,500 feet to slow erosion and facilitate marsh accretion along the Gulf of Mexico shoreline near Freshwater Bayou. This project will be constructed with Vermilion Parish CIAP funds.
8. Cameron Parish Shoreline (CS-33) (Surplus) – The goal of this project is to nourish 5 to 6 miles of the Gulf shoreline west of the Calcasieu Ship Channel utilizing sand mined from an offshore borrow site. This project will be funded with Surplus 2007/2008 funds.
9. Stabilize Gulf Shoreline at Point Au Fer Island (TE-68) (LCA) – This LCA project will protect the integrity of Point au Fer Island, which maintains separation of Four League Bay from the Gulf of Mexico. This project will also increase the island's resistance to storms and erosion and increase habitat for many species of indigenous and migratory wildlife. These objectives will be reached through the placement of material on the beach from the dredging of offshore sources, the Atchafalaya River, or upland disposal sites. The project's design may also include offshore segmented breakwaters or groins to help reduce erosion and trap sediments that would otherwise be lost from the system.
10. Terrebonne Basin Barrier Shoreline (TBBS) Restoration (TE-70) (LCA) – The goal of this LCA project is to restore the Timbalier and Isle Dernieres barrier island chains, specifically Timbalier Island, East Timbalier Island, Wine Island, East Island, Trinity Island, Whiskey Island, and Raccoon Island, by widening the islands and increasing dune crest elevation. By restoring the integrity and function of the barrier shoreline of Terrebonne Basin, this project will reduce the marine influence of back barrier ecosystems by reducing storm surges, wave energy, and salt water intrusion in estuaries and bays and associated wetlands.

The following two projects are part of LCA's Barataria Basin Barrier Shoreline (BBBS) Restoration (LA-10) project:

11. Caminada Headland Restoration – The Caminada-Moreau Headland protects the highest concentration of near-gulf oil and gas infrastructure in the coastal area. This reach of the Barataria shoreline also supports the only land-based access to the barrier shoreline in

the Deltaic Plain. The Caminada Headland Restoration project would restore degraded areas of the headland through the creation of dunes, berms, and marsh habitat. The overall objective of this project is to restore and maintain the headland, and thereby protect unique coastal habitats, continue sand transport to Grand Isle, and protect Port Fourchon and the only hurricane evacuation route available to the region. The Caminada Headland component of the BBBS Restoration should be constructed at the earliest possible date. CIAP 2007 and Surplus 2008 funds have been allocated to implement a portion of this project.

12. Shell Island Restoration – Shell Island is a barrier island in the Plaquemines barrier island system and a critical component of the Barataria shoreline. The Shell Island Restoration project would restore this barrier island through the creation of dune and marsh habitat. The overall goal of this project is to prevent intrusion of the Gulf of Mexico into interior bays and marshes, which would result in a permanent modification of the tidal hydrology of the Barataria Basin. The project would also help restore natural sand transport along this reach of the coast, as well as protect nearby highways, ports, and oil and gas facilities. The Shell Island component of the BBBS Restoration project should be constructed at the earliest possible date. This segment of the shoreline has been nearly lost, and failure to take restorative action could result in the loss of any future options for restoration. The State is investigating restoration actions on Shell Island using Berm to Barrier funds.

BARRIER SHORELINE CONDITION

Louisiana's barrier shoreline is one of the fastest eroding shorelines in the world. Due to the geologic setting and the predicted changes in sea level during coming decades, these shoreline habitats and the services they provide are some of the most vulnerable features of our coastal landscape. OCPR's BICM Program has recently been established to assess and report on the changes of the coastal shoreline to help develop programmatic approaches to restoration and maintenance.

Current shoreline erosion data from BICM (Martinez et al. 2009[2]) indicate that most of Louisiana's shoreline is eroding faster than ever before, with some short-term (1996 – 2005) erosion rates more than double the historic (1890s – 2005) averages (Figures 12 and 13).

The Chandeleur Islands have exhibited the largest changes in erosion rates. Historic erosion rates of approximately 27 ft/yr have increased within the past decade to over 125 ft/yr, predominantly due to storm activities. This has led to a decrease in the overall size of Breton Island by approximately 776 acres, or 95 percent (Table 1). Additionally, over 66 percent (85.1 acres) of the land area remaining in 2004 was removed by Hurricanes Katrina and Rita in 2005. When compared to the fact that only 18 percent (150.7 acres) of the land mass was lost between 1850 and 1920, this emphasizes the need to maintain the islands so that they are more sustainable during storm events. The data seems to indicate that there is a "tipping point" beyond which restoration costs increase exponentially and results may become less predictable.

The large reduction of Breton Island within the last decade, along with the extreme loss experienced from Hurricane Katrina, emphasizes the need to maintain flexibility in setting restoration priorities. McBride and Byrnes (1997[4]) predicted that Breton Island would disappear in 2106 based on the land loss rates through the 1980s. When compared to other islands that were projected to be lost in the early 2000s, the restoration of Breton Island was a comparatively low priority. However, based on BICM data collected after Hurricanes Katrina and Rita, the projected disappearance for Breton Island based on the land loss rates through 2005 (does not include impacts from Hurricanes Gustav and Ike in 2008) is now 2013 (Table 1). More dramatic even than Breton Island are Grand Gossier and Curlew Islands which were predicted by McBride and Byrnes (1997[4]) to last until 2174, yet these islands were both reduced to shoals by Hurricane Katrina in 2005.

The good news is that restoration efforts on other islands have shown benefits. McBride and Byrnes (1997[4]) predicted Timbalier Island would disappear by 2046, based on data through the 1980s. However, restoration completed just prior to Hurricanes Katrina and Rita added approximately 10 years of life to the island. Also, McBride and Byrnes (1997[4]) predicted that the Isles Dernieres would disappear by 2017; however, the CWPPRA barrier island restoration projects constructed on the islands have increased their life span by approximately 16 years. However, additional storms, increasing erosion rates, and predicted sea-level rise still need to be taken into account for designing future projects.

The Deepwater Horizon oil spill presented an entirely new challenge to coastal Louisiana. The

[4] McBride, R.A. and M.R Byrnes. 1997. Regional variations in shore response along barrier island systems of the Mississippi River delta plain: historical change and future prediction. Journal of Coastal Research 13(3):628-655.

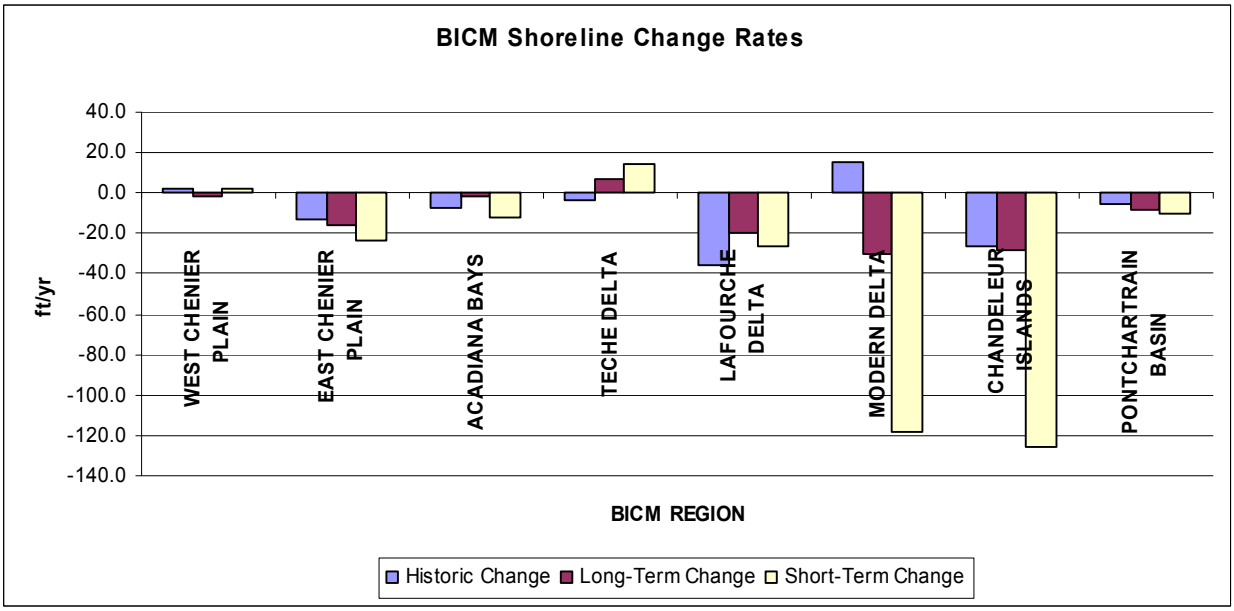


Figure 12. Average shoreline erosion rates for BICM Regions of the Louisiana Coast developed from aerial photography for Historic (1890's – 2005), Long-term (1930's – 2005), and Short-term (1996 – 2005) periods.

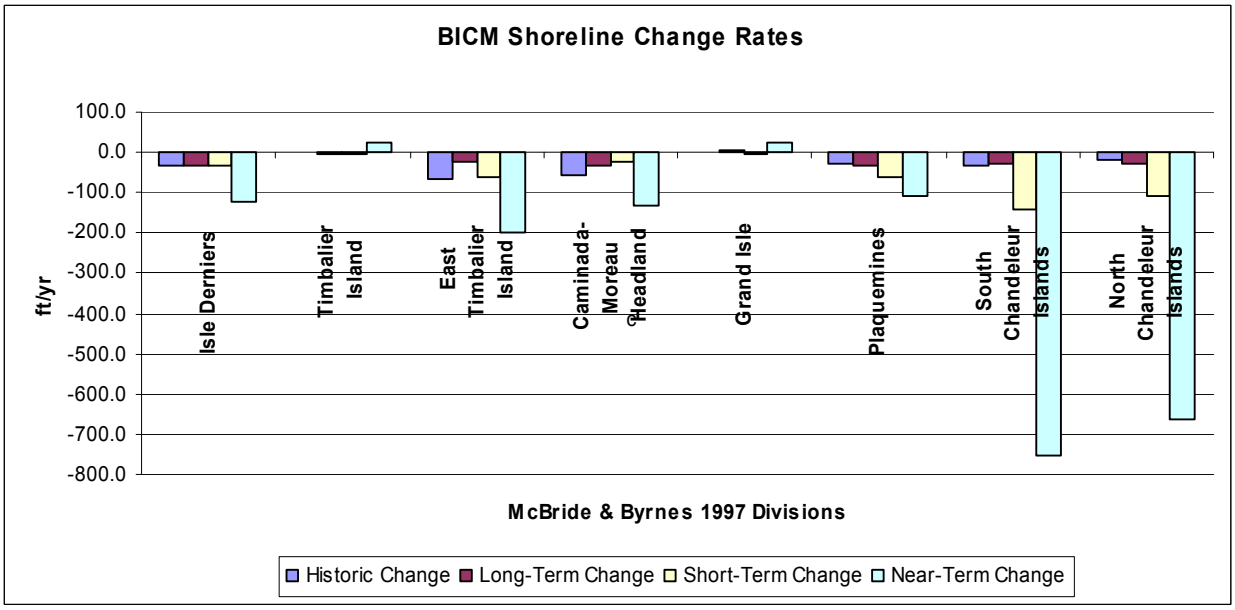


Figure 13. Average shoreline erosion rates for various sections of the Louisiana Coast including the direct impacts of Hurricanes Katrina and Rita (Near-Term 2004- 2005). Note that the Timbalier Island shoreline accreted due to the 2004/05 CWPPRA restoration project (TE-40) (McBride and Byrnes 1997[4]).

Table 1. Historical (1800's-2005), long term (1930's-2005), and short term (1996-2005) barrier island changes in acres and the projected date of disappearance (Martinez et al. 2009[2]).

Island	1800s	1922-30s	1996-98	2004	2005	Projected Year of Disappearance
Breton	820.4	669.7	212.3	128.7	43.6	2013
Chandeleur	6,827.50	6,140.60	4,333.10	2,789.60	913.9	2026
Grand Gossier/Curlew	1,119.40	71.7	595.5	75.2	0	
New Harbor	177.9	232.3	85.7	76.9	87	2135
North	1,455.50	966.2	125.8	77.1	79.7	2013
Freemason	538.7	247.1	28.8	17.6	4.8	2006
Isle Derniers	8,727.80	4,838.30	1,566.50	1,613.90	1,595.50	2033
Timbalier	3,669.50	2,646.50	1,147.40	1,028.40	1,069.40	2056
East Timbalier	476.9	229.8	311.7	311.4	245.3	2138
Grand Isle	2,616.80	2,347.50	2,439.50	2,232.00	2,286.00	2867
Grand Terre	4,198.30	2,614.40	1,093.40	1,021.10	997.7	2044
Shell Island	313.8	432.4	89.7	56.5	51	2029

State responded with a robust effort to safeguard its coast from the effects of the oil. In June 2010, the State began construction of barrier berms along the Chandeleur Islands east of the Mississippi River (East Barrier Berm) and from Shell Island to Scofield Island west of the river (West Barrier Berm). The construction of the Barrier Berm projects introduced a significant amount of material into the State's barrier island systems. To maximize this opportunity, the State plans to utilize the berm material and approximately $100 million of the funds set aside for berm construction to convert the temporary berm features into the more resilient barrier island features that were designed as CWPPRA projects. Pelican Island (BA-38) is already funded for construction through CWPPRA; consequently, Berm to Barrier funds will be used to augment the CWPPRA funds and construct a wider footprint if needed. The CWPPRA Scofield project (BA-40) will be constructed using Berm to Barrier funds. Additionally, the State is investigating additional restoration actions on Shell Island and the Chandeleur Islands.

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APPENDIX D

Hazard Mitigation Grant Program (HMGP) Projects

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APPROVED HAZARD MITIGATION GRANT PROGRAM PROJECTS

Project Number	Project Name	Parish	Project Cost	FEMA Status	Approval Date
1603-089-0012	Consolidated Culvert Improvements	St. Charles	$4,336,486	Approved	8/27/2010
1603-071-0036	Gentilly-Dillard University Drainage	Orleans	$6,500,000	Approved	8/31/2010
1603-103-0043	City of Slidell City Barn Pump Station	St. Tammany	$16,075,189	Approved, wating on approval letter	Allocated 8/27/2010 - Obligated 9/1/2010
1603-089-0020	Consolidated Pump Stations, Auto Bar Screen Cleaners, and Capacity Increase	St. Charles	$3,164,041	Approved	8/27/2010
1603-089-0026	Lakewood Pump Station Auto Bar Screen Cleaner	St. Charles	$1,544,752	Approved	12/2/2009
1603-093-0015	Disaster Response and Emergency Community Safe Room	St. James	$3,500,000 Fed. Share	Phase I Approved	2/26/2010
1603-022-0023	Leonard J. Chabert Medical Center Wind Retrofit	Terrebonne	$2,705,996 from OCPR.	Approved	9/9/2009
1603-087-0004	St. Bernard Parish Government Building Wind Retrofit	St. Bernard	$650,000	Approved	8/25/2009
1603-103-0058	City of Covington Hazard Mitigation Plan Update	St. Tammany	$65,000	Approved	7/14/2009
1603-057-0022	Emerald Park Drainage Improvements (Replaced with Timberland Pump Station)	Lafourche	Emerald Park Costs- $395,500 Timberland Pump Station Costs- $375,000	Approved	3/10/2010

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APPENDIX E

Inventory Of Non-State Projects

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ATTACHMENT A

Parish CIAP Projects

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PARISH CIAP PROJECTS

Program	State Project Number (Federal)	Project Name	Project Type	Agency/Sponsor	Senate District	House District	Parish	Acres Benefited	Construction Completion Date	Feasibility Cost	Engineering, Design, & Landrights Cost	Construction Cost	Project Summary	Planning Unit
CIAP	PO-39	Bald Cypress/Tupelo Coastal Forest Protection	LA	BOEMRE	18	88	Liv.	1,762	Pending	N/A	$260,443	$3,045,411	The project location is within Livingston Parish, in the Maurepas Swamp of southeast Louisiana. The project area includes 2,590.4 contiguous acres of coastal wetland forest, specifically bald cypress-tupelo swamp, with roughly 200 acres fronting the western edge of Lake Maurepas.	1
CIAP	PO-44	Blind River Freshwater Diversion Property Purchase	LA	BOEMRE	18	58	StJa.	68	Pending	N/A	N/A	$495,700	The St. James Parish Council intends to purchase a tract of land extending from the Mississippi River to the Parish Canal in order to secure the required property for a future freshwater diversion. This project will purchase approximately 68 acres of existing agriculture and wetland areas in order to accommodate a proposed freshwater siphon project.	1
CIAP	PO-45	East Bank Wastewater Assimilation Plant	MM	BOEMRE	18	57	StJa.	2,400	Pending	N/A	N/A	$1,003,078	This project will construct a wetland assimilation treatment plant which will collect wastewater from secondary treatment modules in Grand Point, Louisiana. It will pump the wastewater to the pond area that will discharge into seven acres of forested wetland areas that will directly affect 2,400 acres of wetlands.	1
CIAP	PO-43	East LaBranche Shoreline Protection	SP	BOEMRE	19	56	StC.	N/A	Pending	N/A	N/A	$2,409,745	This project involves the continuation of rock shoreline protection project on the south shore of Lake Pontchartrain in St. Charles Parish. The project will consist of installing approximately 15,300 linear feet of rock dike.	1
CIAP	PO-49	French Property Preservation Project	LA	BOEMRE	11	90	StT.	40	2009	N/A	N/A	$1,694,664	This project includes the acquisition of a 40 acre parcel composed of pine trees and mixed hardwoods with inclusion savannas, which lies between the I-12 Service Road and Bayou Liberty in Slidell, Louisiana. This project is to educate the public about the value of wetlands. Invasive plant species will be removed and nest boxes will be installed.	1
CIAP	PO-48	Green Property Preservation Project	LA	BOEMRE	11	90	StT.	27	Pending	N/A	N/A	$1,044,905	This project includes the acquisition of a 27.2 acre parcel to preserve a sensitive wetland composed of pristine cypress swamp and bottomland hardwoods from future commercial or residential development. It is located between Bayou Lacombe and the Tammany Trace linear park south of U.S. 190 in Lacombe, Louisiana within the Bayou Lacombe watershed.	1
CIAP	PO-40	Hydrologic Restoration in the West Lake Maurepas Swamps	HR	BOEMRE	18	88	Liv.	6,458	Pending	N/A	$607,850	$2,830,656	The Amite River is located southwest of Lake Maurepas and east of I-10. The objective of this project is to allow floodwaters to introduce additional fresh water, nutrients, and sediment into the western Maurepas Swamp. The exchange of flow would occur during flood events on the river and from runoff of localized rainfall events, and would in turn provide nutrients and sediment to facilitate organic sediment deposition in the swamp, some fluctuation of water levels, improve biological productivity, and prevent further swamp deterioration.	1
CIAP	BS-17	Lake Lery Rim Re-Establishment and Marsh Creation	MC	BOEMRE	1	103	StB.	300	Pending	N/A	$497,417	$6,063,794	The project proposes to dredge a waterway through Lake Lery historically used for navigation. The waterway is located approximately along the St. Bernard and Plaquemines Parish line. The project will utilize the dredged material and borrow areas in Lake Lery to create marsh in the open water areas north and east of the lake. It will also re-establish the lake rim by armoring the northern and eastern shoreline of Lake Lery using a rock dike.	1
CIAP	PO-52	Lake Pontchartrain Shoreline Protection	SP	BOEMRE	6	73	Tang.	N/A	Pending	N/A	$699,400	$5,882,716	The project is located in Tangipahoa Parish between Pass Manchac and the mouth of the Tangipahoa River. The goal of the proposed project is to construct approximately 12,000 linear feet of foreshore protection.	1
CIAP	PO-51	Mandeville Aquatic Ecosystem Restoration Project	MM	BOEMRE	11	89	StT.	N/A	2010	N/A	$1,845,300	$1,913,064	This project will include an upgrade of the existing wastewater treatment plant and construction of a discharge structure and piping system for wetland assimilation. It will construct 2.5 miles of force main for disbursement of treated effluent into 1.7 square miles of uninhabited wetland adjacent to the western border of the City of Mandeville.	1
CIAP	PO-70	Northshore Beach Marsh Creation/Restoration	MC	BOEMRE	11	90	StT.	600	Pending	N/A	N/A	$2,101,238	This project is located in the Pontchartrain Basin in St. Tammany Parish. Project features include approximately 600 acres of marsh creation via hydraulic dredging and placement of 2 million cubic yards of material. The likely borrow location is Lake Pontchartrain, the Hwy 11 Canal, and Bayou Bonfouca and associated canals. The objectives of this project are to create approximately 600 acres of intermediate marsh, reduce erosion of adjacent interior marshes, and maintain and support the integrity of the Lake Pontchartrain shoreline.	1
CIAP	PO-46	Reserve Relief Canal Shoreline Protection Project	SP	BOEMRE	19	57	StJo.	N/A	Pending	N/A	N/A	$2,013,057	The proposed project will consist of approximately 1,400 linear feet of shoreline protection extending in an easterly and westerly direction in St. John the Baptist Parish, where the Reserve Relieve Canal enters Lake Maurepas and entrance protection lining. The proposed feature consists of a foreshore rock dike with gaps for fish and public access to the lake shoreline.	1
CIAP	PO-41	Update of St. Bernard Parish Coastal Zone Management Plan	PL	BOEMRE	1	103	StB.	N/A	N/A	N/A	$200,000	N/A	Funds will be used so that the St. Bernard Parish Coastal Zone Management Plan may be updated.	1
CIAP	PO-71	Waterline Booster Pump Station, East Bank	INF	BOEMRE	18	58	StJa.	N/A	Pending	N/A	$16,100	$249,000	The project would construct a waterline booster pump along LA Hwy 44 in Convent, Louisiana in St. James Parish. The construction includes housing a 40 hp motor with a 1,100 gallon/minute high-service pump and connecting to the existing 10 inch PVC waterline at two locations in order to establish a loop and by-pass system. The station will have a metal building with a concrete floor to enclose the pump and electrical equipment.	1
CIAP	PO-42	West LaBranche Shoreline Protection	SP	BOEMRE	19	56	StC.	N/A	Pending	N/A	N/A	$1,506,789	This project involves the continuation of the rock shoreline protection project on the south shore of Lake Pontchartrain in St. Charles Parish. The project will consist of installing approximately 2,150 linear feet of rock dike on the existing shoreline and the construction of a 130-foot-long timber pile bridge at the mouth of Bayou LaBranche.	1
CIAP	PO-53	Wetland Wastewater Assimilation Process Planning	PL	BOEMRE	18	58	StJa.	N/A	N/A	N/A	$49,994	N/A	The study will develop a plan to allow wetland assimilation to provide tertiary treatment to wastewater while improving wetland quality. The study will analyze potential sites and set project goals. The final report will provide preliminary characterizations of the parish's wetland systems, their suitability for wastewater assimilation, an analysis of the wetlands's loading and assimilation capacities, and capabilities of the wetlands and preliminary engineering and cost analyses.	1
CIAP	BA-50	Bayside Segmented Breakwaters at Grand Isle	SP	BOEMRE	8	105	Jef.	N/A	Pending	N/A	$307,709	$2,989,653	The project is located in Jefferson Parish, Louisiana, along the bay side of Grand Isle, Louisiana. The purpose of this project is to reduce erosion on the bay side of Grand Isle. Twenty-four 300 foot breakwaters (approximately 1.5 miles) will be constructed on the back-bay side of Grand Isle.	2

PARISH CIAP PROJECTS

Program	State Project Number (Federal)	Project Name	Project Type	Agency/Sponsor	Senate District	House District	Parish	Acres Benefited	Construction Completion Date	Feasibility Cost	Engineering, Design, & Landrights Cost	Construction Cost	Project Summary	Planning Unit
CIAP	BA-60	Baytree Freshwater Diversion Property Purchase	LA	BOEMRE	18	58	StJa.	63	Pending	N/A	N/A	$460,174	The St. James Parish Council intends to purchase a tract of land extending from the Mississippi River to the Parish Canal in order to secure the required property for a future freshwater diversion. This project is proposed to purchase approximately 63 acres of existing agriculture and wetland areas in order to accommodate a proposed freshwater siphon project.	2
CIAP	BA-65	Fifi Island Restoration Extension	BI	BOEMRE	8	105	Jef.	6	Pending	N/A	$272,394	$2,553,917	The project is located at the eastern tip of Fifi Island, adjacent to Bayou Rigaud, on the northern side of Grand Isle. The project would provide approximately 2,200 linear feet of rock dike protection and create approximately 6 acres of marsh. Additionally, the project will provide protection to the bay side of Grand Isle.	2
CIAP	BA-51	Goose Bayou Ridge Creation and Shoreline Protection	SP	BOEMRE	8	105	Jef.	1,200	Pending	N/A	$419,516	$3,348,901	This project located in Lafitte, Jefferson Parish Louisiana, will improve shoreline protection by creating over 8,000 linear feet of additional shoreline through the use sediment from the Mississippi River, and vegetative planting, along the west side of Goose Bayou. This project will help establish a wetland ridge which will function as habitat for native species of plants and animals.	2
CIAP	BA-64	Jump Basin Dredging and Marsh Creation	MC	BOEMRE	1	105	Plaq.	7	Pending	N/A	N/A	$800,000	The proposed project is located in the Venice area of Plaquemines Parish, and more specifically in the Jump Basin Marina and along the west side of Tidewater Road. The proposed project would use material dredged from the marina to create marsh on the west side of Tidewater Road. Based on preliminary surveys, it is predicted that approximately 65,000 cubic yards of material could be dredged from the marina. Based on water depths in the target area, an initial estimate of 4 to 7 acres of marsh could be created.	2
CIAP	BA-52	Lower Lafitte Shoreline Stabilization at Bayou Rigolettes	SP	BOEMRE	8	105	Jef.	N/A	Pending	N/A	$387,986	$4,039,903	This project located within Lafitte, Louisiana will help protect the integrity of wetlands within the Barataria Basin and reduce saltwater intrusion and deterioration of interior marsh. Over 10,600 linear feet of foreshore rock revetment will be constructed, along with a water control structure in order to protect the interior marshes.	2
CIAP	BA-53	Maritime Forest Ridge Restoration	MC, VP	BOEMRE	20	54	Laf.	60	N/A	N/A	$700,000	N/A	Distributary ridges and chenier ridges along the coast of Louisiana are disappearing at an alarming rate. Projects such as these help establish ridge habitats and associated wetlands which are extremely important for millions of migrating Neo-tropical songbirds that cross the Gulf of Mexico, in addition to providing wetland habitat for coastal plant and animal species.	2
CIAP	BA-54	Northwest Little Lake Marsh Creation and Enhancement	DM, MC, VP	BOEMRE	20	54	Laf.	100	2010	N/A	$222,430	$2,209,910	This project, located in Lafourche Parish, will use dedicated dredge material to create 30-40 acres of wetlands in interior open water bodies (enhancing 70-100 acres of marsh) and plant 2 rows of smooth cordgrass along approximately 7,500 linear feet of the lake shoreline.	2
CIAP	BA-63	Small Dredge Program	DM, MC	BOEMRE	20	54	Laf.	175	2010	N/A	$160,250	$2,065,934	This program involves the use of a small dredge to hydraulically dredge borrow canals and other open water areas to restore approximately 175 acres of marsh apron along levees, cheniers and roadways in Lafourche Parish.	2
CIAP	BA-57	Tidewater Road Flood Protection	INF	BOEMRE	1	105	Plaq.	N/A	Pending	N/A	N/A	$3,364,310	Tidewater Road is subject to heavy inundation from directional winds that elevate tides over the roadway. Wetland loss in the area is severe, and along much of Tidewater Road's length there is open water in canals and ponds that abut the road shoulder. Tidewater Road is an important access point for the oil and gas industry. This project also proposes to create flood protection along the entire length of Tidewater Road.	2
CIAP	BA-56	Update of the Plaquemines Parish Coastal Management Plan	PL	BOEMRE	1	105	Plaq.	N/A	N/A	N/A	$300,000	N/A	Funds will be allocated to the Parish so that they may update their coastal management plan.	2
CIAP	BA-59	Waterline Booster Pump Station, West Bank	INF	BOEMRE	18	58	StJa.	N/A	2009	N/A	$150,000	$106,700	This project would construct a waterline booster pump station in Welcome, Louisiana. The proposed site is located near Section 43, T-11-S, R-3-E, along LA Hwy 18. The proposed construction includes the installation of a 40 hp electric motor with a 1,100 gpm high-service pump. The booster pump will be built along the existing waterline and be tied in at two places in order to establish a loop and by-pass system with 10-inch in-line valves. The station will have a metal building with a concrete floor to fully enclose and protect the pump and electrical equipment.	2
CIAP	BA-62	West Bank Wastewater Assimilation Plant	MM	BOEMRE	18	58	StJa.	2,400	Pending	N/A	N/A	$1,488,760	The St. James Parish Council plans to construct a wetland assimilation treatment plant on property owned by the Parish Council in Vacherie, Louisiana. The plant will collect wastewater from secondary treatment modules and pump the wastewater to a sediment pond area. The nine acre pond will discharge into 2,400 acres of forested wetland areas that will directly affect the swamp's composition and structure.	2
CIAP	BA-61	West Bank Wetland Conservation and Protection	LA	BOEMRE	18	58	StJa.	235	2010	N/A	N/A	$718,620	The St. James Parish Council would like to purchase several large tracts of existing wetlands to prohibit the destruction of, and aid in the protection of, the parish's coastal wetland areas. This project proposes to purchase approximately 235 acres of existing wetlands from the Bayou Chevreuil Land Co., LLC.	2
CIAP	PO-90	West Lac Des Allemands Shoreline Protection	SP	BOEMRE	18	58	StJo.	N/A	Pending	N/A	N/A	$3,835,459	The proposed project will consist of 7,535 feet of shoreline protection, extending from "Pleasure Bend" westward to Pointe Aux Herbes, along the western shore of Lac des Allemands, St. John the Baptist Parish, Louisiana. The proposed feature consists of foreshore rock dike with gaps for fish and public access to the lake shoreline.	2
CIAP	TE-59	Attakapas Canal Hydrologic Restoration	DM, HR, VP	BOEMRE	21	60	Asu.	12	Pending	N/A	$48,000	$977,000	This project will remove excessive accumulated sediment from Attakapas Canal at its intersection with Lake Verret in Assumption Parish for a distance of approximately 2,000 feet improving water quality, fisheries habitat, and sport fishing access. The removed sediment will be beneficially used to restore approximately 12 acres of bald cypress habitat along the shoreline of Lake Verret. As part of the project, cypress trees will be planted at the rate of 302 trees per restored acre.	3a
CIAP	TE-63	Falgout Canal Freshwater Enhancement (Phase I)	HR	BOEMRE	20	51	Ter.	5,000	Pending	N/A	$449,603	$5,601,471	The proposed project area is located in the Terrebonne Basin in the marshes adjacent to Falgout Canal, between Bayou Dularge and the Houma Navigation Canal (HNC). This project would include construction/modification of an inlet structure at a site located on the HNC north of Falgout Canal, modeling of the basin, along with channel improvements, as necessary, to improve efficiency of freshwater flow within the basin area.	3a
CIAP	TE-60	Lake Verret Swamp and Lake Rim Restoration	DM, MC	BOEMRE	21	60	Asu.	40	Pending	N/A	$115,000	$4,648,906	Located in west-central Assumption Parish, Lake Verret accumulates sediment in its shallow areas. The proposed project will use a hydraulic dredge to remove material that will be used beneficially. The project objective is to remove accumulated sediment from Lake Verret and improve the condition of 40 acres of deteriorating lake rim and adjacent swamp habitat.	3a
CIAP	AT-08	Bayou Amy Boat Launch and Educational Pavilion	PA	BOEMRE	22	46	StMt.	N/A	Pending	N/A	$47,950	$342,050	This project located in St. Martin Parish will construct an open-air pavilion and a 1,235 foot long nature trail adjacent to an existing wilderness canoe trail. This project will serve as a gateway to the Atchafalaya Basin providing public access, information and educational opportunities. It will ultimately tie into Lake Fausse Point State Park.	3b

PARISH CIAP PROJECTS

Program	State Project Number (Federal)	Project Name	Project Type	Agency/Sponsor	Senate District	House District	Parish	Acres Benefited	Construction Completion Date	Feasibility Cost	Engineering, Design, & Landrights Cost	Construction Cost	Project Summary	Planning Unit
CIAP	AT-10	Beau Bayou Water Quality and Sediment Reduction	HR, SNT	BOEMRE	22	46	StMt.	23,000	Pending	N/A	N/A	$3,717,376	This project consists of a combination of multiple actions including dredging, gapping and creating inline-sediment traps in and adjacent to Beau Bayou in St. Martin Parish. This will correct existing sediment overload and lack of oxygen (hypoxia) improving fisheries habitat as well as the overall health of the system.	3b
CIAP	TV-37	Burns Point Recreation Park Improvements	SP	BOEMRE	21	50	StM.	N/A	2011	N/A	N/A	$1,010,000	This project in St. Mary Parish at the Burns Point Recreation Park adjacent to East Cote Blanche Bay, will provide a 600 foot sheet bulkhead and walkway along the park's shoreline. This will stop the rapid erosion that is occurring at the park's shoreline and provide access for inspection.	3b
CIAP	AT-07	Deer Island Pass Realignment	DM, HR, MC	BOEMRE	21	51	StM.	50	Pending	N/A	$313,413	$2,440,352	Located in St. Mary Parish, this project near the mouth of Deer Island Bayou will dredge a 5,280 foot long, 280 foot wide channel to improve water and sediment flow into northeast Atchafalaya Bay. The dredged material will be beneficially used to reduce shoreline erosion and to create about 30 acres of marsh.	3b
CIAP	TV-46	Henry Hub Access Improvements - Charlie Field Road Bridge Replacement	INF	BOEMRE	26	49	Ver.	N/A	Pending	N/A	$67,000	$407,999	This project will replace an existing three span timber bridge with a four span concrete deck bridge for the Charlie Field Road Bridge across a tributary of Bayou Tigre. The bridge is located approximately 2,300 feet south of LA Hwy. 14, in eastern Vermilion Parish.	3b
CIAP	TV-50	Henry Hub Access Improvements - Charlie Field Road Improvements	INF	BOEMRE	26	49	Ver.	N/A	Pending	N/A	$87,270	$442,000	This project provides for the widening and reconstruction of Charlie Field Road, a vital link between LA 14 and the Henry Hub, from LA Hwy. 14 to LA Hwy. 331 in eastern Vermilion Parish. The project will widen the existing 18-foot wide roadway to a 20-foot surface for approximately 4,100 feet to provide room for the truck traffic to utilize this stretch of the roadway to access the Henry Hub.	3b
CIAP	TV-44	Henry Hub Acess Improvements - Highway 331 Realignment	INF	BOEMRE	26	49	Ver.	N/A	Pending	N/A	$39,500	$235,500	This project will realign approximately 2,000 linear feet of LA Hwy 331, at a location approximately 3 miles south of LA Hwy 14. This segment of the roadway has a reverse curve that represents a safety hazard for traffic traveling this highway to the Henry Hub.	3b
CIAP	TV-49	Intracoastal City Street Improvements	INF	BOEMRE	26	47	Ver.	N/A	Pending	N/A	$51,400	$469,416	This project provides for the reconstruction of several roadways in the Intracoastal City area to mitigate the damage caused by heavy oilfield support truck traffic over the years. The streets to be improved are as follows: Offshore Road (4,700 linear feet), M. I. Liquid Road (850 linear feet), Barge Road (1,450 linear feet), Teal Road (1,200 linear feet).	3b
CIAP	TV-32	Lake Sand Terracing	MC, SP	BOEMRE	22	49	Ibe.	55	Pending	N/A	$66,500	$869,842	The project is located in Iberia Parish on the Marsh Island State Wildlife Refuge, and will construct approximately 55 acres of shallow bay bottom terraces planted with native vegetation. The construction of the terraces will result in the direct creation of 34 acres of marsh and it is anticipated that construction of the terraces will result in a 50% reduction in the erosion of the neighboring shoreline.	3b
CIAP	TV-33	Lake Tom/Lake Michael Terracing	MC, SP	BOEMRE	22	49	Ibe.	55	Pending	N/A	$66,500	$869,842	The project is located in Iberia Parish on the Marsh Island State Wildlife Refuge, and will construct approximately 55 acres of shallow bay bottom terraces planted with native vegetation. The construction of the terraces will result in the direct creation of 55 acres of marsh and it is anticipated that construction of the terraces will result in a 50% reduction in the erosion of the neighboring shoreline.	3b
CIAP	TV-53	North Prong Schooner Bayou	FD, SP	BOEMRE	26	49	Ver.	N/A	2010	N/A	$54,277	$1,595,723	This project is located on the east bank of the North Prong of Schooner Bayou, from the GIWW to the Schooner Bayou Locks. With several breaches to contain, the project will employ culverts with flap gates to allow the freshwater flow to continue into the marshes to the east, while preventing uncontrolled saltwater intrusion into the Mermentau Basin.	3b
CIAP	TV-51	Oyster Reef Parallel to Cheniere au Tigre	SP	BOEMRE	26	47	Ver.	N/A	Pending	N/A	$209,800	$1,229,184	This project will create a one mile oyster reef 1,300 feet from shore by using approved available materials. Oyster spat are plentiful in this area; therefore, creating this base will establish a living sustainable reef. This project will reduce the shoreline loss rate by half. It will slow down wave energy, attract fish and shellfish habitat, slow coastal erosion, and increase recreational fishing opportunities.	3b
CIAP	TV-36	Planning Assistance and Administration (St. Mary Parish)	PL	BOEMRE	21	50	StM.	N/A	N/A	N/A	$25,000	N/A	This project will provide necessary financial assistance to St. Mary Parish Government to manage and implement the CIAP program.	3b
CIAP	AT-06	Point Chevreuil Shoreline Protection	MC, SP	BOEMRE	21	50	StM.	25	Pending	N/A	$204,461	$1,655,704	The project is located in Region 3, Atchafalaya River Basin, St. Mary Parish, along the southeastern shoreline of East Cote Blanche Bay, around Point Chevreuil and the northwestern shoreline of Atchafalaya Bay. The eroding shoreline was caused by the open water fetch and resulting wave energy from East Cote Blanche and Atchafalaya Bays. Project features will protect the natural ridge functions of the Bayou Sale Ridge and protect the adjacent marshes.	3b
CIAP	TV-25	Port of Iberia Bridge Replacement - Port Road over Rodere Lateral	INF	BOEMRE	22	49	Ibe.	N/A	Pending	N/A	$66,465	$503,535	The project is located in Iberia Parish, and will aid the Port of Iberia in its day-to-day operations. This project will replace the bridge on Port Road over Rodere Lateral. The existing bridge is approximately 28 feet wide and 60 feet long. The Port of Iberia handles a substantial amount of OCS produced products and the large equipment used in transporting these products take a major toll on the port's bridges and roadways.	3b
CIAP	TV-45	Shoreline Protection and Marsh Creation at Tiger Point	SP	BOEMRE	26	47	Ver.	N/A	Pending	N/A	N/A	$1,385,585	This project will install 1,500 feet of cement bags at Tiger Point in Vermilion Parish to slow erosion rates by half.	3b
CIAP	TV-41	Shoreline Protection on Southwest Point at Southwest Pass	SP	BOEMRE	26	47	Ver.	N/A	N/A	N/A	$217,782	N/A	This project is located in Vermilion Parish. The goal of the project is to armor the shoreline via 8,759 linear feet of onshore revetment for the south shoreline of Vermilion Bay at Southwest Point. The funds allocated in the current project would be used to initiate surveying, geotechnical investigation, engineering, design and permit development so that when additional funds become available this project will be able to proceed to construction in a more-timely manner.	3b
CIAP	AT-09	Stephensville Wastewater Assimilation and Facility Restoration	MM	BOEMRE	21	50	StMt.	5	Pending	N/A	N/A	$2,200,002	This project will include an upgrade of the existing wastewater treatment plant infrastructure and construction of a discharge structure and piping system into the adjacent wetlands for wetland assimilation. Stephensville's wastewater facility is located in Stephensville along Bayou Milhomme in Lower St. Martin Parish.	3b
CIAP	TV-38	Thorguson Road Improvements	INF	BOEMRE	21	50	StM.	N/A	Pending	N/A	$134,000	$1,018,761	The project is located in Berwick and extends to Morgan City in St. Mary Parish. This project will upgrade Thorguson Road from Hwy 90 to the River Road; as a result, the project will increase capacity, and improve safety and efficiency during normal operations. The road improvement feature includes the widening of the existing road. The preliminary project benefit is to provide improved traffic flow and safety while increasing roadway access to the industrial and commercial facilities located in Berwick, Louisiana.	3b
CIAP	TV-35	Vermilion Bay Shoreline Restoration	SNT, SP	BOEMRE	22	49	Ibe.	132	Pending	N/A	$330,000	$4,662,196	The project is located along the Vermilion Bay Shoreline south of Tigre Lagoon; it will establish approximately 8,300 linear feet of shoreline using the wave dampening structure determined to be most feasible. These structures will also allow for sediment trapping and accretion.	3b

PARISH CIAP PROJECTS

Program	State Project Number (Federal)	Project Name	Project Type	Agency/Sponsor	Senate District	House District	Parish	Acres Benefited	Construction Completion Date	Feasibility Cost	Engineering, Design, & Landrights Cost	Construction Cost	Project Summary	Planning Unit
CIAP	TV-40	Vermilion Parish CZM Planning and Development	PL	BOEMRE	26	47	Ver.	N/A	N/A	N/A	$100,000	N/A	Funds will be available to assist Vermilion Parish in improvements to the Coastal Zone Management plan for the parish.	3b
CIAP	TV-24	Weeks Bay/Commercial Canal Marsh Creation and Shoreline Protection	MC, SNT	BOEMRE	22	49	Ibe. Ver.	N/A	N/A	$200,000	N/A	N/A	Feasibility Study of methods of marsh creation to build landmass and create vegetated wetlands. Project will evaluate various methods to create a sediment deposition field and protect the existing shoreline. This will enhance natural processes to create landmass between Weeks Bay and the GIWW and protect it.	3b
CIAP	CS-48	Bank Stabilization: Dugas Cut to Kelso Bayou	SP	BOEMRE	25	47	Cam.	N/A	N/A	N/A	$580,000	N/A	This project will provide the engineering and design in order to continue the construction of approximately two miles of rip-rap dike from Dugas Landing to Kelso Bayou and reclaim eroded channel bank utilizing spoil material from dredging activities when more funding becomes available to the parish.	4
CIAP	CS-38	Black Lake Ecosystem Restoration	DM, MC	BOEMRE	25	47	Cal.	650	2010	N/A	N/A	$1,339,805	Creation of approximaetly 200 acres marsh through beneficial use of dredged material from the Calcasieu Ship Channel.	4
CIAP	CS-52	CIAP - Clear Marais Bank Protection	SP	BOEMRE	30	36	Cal.	1,500	Pending	N/A	$165,400	$1,825,000	The project is located north of the Gulf Intracoastal Waterway (GIWW) approximately 10 miles northwest of Hackberry in Calcasieu Parish, Louisiana. The goal of this project is to extend the rock armored shoreline stabilization by one mile adjacent to the GIWW to prevent continued erosion of the GIWW levee and to prevent the encroachment of the GIWW into the marshes north.	4
CIAP	CS-43	Dreary Island Restoration	HR, MM	BOEMRE	25	47	Cam.	600	Pending	N/A	$40,643	$522,208	This project features include: 1) the replacement of one existing 24 inch water control structure that is currently not functioning due to storm impacts and 2) the refurbishment of approximately 4,000 linear feet of adjacent levees. The new structures will reduce saltwater intrusion into the project area and restore historic salinity and hydrologic regimes. Without this project the 600-acre intermediate and brackish marsh will experience extensive interior marsh loss.	4
CIAP	CS-50	East Little Pecan Bayou Restoration	HR	BOEMRE	26	47	Cam.	1,500	2010	N/A	$37,611	$638,030	This project is located along Little Pecan Bayou in the south central portion of Cameron Parish. Project features include the installation of one bulkhead with four 48 inch water control structures at the location of an existing plug. The objective of the proposed project is to repair the water control structures so that pre-Hurricane Rita salinity and water levels can be restored to approximately 1,500 acres of marsh.	4
CIAP	CS-41	Horseshoe Lake Marsh Restoration	HR, SP	BOEMRE	30	33	Cal.	1,200	Pending	N/A	$350,000	$1,650,000	The project is a 1,200 acre marsh restoration/protection project located in Calcasieu Parish, Louisiana, approximately 3.0 miles northwest of Hackberry. This project proposes four different components: 1) two water control structures; 2) four miles of new levee construction; 3) repair of 1 mile of existing levee on the eastern and western boundaries; and 4) placement of approximately four miles of rip rap rock dike along the Gulf Intracoastal Waterway (GIWW).	4
CIAP	CS-51	Little Chenier Road	HR, INF	BOEMRE	25	47	Cam.	N/A	2010	N/A	$16,493	$262,888	This project is located on the east end of Little Chenier Road and south of the Big Burn Marsh. Approximately 2,700 linear feet of roadway needs to be raised approximately two feet to an elevation of +4 feet NAVD, to prevent excessive flooding south of the Little Chenier Road by stopping water from overtopping the road during abnormally heavy rain events and flooding the marshes south of Little Chenier Road.	4
CIAP	ME-30	North Mermentau Restoration	HR, SP	BOEMRE	25	47	Cam.	10,000	Pending	N/A	$211,141	$3,006,631	This project will replace 12 existing water control structures that are not currently functioning as designed and also refurbish 1.5 miles of adjacent levees. Cameron Parish will purchase the structures that will be installed by the local gravity drainage district. The objective is to restore the pre-Hurricane Rita salinity and water levels to approximately 10,000 acres of marsh.	4
CIAP	CS-44	Rabbit Island	DM, MC, SP	BOEMRE	25	47	Cal. Cam.	200	Pending	N/A	$440,540	$1,559,460	The project is located in the Calcasieu-Sabine Basin, in the West Cove of Calcasieu Lake. The goal of the project is to restore approximately 200 acres of pelican nesting and marsh habitat to Rabbit Island by adding sediment, through the beneficial use of sediment dredged from the Calcasieu Ship Channel, and 2,500 linear feet of small limestone shoreline protection to the west corner of Rabbit Island.	4
CIAP	CS-36	Shoreline Protection at Intracoastal Park	SP	BOEMRE	27	36	Cal.	3	Pending	N/A	N/A	$1,000,000	This is a two phase project that is located on the south side of the Gulf Intracoastal Waterway at LA Hwy 27 south. The goal of the project is to restore the existing rock shoreline protection and stabilization for approximately 1,000 feet by placing cellular concrete block revetment along the existing shoreline.	4
CIAP	CS-37	South GIWW Restoration	HR, SP	BOEMRE	30	36	Cal.	2,500	Pending	N/A	$70,000	$548,532	This project features include the relocation of two existing water control structures (48 inch culverts) that are currently not functioning as designed; the installation of a new water control structure (two 36 inch culverts); and the refurbishment of three miles of adjacent levees.	4
CIAP	CS-42	South Johnson Bayou Restoration	HR, MM	BOEMRE	25	47	Cam.	N/A	Pending	N/A	$46,135	$626,565	This proposal refers to the Chenier Plain portion of Coast 2050, Region 4, Johnson's Bayou Ridge mapping unit. The project features include the replacement of existing water control structures (two 24 inch culverts) that are currently not functioning as designed, and the refurbishment of one mile of adjacent levees.	4
CIAP	ME-27	South Little Pecan Bayou Restoration	HR, SP	BOEMRE	25	47	Cam.	24,600	Pending	N/A	$133,641	$1,735,121	This proposal refers to the Chenier Plain portion of Coast 2050, Region 4, Little Pecan mapping unit. Project features include the replacement of three existing water control structures (three 4 inch culverts) that are currently not functioning as designed, one new water control structure (that includes three 48 inch culverts), and the refurbishment of portions of three miles of existing levees (adding in some locations 2 feet of material to return the levees to +3 feet NAVD).	4
CIAP	ME-26	West Big Burn Bridge Restoration	HR	BOEMRE	25	47	Cam.	10,000	2010	N/A	$52,572	$970,138	This proposal refers to the Chenier Plain portion of Coast 2050, Region 4, Big Burn mapping unit. Project features include the replacement of one existing water control structure (three 8-foot bays) that is currently not functioning as designed.	4

Project Type: BI=Barrier Island; DM=Beneficial Use of Dredged Material; FD=Freshwater Diversion; HP=Hurricane Protection; HR=Hydrologic Restoration; INF=Infrastructure; LA=Land Acquisition; MC=Marsh Creation; MM=Marsh Management; OM=Outfall Management; PA=Public Access; PL=Planning; SD=Sediment Diversion; SNT=Sediment and Nutrient Trapping; SP=Shoreline Protection; VP=Vegetation Planting.

Agency/Sponsor: BOEMRE=Bureau of Ocean Energy Management, Regualtion, and Enforcement.

Parish: Asc.=Ascension, Asu.=Assumption, Cal.=Calcasieu, Cam.=Cameron, Ibe.=Iberia, Jef.=Jefferson, Laf.=Lafourche, Liv.=Livingston, Orl.=Orleans, StC.=St. Charles, StJa.=St. James, StJo.=St. John the Baptist, StM.=St. Mary, StMt.=St. Martin, StT.=St.Tammany, Tan.=Tangipahoa, Ter.=Terrebonne, Plaq.=Plaquemines, Ver.=Vermilion.

ATTACHMENT B

Federal Protection Projects

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EAST JEFFERSON LEVEE DISTRICT LEVEE ALIGNMENTS & STRUCTURES

Legend

Levee Construction Type

- Earthen Levee
- I-Wall
- Sheet Pile
- Control Structure
- Control Structure
- Flood Gate
- Pump Station
- Water Bodies

CPRA
Coastal Protection and Restoration Authority of Louisiana

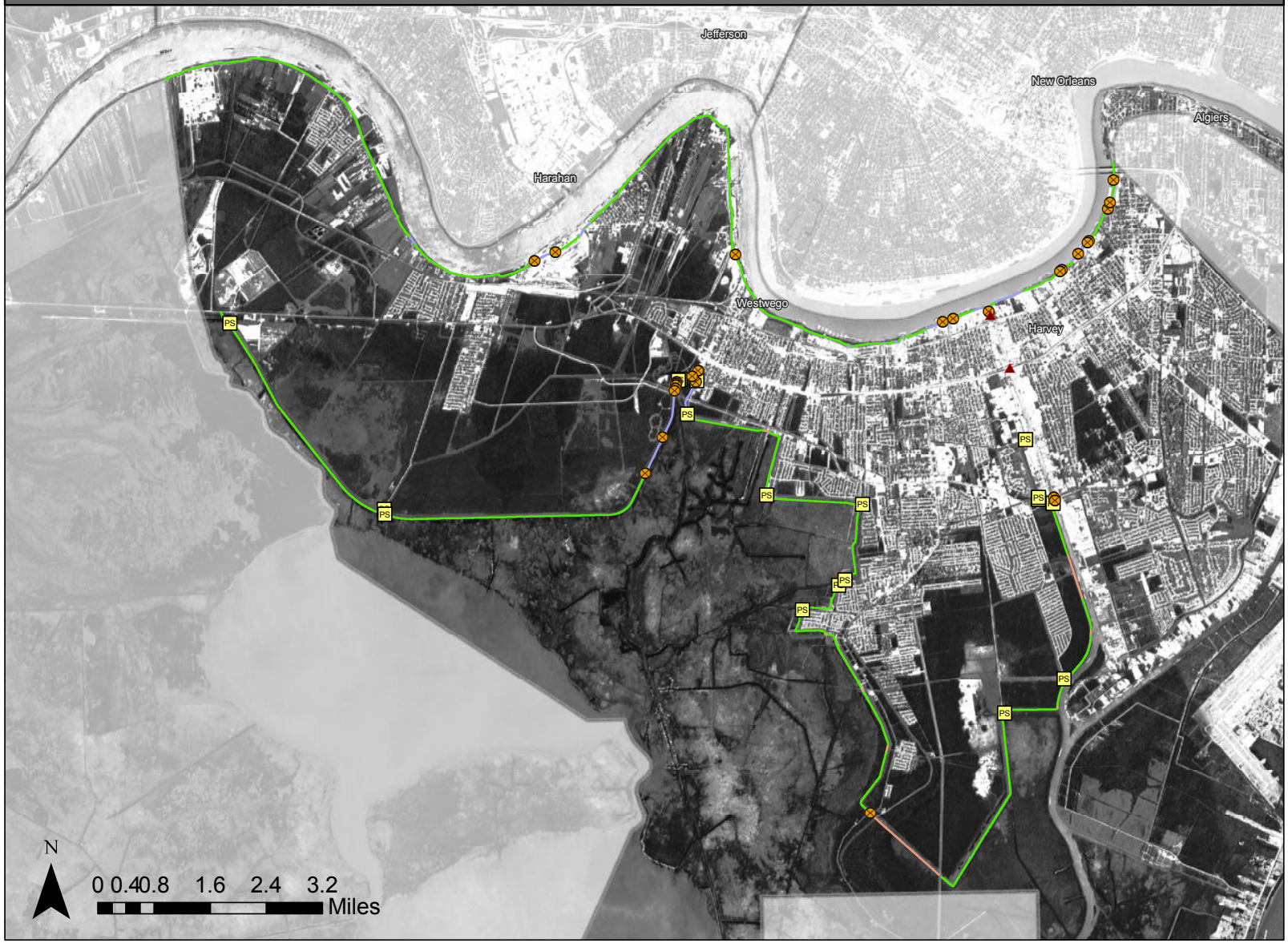
Map by: Louisiana Office of Coastal Protection & Restoration

Date: April 28, 2009

Imagery: 2000 SPOT

Data Sources:
USACE
LA OCPR

WEST JEFFERSON LEVEE DISTRICT LEVEE ALIGNMENTS & STRUCTURES



Legend

Levee construction types

- Earthen Levee
- I-Wall
- Sheet Pile
- Control Structure
- Flood Gate
- Pump Station
- Water Bodies

Map by: Louisiana Office of Coastal Protection & Restoration

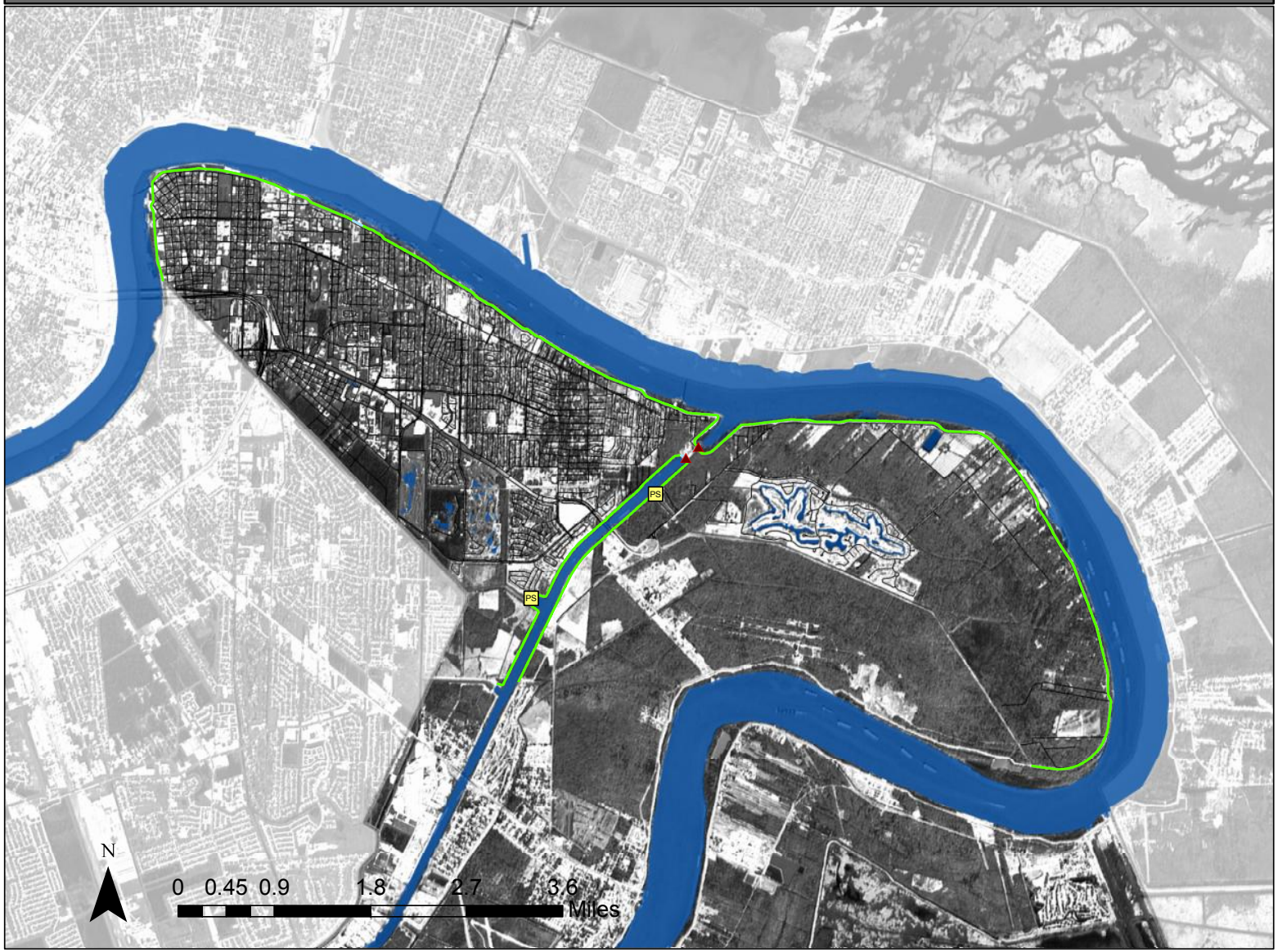
Date: April 28, 2009

Imagery: 2000 SPOT

Data Sources:
USACE
LA OCPR

CPRA
Coastal Protection and Restoration Authority of Louisiana

ALGIERS LEVEE DISTRICT LEVEE ALIGNMENTS & STRUCTURES



Legend

Levee Construction Type

- Earthen Levee
- I-Wall
- Control Structure
- Control Struture
- Pump Station
- Water Bodies

CPRA
Coastal Protection and Restoration Authority of Louisiana

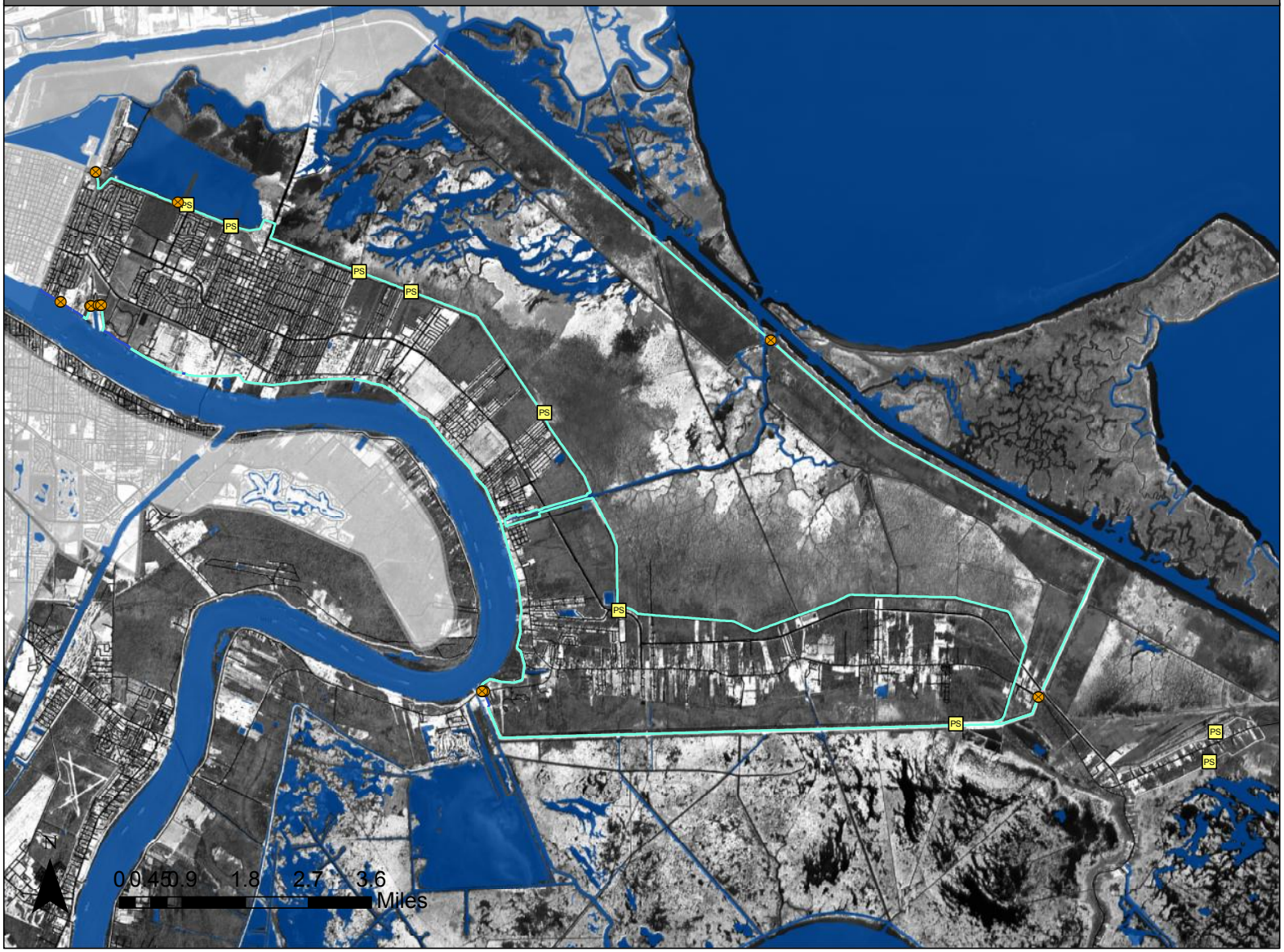
Map by: Louisiana Office of Coastal Protection & Restoration

Date: April 28, 2009

Imagery: 2000 SPOT

Data Sources:
USACE
LA OCPR

LAKE BORGNE BASIN LEVEE DISTRICT LEVEE ALIGNMENTS & STRUCTURES



Legend

Levee Construction Type

- Earthen Levee
- I-wall
- Control Structure
- Flood Gate
- Pump Station
- Water Bodies

CPRA
Coastal Protection and Restoration Authority of Louisiana

Map by: Louisiana Office of Coastal Protection & Restoration

Date: April 28, 2009

Imagery: 2000 SPOT

Data Sources:
USACE
LA OCPR

ORLEANS LEVEE DISTRICT LEVEE ALIGNMENTS & STRUCTURES

Legend

- Earthen Levee
- I-Wall
- T-Wall
- L-Wall
- Sheet Pile
- Control Stucture
- Flood Gate
- Pump Station
- Water Bodies

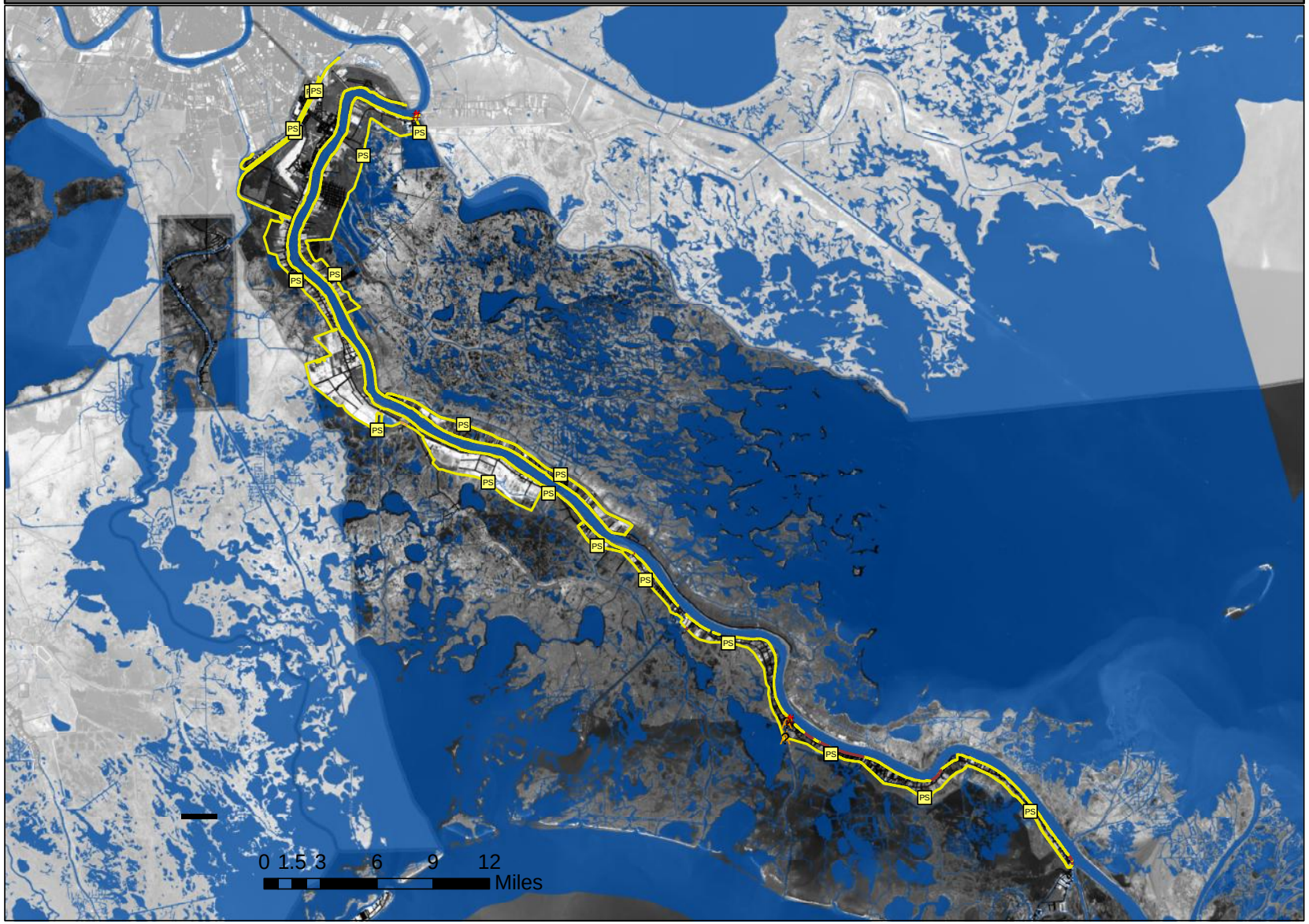
Map by: Louisiana Office of Coastal Protection & Restoration

Date: April 28, 2009

Imagery: 2000 SPOT

Data Sources:
USACE
LA OCPR

PLAQUEMINES PARISH GOVERNMENT LEVEE ALIGNMENTS & STRUCTURES



Legend

Levee Construction Type

- Control Structure
- Earthen Levee
- I-Wall
- Sheet Pile
- T-Wall
- # Control Structure
- ? Flood Gate
- PS Pump Station
- Water Bodies

CPRA
Coastal Protection and Restoration Authority of Louisiana

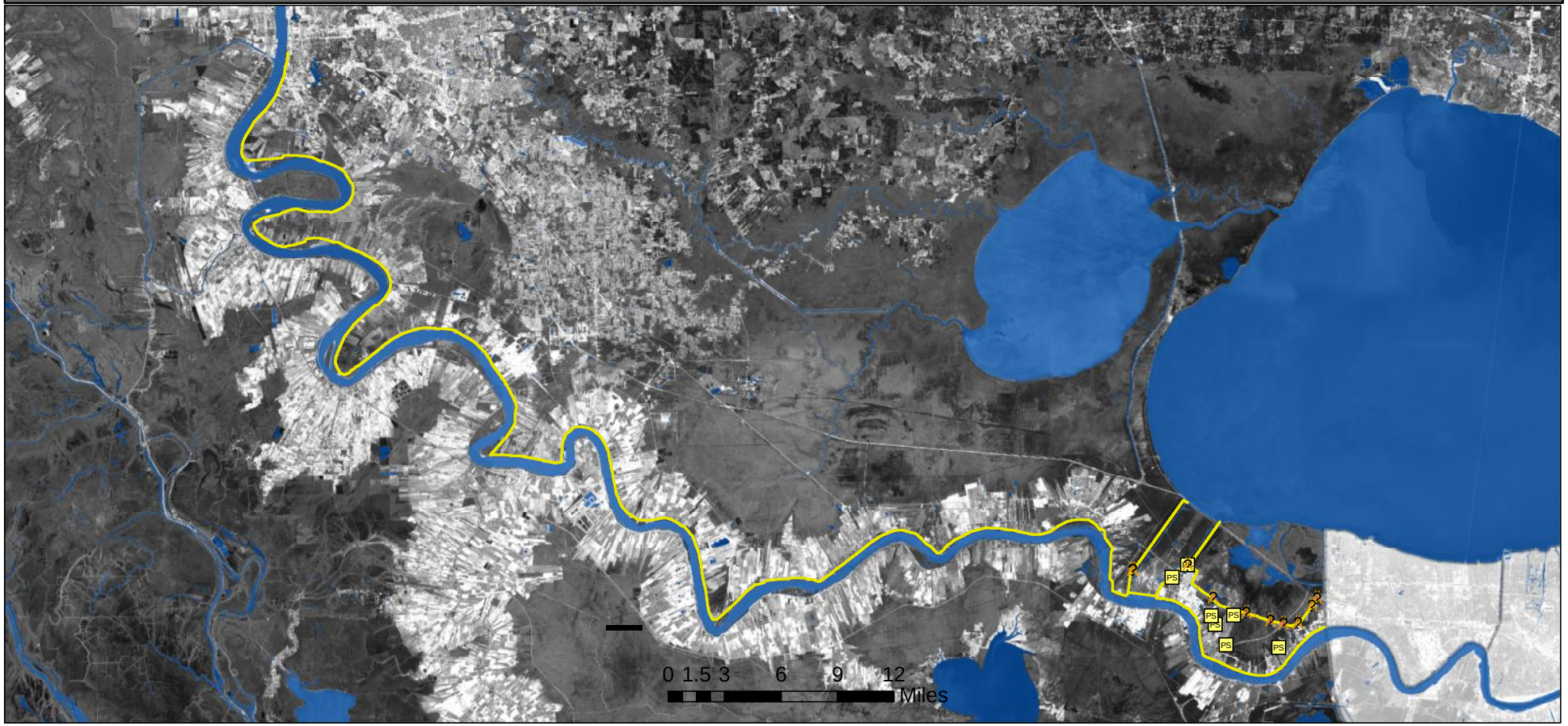
Map by: Louisiana Office of Coastal Protection & Restoration

Date: April 28, 2009

Imagery: 2000 SPOT

Data Sources:
USACE
LA OCPR

PONTCHARTRAIN LEVEE DISTRICT LEVEE ALIGNMENTS & STRUCTURES



Map by: Louisiana Office of Coastal Protection & Restoration

Date: April 28, 2009

Imagery: 2000 SPOT

Data Sources:
USACE
LA OCPR

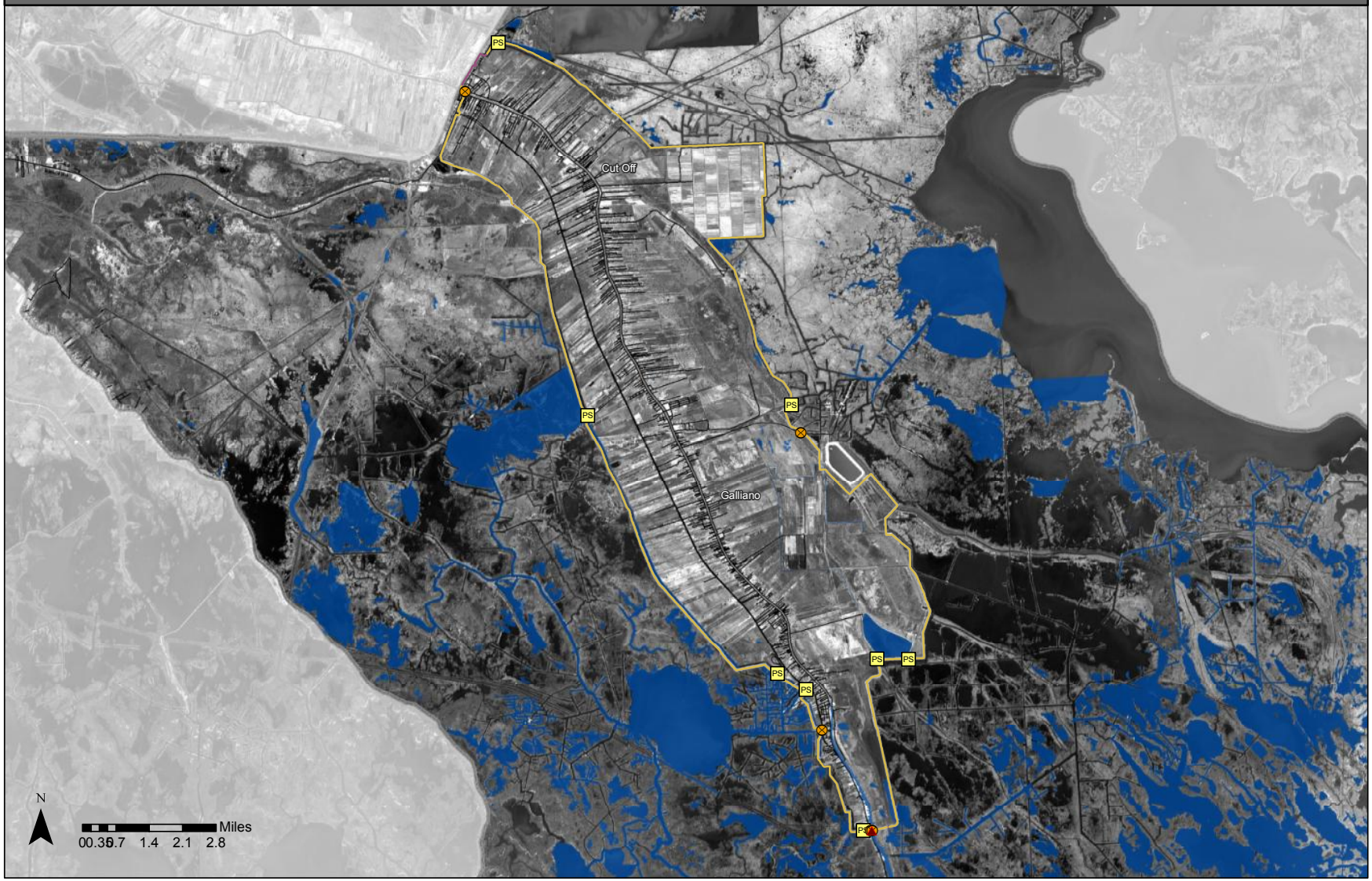
Legend

Levee Construction Type

- I-Wall
- Earthen Levee
- Control Structure

- Flood Gate
- Pump Station
- Water Bodies

SOUTH LAFOURCHE LEVEE DISTRICT LEVEE ALIGNMENTS & STRUCTURES



Legend

Levee construction types

- Earthen Levee
- I-Wall
- Sheet Pile
- Control Structure
- Flood Gate
- Pump Station
- Water Bodies

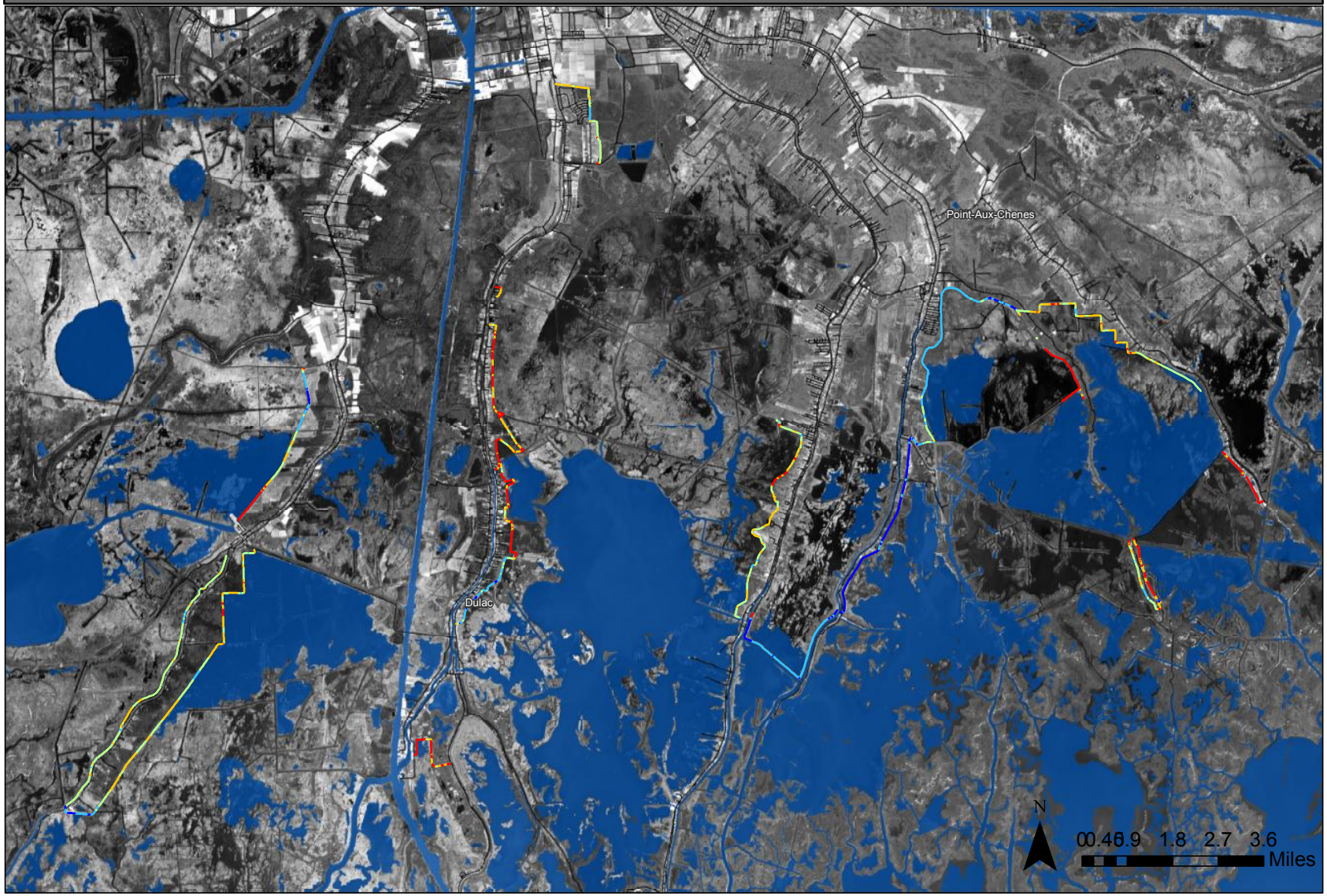
Map by: Louisiana Office of Coastal Protection & Restoration

Date: April 28, 2009

Imagery: 2000 SPOT

Data Sources:
USACE
LA OCPR

TERREBONNE LEVEE & CONSERVATION DISTRICT LEVEE ELEVATIONS



Legend

Levee Elevation (Ft)

- 2.4 - 5.5
- 5.6 - 6.8
- 6.9 - 8.2
- 8.3 - 10.0
- 10.1 - 12.7
- Water Bodies

Map by: Louisiana Office of Coastal Protection & Restoration

Date: April 28, 2009

Imagery: 2000 SPOT

Data Sources:
USACE
LA OCPR

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ATTACHMENT C

Projects and Project Concepts In Coastal Parish Master Plans

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PROJECT CONCEPTS FROM COASTAL PARISH MASTER PLANS

Program	Local Project Number	Project Name	Project Type	Senate District	House District	Parish	Project Costs	Project Summary	Planning Unit
State and Local	JE-1	LaBranche Wetlands Drainage Diversion	FD	8	105	Jef.	$855,000	Storm water drainage from the northwest corner of Jefferson Parish (Kenner, LA area) now enters the Parish Line Canal and flows north, directly into Lake Pontchartrain. The proposed project would include the construction of a water control structure to divert storm water drainage into the LaBranche Wetlands for hydrologic restoration. The storm water would be diverted at the northernmost feasible location to maximize the wetland area benefitted and the level of water quality enhancement.	1
N/A	N/A	Breton Sound	MC	1	105	Plaq.	Not provided	Breton Sound Fringe Marsh Barriers.	1
N/A	N/A	Baptiste Collete	MC	1	105	Plaq.	Not provided	Baptiste Collette and Surrounding Marshes.	1
N/A	N/A	American/California bay	FD	1	105	Plaq.	Not provided	American/California bay/Bohemia Diversion.	1
N/A	N/A	Bayou Lamoque	FD	1	105	Plaq.	Not provided	Bayou Lamoque Diversion.	1
N/A	N/A	Caernarvon	FD	1	105	Plaq.	Not provided	Caernarvon Diversion.	1
N/A	N/A	Fort St. Phillip	FD	1	105	Plaq.	Not provided	Fort St. Phillip Diversion.	1
N/A	N/A	Grand Bay	FD	1	105	Plaq.	Not provided	Grand Bay Diversion.	1
N/A	N/A	White Ditch	FD	1	105	Plaq.	Not provided	White's Ditch Diversion.	1
N/A	N/A	Breton Land bridge	MC	1	105	Plaq.	Not provided	Breton Sound Land Bridge.	1
N/A	N/A	Baptiste Collete-Fort St. Phillip	RR	1	105	Plaq.	Not provided	Baptiste Collette to Fort St. Phillip Ridge Reforestation.	1
N/A	N/A	Bohemia-White's Ditch	RR	1	105	Plaq.	Not provided	Back Levee Canal-Bohemia to White's Ditch Ridge Reforestation.	1
N/A	N/A	Caernarvon	RR	1	105	Plaq.	Not provided	Unnamed Ridges South of Caernarvon Ridge Reforestation.	1
N/A	N/A	Caernarvon	RR	1	105	Plaq.	Not provided	Unnamed Ridges South of Caernarvon Ridge Reforestation.	1
N/A	N/A	Fort St. Phillip-Ostrica	RR	1	105	Plaq.	Not provided	Fort St. Phillip to Ostrica Lock Ridge Reforestation.	1
N/A	N/A	Ostrica-Bayou Lamoque	RR	1	105	Plaq.	Not provided	Ostrica Lock to Bayou Lamoque Ridge Reforestation.	1
N/A	N/A	River aux Chenes	RR	1	105	Plaq.	Not provided	River Aux Chenes Ridge Reforestation.	1
N/A	N/A	Breton Sound	SP	1	105	Plaq.	Not provided	Breton Sound Fringe Marsh.	1
N/A	N/A	Violet	FD	1	103	StB.	Not provided	Violet Diversion.	1
N/A	N/A	Lake Borgne	SP, OR	1	103	StB.	Not provided	Lake Borgne surge breaker/reef.	1
N/A	N/A	Bayou Terre aux Boeufs/ La Loutre	MC	1	103	StB.	Not provided	Marsh Creation-Bayou Terre aux Boeufs to Bayou la Loutre Land Bridge.	1
N/A	N/A	Biloxi Marsh	MC	1	103	StB.	Not provided	Biloxi Marsh Creation.	1
N/A	N/A	Central Wetlands	MC	1	103	StB.	Not provided	Central Wetlands Marsh Creation.	1
N/A	N/A	Lake Borgne/MRGO	MC	1	103	StB.	Not provided	MRGO/Lake Borgne Landbridge Marsh Creation.	1
N/A	N/A	Orleans Landbridge	MC	1	103	StB.	Not provided	Orleans Landbridge Marsh Creation.	1
N/A	N/A	Biloxi Marsh	SP, OR	1	103	StB.	Not provided	Biloxi Marsh Oyster Reefs/Shoreline Protection.	1
N/A	N/A	Lake Borgne	SP	1	103	StB.	Not provided	Lake Borgne Shoreline Protection-MRGO Land Bridge.	1
N/A	N/A	Orleans Landbridge	SP	1	103	StB.	Not provided	Orleans Landbridge shoreline protection.	1
N/A	N/A	St. Bernard Parish	OR	1	103	StB.	Not provided	Develop Oyster reefs as shoreline barrier-Biloxi Marsh.	1
CWPPRA	NA-9	Bayou Dupont Sediment Delivery Expansion	MC	8	105	Jef.	$25,000,000	This project would supplement a sediment delivery project now being developed by extending the sediment deposition areas to the north (Phase I) and south (Phase II) to restore these wetlands and enhance Land Bridge integrity. Phase I would restore the bounding shorelines and restore approximately 1,800 acres of wetlands. Phase II would restore approximately 2,000 acres of wetlands.	2
CWPPRA	PR-1	Bayou Rigolettes, Bayou Perot, and Harvey Cut Channel Management	HR	8	105	Jef.	$2,770,000	This project would restore hydrologic conditions at the critical Land Bridge area by plugging several oil and gas canals, restricting channel dimensions at Harvey Cut, and restricting channel dimensions at the Bayou Perot/ Little Lake intersection.	2
CWPPRA	MG-3	Dupre Cut Project (BA-26) Wetland Restoration	MC	8	105	Jef.	$45,880,000	The project includes the development of an area-wide sediment delivery system. This system would utilize sediments that are hydraulically-dredged from the Mississippi River, and transported via slurry pipelines to the targeted marsh sites. The existing rock dikes at Dupre Cut will act as a retention feature to ensure that the sediments are successfully distributed into the target areas.	2

PROJECT CONCEPTS FROM COASTAL PARISH MASTER PLANS

Program	Local Project Number	Project Name	Project Type	Senate District	House District	Parish	Project Costs	Project Summary	Planning Unit
CWPPRA	MG-5	South Shore of The Pen Shoreline Protection/ Stabilization	MC, SP	8	105	Jef.	$34,800,000	The project would be conducted in three phases. Phase I would involve placing a dedicated dredge in the Barataria Bay Waterway that would retrieve sediments from the bottom of the waterway and place them behind the existing rock armor along the eastern shore. Phase II would include constructing a rock dike along the southeastern shoreline of The Pen and using a dedicated dredge to place materials behind it. Phase III would consist of reinforcing the existing protection along the southwestern shore of The Pen and filling the area behind the protection with dredged material.	2
CWPPRA	PR-2	Dupre Cut/ Barataria Bay Waterway Channel Management	HR	8	105	Jef.	$7,600,000	This project proposes to strategically place four sheetpile barriers in the Barataria Bay Waterway as a means of reestablishing historic levels of hydrologic exchange within the area. This project would help protect the integrity of the shorelines of the Dupre Cut portion of the Barataria Bay Waterway. The project would also restrict channel dimensions to limit saltwater intrusion, tidal prism, and enhance freshwater retention.	2
CWPPRA	BS-1	PPL 3 (XBA-1c) Grand Pierre Island Restoration	SP	8	105	Jef.	N/A	The project would reconstruct breached shorelines, then restore interior marsh elevations and sand dune features.	2
CWPPRA	PR-7	Land Bridge Shoreline Protection Extension and Wetland Restoration	MC, SP	8	105	Jef.	$39,000,000	This project is designed to fortify the region on the southern side of a portion of the Land Bridge Project - Phase 3. The wetland area is being hydrologically degraded by interior exposure from the oilfield canal breaches and shoreline erosion along surrounding water bodies. The project would construct approximately 28,000 feet of shoreline protection interspersed with viable oilfield canal closures, followed by the placement of dedicated dredge material to restore elevations of degraded wetland areas. The final identification of viable canal closure and wetland fill targets would be established during project design to maximize project effectiveness and minimize oil and gas impacts.	2
CWPPRA	NA-3	Goose Bayou to Cypress Bayou Shoreline Protection	SP	8	105	Jef.	$5,000,000 - $25,000,000	Approximately 8,000 linear feet of additional shoreline protection would be added along the west side of Goose Bayou to its intersection with Cypress Bayou. A dedicated dredge would the move sediment from the bottom of The Pen to the area behind the shoreline protection. The deposited material would be built into a topographic ridge to restore the historic function of ridges in the project area. The artificial ridge would be planted with woody vegetation.	2
CWPPRA	BI-4	Elmer's Island and West Grand Terre Oak Ridge Restoration	BI	8	105	Jef.	$3,000,000	This project will restore the natural ridges that historically sustained the growth of Oak Trees. The restored ridges would then be vegetated.	2
CWPPRA	FN-1	Caminada Chenier Restoration	BI	8	105	Jef.	$19,000,000	This project will restore the areas natural chenier plain morphology by restoring the elevation and integrity of approximately seven deteriorated ridges. Existing ridges would be followed and breaches would be plugged to interconnect remaining ridge features. The project would also provide for the restoration of former borrow pits along LA Highway 1. Restoration of the former borrow pits would include the degradation of pit levees, followed by the placement of fill. Future dedicated dredging projects could be initiated for the purpose of restoring basin areas between the restored ridges to restore natural elevation and hydrologic gradients.	2
CWPPRA	MG-1	Myrtle Grove Natural Ridge Restoration	RR	8	105	Jef.	$6,230,000	This project will restore the natural ridges that historically sustained the area's complex hydrology. Existing banklines will be followed and breaches will be plugged to interconnect existing land masses, and would thus create a series of ridges. The northern ridge would be constructed along a portion of the north bank of Bayou Dupont that lies between its intersection with oil and gas canals in the Sea Deuce area, westward from the intersection with the southeast bank of Chenier Traverse Bayou. The southern ridge would be constructed from the intersection of the Barataria Bay Waterway with the historical Bayou Barataria ridge, north of Dupre Cut, and would then veer southeastward, along the north bank of the historical ridge, crossing the Texaco Canals, and then intersecting with the north bank of Bayou Maurice, to terminate at the west bank of the Barataria Bay Waterway, south of Dupre Cut.	2
CIAP	MG-2	Lafitte Oil and Gas Field (East) Restoration	HR	8	105	Jef.	$2,230,000	This project is to restore natural hydrology by eliminating avenues for saltwater intrusion and sediment loss. The Texaco Canals are a maze of existing oil and gas canals which now breach the natural ridges. After an evaluation of production activities within the field, several canals will be eliminated and plugged off to re-connect existing land masses. Future dedicated dredging can be utilized to fill the abandoned canals to reduce saltwater intrusion and enhance freshwater and sediment retention.	2
CIAP	PR-5	Shoreline Stabilization at North Bank of Bayou Rigolettes near Bayou Barataria	SP	8	105	Jef.	$1,040,000	This project would protect the integrity of the north shoreline of Bayou Rigulettes at its intersection with Bayou Barataria near Lafitte, and would provide protection for the foundation and site of an existing water tank facility that provides potable drinking water to the coastal community of Grand Isle. The project would also eliminate further erosion of the north bank of Bayou Rigolettes directly at its intersection with Bayou Barataria, and by restricting any further widening of the channel, would help to limit unrestricted tidal prism exchange and saltwater intrusion.	2
CIAP	PR-6	Delta Farms Oil and Gas Field Restoration	SP	8	105	Jef.	$1,300,000	This project would plug redundant oilfield access canals to enhance freshwater retention, improve hydrology, and to reduce pathways for saltwater intrusion and extreme tidal exchange.	2

PROJECT CONCEPTS FROM COASTAL PARISH MASTER PLANS

Program	Local Project Number	Project Name	Project Type	Senate District	House District	Parish	Project Costs	Project Summary	Planning Unit
CIAP	BI-5	Grand Isle Oil and Gas Pipeline Corridor Shoreline Protection - Alternative 1	SP	8	105	Jef.	$2,400,000	The project is designed to protect Grand Isle's southern shoreline from erosion which may eventually affect the integrity of an offshore pipeline corridor. This alternative would construct a rock dike along an approximately 2-mile section of Grand Isle shoreline to directly protect the beach by armament.	2
CIAP	BI-5	Grand Isle Oil and Gas Pipeline Corridor Shoreline Protection - Alternative 2	SP	8	105	Jef.	$1,600,000	The project is designed to protect Grand Isle's southern shoreline from erosion which may eventually affect the integrity of an offshore pipeline corridor. This alternative would construct approximately 1.25 miles of rip-rap breakwater segments to extend an existing breakwater alignment eastward. This would indirectly protect the beach by reducing wave energy.	2
CIAP	LAF-3	Leeville Bridge Preliminary Design	INF	8	105	Jef.	$1,750,000	This project would complete the preliminary design for the construction of a replacement for the Leeville Bridge. The preliminary design phase would include survey, geotechnical testing, mitigation, permits, and the preparation of a preliminary design.	2
CARA	PR-11	Bayou Perot/ Rigolettes Peninsula Restoration	MC, SP	8	105	Jef.	$125,000,000	The project would construct approximately 22,000 feet of restored shoreline to reconnect remaining landmasses of the peninsula. Dedicated dredge material would then be placed to fill open water areas, then to restore overall wetland elevations. The sequencing and limits for the filling of target areas would be established during project design to maximize effectiveness.	2
CARA	NA-8	Goose Bayou to Lafitte Levee	HP	8	105	Jef.	N/A	This project would construct flood protection from the Town of Jean Lafitte southward to Goose Bayou. The flood protection system would be constructed east of LA Highway 45 at the wetland/non-wetland interface.	2
CARA	BI-3	Elmer's Island Acquisition and Preservation	LA	8	105	Jef.	$6,000,000	This project recommends the public purchase and preservation of 1,700 acres of Elmer's Island as a publicly accessible primitive area.	2
CARA	CS-4	Wetland Harbor Activities Recreational Facility (WHARF)	LA	8	105	Jef.	$28,000,000	The project involves the development of multi-use facilities to provide individuals of all physical capabilities with onsite recreational opportunities. The development will also afford them access to the adjacent wetlands, nearby State and Federal parks, and the abundant natural and cultural experiences offered by Louisiana's wetlands.	2
CARA	BB-1	North Barataria Bay Shoreline Wave Breaks	SP	8	105	Jef.	$42,600,000	This project would provide basin-wide protection to insure the integrity of the affected wetland shorelines south of Bay Jimmy and Wilkerson Bayou in the eastern portion of the project, north of Barataria Bay in the middle portion of the project, and adjacent to Bayou Cholas, Bayou Defond, and Creole Bay in the western portion of the project. The project would restrict channel dimensions at various locations in order to limit saltwater intrusion, tidal prism, and enhance freshwater retention.	2
State and Local	NA-1	Naomi Siphon Sediment Enrichment	FD	8	105	Jef.	$330,000	This project involves using a dedicated dredge, during high water levels in the river, to pump river-bottom sediment into the discharge stream of the siphon. The enriched effluent would continue its course over land, depositing the sediments along its route.	2
State and Local	NA-6	Rosethorne Wetlands Sewage Effluent Diversion	WA	8	105	Jef.	$90,000	The proposed project envisions re-routing the Rosethorne wastewater treatment plant effluent from the Intracoastal Canal to an area of adjacent wetlands. The project would consist of upgrading the capacity of the existing sewerage effluent pumping station and installing approximately 1,300 feet of force main. Water control structures and a flow distribution system would also be constructed to channel the flow through the wetlands. The outlet of the discharge line would be placed at the most hydrologically upstream point of the target wetland feasible to ensure that the maximum area of wetlands is benefited and the highest contaminant removal possible is achieved.	2
State and Local	CS-3	Bayou Segnette Wetlands Sewage Effluent Diversion	WA	8	105	Jef.	$350,000	The proposed project envisions re-routing the Westwego wastewater treatment plant effluent from the local drainage canal network to an area of adjacent wetlands. The project would consist of constructing an effluent pumping station and installing approximately 4200 feet of force main. Water control structures and a flow distribution system would also be constructed to channel the flow through the wetlands. The outlet of the discharge line would be placed at the most hydrological upstream point of the target wetland feasible to ensure that the maximum area of wetlands is benefited and the highest contaminant removal possible is achieved.	2
State and Local	BI-6	Grand Isle Plan, Part I - NW Grand Isle Breakwater Enhancement	SP	8	105	Jef.	$650,000	This project will modify existing ineffective breakwater segments on the northwest side of Grand Isle to close gaps which prevent sediment accretion.	2
N/A	N/A	Bay Coquette Barrier Island	BI	1	105	Plaq.	Not provided	Barrier island fronting Bay Coquette east of Scofield Island.	2
N/A	N/A	Chaland Headland	BI	1	105	Plaq.	Not provided	Chaland Headland.	2
N/A	N/A	Chenier Ronquille	BI	1	105	Plaq.	Not provided	Cheniere Ronquille.	2
N/A	N/A	E. Grand Terre	BI	1	105	Plaq.	Not provided	East Grande Terre.	2
N/A	N/A	Pass Chaland to Grand Bayou	BI	1	105	Plaq.	Not provided	Pass Chaland to Grande Bayou Pass.	2
N/A	N/A	Pelican Island	BI	1	105	Plaq.	Not provided	Restoration enhancement including elevating dunes and widening islands and planting a mangrove fringe on the backside of the islands across 2.4 miles, approximately 10 feet high and 2000 feet wide.	2
N/A	N/A	Sandy Point Barrier Island	BI	1	105	Plaq.	Not provided	Barrier Island E of Bay Coquette to Sandy Point.	2

PROJECT CONCEPTS FROM COASTAL PARISH MASTER PLANS

Program	Local Project Number	Project Name	Project Type	Senate District	House District	Parish	Project Costs	Project Summary	Planning Unit
N/A	N/A	Sandy Point	BI	1	105	Plaq.	Not provided	Sandy Point/Bay Coquette.	2
N/A	N/A	Scofield Island	BI	1	105	Plaq.	Not provided	Restoration enhancement including elevating dunes and widening islands and planting a mangrove fringe on the backside of the islands approximately 10 feet high and 2000 feet wide.	2
N/A	N/A	Shell/Lanaux Island	BI	1	105	Plaq.	Not provided	Shell/Lanaux Island.	2
N/A	N/A	Baptiste Collete	DE	1	105	Plaq.	Not provided	Baptiste Collete sub-delta.	2
N/A	N/A	Venice	FD	1	105	Plaq.	Not provided	Venice: Tiger Pass to West Bay.	2
N/A	N/A	Bastian Bay/Buras	FD	1	105	Plaq.	Not provided	Buras/Bastian Bay Diversion.	2
N/A	N/A	Myrtle Grove	FD	1	105	Plaq.	Not provided	Myrtle Grove Diversion.	2
N/A	N/A	Naomi	FD	1	105	Plaq.	Not provided	Naomi Siphon.	2
N/A	N/A	Spanish Pass/Venice Diversion	FD	1	105	Plaq.	Not provided	Spanish Pass Freshwater Diversion.	2
N/A	N/A	West Point a la Hache	FD	1	105	Plaq.	Not provided	West Pointe a la Hache Siphon.	2
N/A	N/A	Empire-Triumph Fringe Marsh	MC	1	105	Plaq.	Not provided	Fringe Marsh Construction.	2
N/A	N/A	Myrtle Grove-Naomi	MC	1	105	Plaq.	Not provided	Myrtle Grove to Naomi Fringe Marsh.	2
N/A	N/A	Port Sulphur-West Pointe a la Hache	MC	1	105	Plaq.	Not provided	Port Sulphur to West Pointe a la Hache Fringe Marsh.	2
N/A	N/A	Venice-Triumph Fringe Marsh	MC	1	105	Plaq.	Not provided	Fringe Marsh Construction.	2
N/A	N/A	West Point a la Hache-Myrtle Grove	MC	1	105	Plaq.	Not provided	West Pointe a la Hache to Myrtle Grove Fringe Marsh.	2
N/A	N/A	Bayou Long/ Bayou Fontanelle	RR	1	105	Plaq.	Not provided	Empire Channel Islands, Bayou Long/Bayou Fontanelle.	2
N/A	N/A	Lake Hermitage	RR	1	105	Plaq.	Not provided	Bayou Grand Cheniere/Lake Hermitage.	2
N/A	N/A	Nairn	RR	1	105	Plaq.	Not provided	Ridge North of Bay de la Cheniere (West of Nairn).	2
N/A	N/A	Bastian Bay	SP	1	105	Plaq.	Not provided	Bastian Bay.	2
N/A	N/A	Bay Coquette	SP	1	105	Plaq.	Not provided	Bay Coquette.	2
N/A	N/A	Bay Joe Wise	SP	1	105	Plaq.	Not provided	Bay Joe Wise.	2
N/A	N/A	Bay Long	SP	1	105	Plaq.	Not provided	Bay Long.	2
N/A	N/A	Bayou Grand Liard/Buras	SP	1	105	Plaq.	Not provided	Bayou Grande Liard/Buras Fringe Marsh.	2
N/A	N/A	Bayou Long	SP	1	105	Plaq.	Not provided	Empire Waterway/ Bayou Long.	2
N/A	N/A	Grand Terre (West)	SP	1	105	Plaq.	Not provided	North of West Grande Terre Island.	2
N/A	N/A	Venice	RR	1	105	Plaq.	Not provided	Ridge West of Venice along banks of Spanish Pass.	2
N/A	N/A	Highway 82/ Schooner Bayou Control Structure	SP	26	47	Ver.	Not provided	Install a barrier along the south bank of Schooner Bayou from LA Hwy 82 to the Schooner Bayou structure. These measures would halt saltwater intrusion into the basin, preserving the integrity of the Mermentau Basin and create surge protection for the communities, agricultural economy and act as another line of defense against storm surges caused by tropical storms and hurricanes.	4
N/A	FD 8	South-West Shore Lake Decade	MC	20	51	Ter.	Not provided	Description not provided.	3a
N/A	FD 42	East Island Dune and Marsh Restoration	BI	20	53	Ter.	Not provided	Description not provided.	3a
N/A	FD 6	Marsh Creation to the North of Lost Lake	MC	20	51	Ter.	Not provided	Description not provided.	3a
N/A	FD 7	West Shore Lake Decade	MC	20	51	Ter.	Not provided	Description not provided.	3a
N/A	FD 9	Lake Decade Marsh Creation and Nourishment	MC	20	51	Ter.	$21,000,000	Sediment would be dredged from Lake Decade and placed in a semi-confined manner in strategic locations along the lake shoreline to create and nourish intertidal intermediate and fresh marsh. Approximately half of the created marsh would be planted with appropriate wetland vegetation. The borrow area in Lake Decade would be located and designed in a manner to avoid and minimize potential environmental impacts to the maximum extent practicable.	3a
N/A	FD 10	North Shore Lake Mechant	MC	20	51	Ter.	Not provided	Description not provided.	3a
N/A	FD 28	Marsh Creation East of Lake Boudreaux	MC	20	53	Ter.	Not provided	Description not provided.	3a

PROJECT CONCEPTS FROM COASTAL PARISH MASTER PLANS

Program	Local Project Number	Project Name	Project Type	Senate District	House District	Parish	Project Costs	Project Summary	Planning Unit
N/A	FD 11	Marsh Creation North Raccourci Bay	MC	20	51	Ter.	Not provided	Description not provided.	3a
N/A	FD 35	Bayou Dularge to Grand Pass Ridge Restoration	RR	20	51	Ter.	Not provided	Description not provided.	3a
N/A	FD 36	Bayou Decade Ridge Restoration from Lake Decade to Raccourci Bay	RR	20	51	Ter.	Not provided	Description not provided.	3a
N/A	FD 12	Marsh Creation Bush Canal	MC	20	53	Ter.	Not provided	Description not provided.	3a
N/A	FD 13	Lake Boudreaux-Lake Quitman Shoreline Protection and Marsh Creation	MC, SP	20	53	Ter.	Not provided	Description not provided.	3a
N/A	FD 15	Marsh Creation North Shore Lake Tambour	MC	20	53	Ter.	Not provided	Description not provided.	3a
N/A	FD 16	Terrebonne Bay Shoreline Protection/Marsh Creation Comprehensive Plan Project	MC, SP	20	51/53	Ter.	Not provided	Description not provided.	3a
N/A	FD 27	Marsh Creation East of Felix Lake	MC	20	53	Ter.	Not provided	Description not provided.	3a
N/A	FD 34	Bayou Terrebonne Ridge Restoration - Below Bush Canal	RR	20	53	Ter.	Not provided	Description not provided.	3a
N/A	FD 87	Lake Mechant South-West Shoreline Protection and Bayou Dularge Ridge Protection	SP, RR	20	51	Ter.	Not provided	Description not provided.	3a
N/A	FD 88	HNC Beneficial Use of Dredge Material (Bay Tambour and Terrebonne Bay)	MC	20	51/53	Ter.	Not provided	Description not provided.	3a
N/A	FD 89	Madison/Terrebonne Bays Marsh Creation	MC	20	53	Ter.	Not provided	Description not provided.	3a
N/A	FD 14	Marsh Creation North Shore Lake Chien	MC	20	53	Ter.	Not provided	Description not provided.	3a
N/A	FD 19	Bay Raccourci Marsh Creation and Terracing Project	MC, SNT	20	51	Ter.	Not provided	Description not provided.	3a
N/A	FD 20	Rebuild the East Bank of the Bayou Terrebonne - Integrity for Freshwater Conveyance	MC	20	53	Ter.	$5,000,000 - $20,000,000	Marsh creation on the east bank of Bayou Terrebonne from Madison Canal to Grand Bayou to improve the integrity of the channel to convey freshwater.	3a
N/A	FD 25	Marsh Creation North Deep Saline	MC	20	53	Ter.	Not provided	Description not provided.	3a
N/A	FD 26	Marsh Creation West of Four Point Bayou	MC	20	51	Ter.	Not provided	Description not provided.	3a
N/A	FD 31	Lost Lake Shoreline Protection and Hydrologic Restoration	SP, HR	20	51	Ter.	$26,000,000	The proposed project consists of several features to protect the marsh, create marsh and extend the land bridge function of the North Lost Lake Mechant Landbridge Project to the west. Marshes north, east, and west of Lost Lake serve an important function as an intermediate zone buffering fresh marshes to the north from higher salinities to the south. Features include 160 acres marsh nourishment along the northern and western shoreline of Lost Lake, 30 acres terracing to reduce fetch in the northeast of Lost Lake, 300 acres of marsh creation between Lake Paige and Bayou Decade, removal of weirs and installation of more open structures to increase the flow of freshwater and sediment delivery.	3a
N/A	FD 63	Marsh Creation South-West of Four League Bay (Phased Implementation)	MC	20	51	Ter.	$5,000,000 - $20,000,000	Use of material dredged from the Atchafalaya River to create marsh of Point Au Fer Island.	3a
N/A	FD 69	North Lake Boudreaux Basin Freshwater Introduction and Hydrologic Management	FI	20	53	Ter.	Not provided	Description not provided.	3a
N/A	FD 84	Bank Stabilization along Bush Canal and Bayou Terrebonne	SP	20	53	Ter.	Not provided	Description not provided.	3a
N/A	FD 17	DULAC Bayou - Marsh Terracing	SNT	20	51/53	Ter.	Not provided	Description not provided.	3a
N/A	FD 18	South Montegut - Marsh Terracing	SNT	20	53	Ter.	Not provided	Description not provided.	3a

PROJECT CONCEPTS FROM COASTAL PARISH MASTER PLANS

Program	Local Project Number	Project Name	Project Type	Senate District	House District	Parish	Project Costs	Project Summary	Planning Unit
N/A	FD 37	Sediment Introductions at South Shore Sister Lake	MC	20	53	Ter.	Not provided	Description not provided.	3a
N/A	FD 21	Marsh Creation North Stump Canal	MC	20	51	Ter.	Not provided	Description not provided.	3a
N/A	FD 22	Marsh Creation School Board Property South of Swing Bayou	MC	20	51	Ter.	Not provided	Description not provided.	3a
N/A	FD 23	Marsh Creation North-East of Toilet Bowl Canal	MC	20	51	Ter.	Not provided	Description not provided.	3a
N/A	FD 24	Marsh Creation North East of Bayou Penchant	MC	20	51	Ter.	Not provided	Description not provided.	3a
N/A	FD 70	Brandy Canal Hydrological Restoration Project	HR	20	51	Ter.	Not provided	Description not provided.	3a
N/A	FD 57	Dredge Bayou Terrebonne from Company Canal to Humble Canal	HR	20	53	Ter.	$5,000,000 - $20,000,000	Dredging Bayou Terrebonne will result in an increase in the amount of freshwater available to eastern Terrebonne Parish marshes.	3a
N/A	FD 58	Dredge Minors Canal (GIWW to Lake Decade)	HR	20	51	Ter.	Not provided	Description not provided.	3a
N/A	FD 62	Dredge Company Canal to Convey Freshwater Flow to Terrebonne Marshes	HR	20	53	Ter.	$5,000,000 - $20,000,000	Dredging Company Canal between the GIWW and Bayou Terrebonne will result in an increase in the amount of freshwater available for eastern Terrebonne Parish marsh sustainability.	3a
N/A	FD 59	Connect St. Louis Canal to Petit Caillou	HR	20	53	Ter.	Not provided	Description not provided.	3a
N/A	FD 65	Large Pump Station at Bayou Terrebonne	HP	20	53	Ter.	$500,000	Storm water drainage will be used to introduce freshwater to an area of marsh west of Bayou Terrebonne currently experiencing saltwater intrusion and a high rate of subsidence.	3a
N/A	FD 66	Pump Station at Bayou Petit Caillou for Freshwater Diversion to Ward 7	HP	20	53	Ter.	Not provided	Description not provided.	3a
N/A	FD 79	Bayou Terrebonne Freshwater Diversion Project	FD	20	53	Ter.	$2,000,000 - $5,000,000	Through the use of an existing drainage ditch, removal of an earthen plug between the Montegut and Point aux Chenes drainage systems, construction of 3 small pump stations, and construction of a screw gate water control device near the removed plug location, increased volumes of freshwater can be made available to the marshes of Montegut and Point aux Chenes within the wildlife Management Areas. Over 9,000 acres of brackish and intermediate marsh will be benefitted.	3a
N/A	FD 68	South Lake Decade Freshwater Enhancement and Shoreline Protection	HR, SP	20	51	Ter.	$5,800,000	Proposed project components include installing three control structures along the rim of the lake and enlarging Lapeyrouse Canal to allow the controlled diversion of the Atchafalaya River water, nutrients, and sediments south into project area marshes. Outfall management structures are planned in the marsh interior to provide better distribution of river water. In addition, approximately 1.6 miles of foreshore rock dyke is planned to protect the critical areas of the south lake shoreline from breaching.	3a
N/A	FD 71	Ashland Freshwater Introduction and Wetland Assimilation Project	WA	20	53	Ter.	$5,000,000	This freshwater introduction project will incorporate wastewater treatment effluent and freshwater from the GIWW by way of St. Louis Canal to Terrebonne Marshes north of Lake Boudreaux. Nutrients added to the system will enhance and promote plant growth and the sediment introduced will promote accretion to an area at risk for further deterioration.	3a
N/A	FD 77	Woodlawn Ranch Road	HR	20	53	Ter.	$500,000	This pump station project is the largest among those considered at 1350 cfs. Utilizing stormwater drainage from the Houma area, freshwater will be introduced to the marshes north of Lake Boudreaux in an area currently impacted by saltwater intrusion and subsidence. This project works in conjunction with Ashland Freshwater Introduction and Wetland Assimilation.	3a
N/A	FD 85	Reconnect Grand Bayou to GIWW	HR	20	53	Ter.	$5,000,000 - $20,000,000	Installation of a water control structure between GIWW and Grand Bayou and dredging of Grand Bayou will be added in order to increase the amount of water available to this region of Terrebonne Parish. Increased sheet flow of freshwater and nutrients will assist in vegetation enhancement and accretion in an area of marsh that is rapidly deteriorating.	3a
N/A	FD 33	Freshwater Introduction via Blue Hammock Bayou	FD	20	51	Ter.	Not provided	Description not provided.	3a
N/A	FD 67	Falgout Canal Freshwater Enhancement (Phase I)	HR	20	51	Ter.	$10,000,000	Saltwater intrusion and hydrologic isolation have led to rapid deterioration of marsh within the marshes located adjacent to Falgout Canal, between Bayou Dularge and the Houma Navigation Canal. This project will allow for re-establishment of Atchafalaya River influence.	3a
N/A	FD 80	Freshwater Diversion using the Bayou Terrebonne Flood Gate	FD	20	53	Ter.	Not provided	Description not provided.	3a
N/A	FD 72	Lower Bayou Dularge Pump Station	HR	20	51	Ter.	$500,000	Pump station D19 will divert approximately 200 cfs of freshwater east of Bayou Dularge into an area of marsh currently experiencing saltwater intrusion and a high rate of subsidence.	3a
N/A	FD 73	Upper Bayou Dularge	HR	20	51	Ter.	$500,000	Pump station D18 will be used to introduce approximately 200 cfs of freshwater to the marshes north of Falgout Canal. Marshes in this area are at risk of further deterioration due to saltwater intrusion.	3a
N/A	FD 74	Mayfield	HR	20	53	Ter.	Not provided	Description not provided.	3a

PROJECT CONCEPTS FROM COASTAL PARISH MASTER PLANS

Program	Local Project Number	Project Name	Project Type	Senate District	House District	Parish	Project Costs	Project Summary	Planning Unit
N/A	FD 75	Lower Grand Caillou	HR	20	53	Ter.	Not provided	Description not provided.	3a
N/A	FD 76	Upper Grand Caillou	HR	20	51	Ter.	Not provided	Description not provided.	3a
N/A	FD 78	Point-Aux-Chene	HR	20	53	Ter.	Not provided	Description not provided.	3a
N/A	FD 60	Remove Constrictions/Dredge GIWW from Bayou Black to Bayou Wallace	HR	20	51	Ter.	Not provided	Description not provided.	3a
N/A	FD 82	Installation of Flap Gated Culverts Under Highway 57 between Dulac and Highway 56	HR	20	53	Ter.	Not provided	Description not provided.	3a
N/A	FD 3	Plugs Leaks in GIWW (Bankline Protection for GIWW)	HR	20	51	Ter.	Not provided	Description not provided.	3a
N/A	FD 61	Break in Avoca Guide Levee, North of Horse Shoe to Convey Freshwater to Terrebonne Marshes	FD	20	53	Ter.	Not provided	Description not provided.	3a
N/A	FD 32	Chacahoula Basin Plan	HR	20	51	Ter.	Not provided	Description not provided.	3a
N/A	FD 64	Carencro Bayou Freshwater Introduction Project	HR	20	51	Ter.	Not provided	Description not provided.	3a
N/A	FD 43	Wine Island	BI	20	53	Ter.	Not provided	Description not provided.	3a
N/A	FD 44	West Timbalier Island	BI	20	53	Ter.	Not provided	Description not provided.	3a
N/A	FD 50	Beach and Back Barrier Marsh Restoration, East and Trinity Islands	BI	20	53	Ter.	Not provided	Description not provided.	3a
N/A	FD 56	Barrier Shoreline Restoration Point Au Fer Island	BI	20	51	Ter.	Not provided	Description not provided.	3a
N/A	FD 46	Wine Island Rookery	BI	20	53	Ter.	Not provided	Description not provided.	3a
N/A	FD 48	West Raccoon Island Shoal Enhancement and Protection	BI	20	53	Ter.	Not provided	Description not provided.	3a
N/A	FD 38	Rock (Breakwaters) for Whiskey Island	BI	20	53	Ter.	Not provided	Description not provided.	3a
N/A	N/A	Franklin Canal Closure and Levee Improvements	HP	21	50	StM.	$5,775,000	Under normal circumstances, the Franklin Canal funnels stormwater from urban areas in and around Franklin to low lying outfall marshes and bays of the Gulf of Mexico along Louisiana's central coast. However, the Franklin Canal also serves as a conduit for reverse flows generated by storm surge from the Gulf. In this capacity, the canal has carried elevated water levels northward resulting in flooding in Franklin and along US Hwy 90 (an evacuation route) during Hurricanes Rita and Ike. A closure and levee improvements are proposed to prevent backflow through the canal during surge events. The proposed project uses a floating barge to close the canal and includes sheet pile, earthwork embankment, and levee improvements.	3b
N/A	N/A	Morgan City Levee Improvements	HP	21	50	StM.	$16,000,000 - $20,000,000	The need for levee improvements in Morgan City was brought to the forefront by FEMA's issuance of new preliminary Digital Flood Insurance Rate Maps (DFIRMs) in 2009, recent levee profile surveys, and a subsequent appeal to FEMA issued by the City of Morgan City. Being proactive in flood protection, the citizens within Consolidated Gravity Drainage District No. 2 (Morgan City and vicinity) passed a bond election in late 2009. Proposed levee and pump station improvements indicate upgrades to existing levees to elevations ranging from 8 feet to 10 feet MSL. The improvements address vulnerability caused by water levels arising from Lake Palourde. The proposed upgrades will provide backwater protection from Atchafalaya riverine events and storm surge from the Gulf as well as from stormwater runoff in the Terrebonne Basin north of the city. Upon completion of this project, backwater protection levees in Morgan City will be suitable for certification by the City and FEMA accreditation.	3b
N/A	N/A	Amelia Flood Protection Improvements - Initial Phase (Partial Miller Plan Alternative 2E)	HP	21	50	StM.	$2,260,350	Amelia flood protection presently consists of a somewhat disparate, non-certifiable levee system which offers minimal backwater protection from Bayou Boeuf and Lake Palourde. Drainage District No. 6 applied for Statewide Flood Control Program funds to increase the height of the levee to a consistent 7 feet MSL. Partial funding was granted. However, this initial phase is but a fraction of the proposed comprehensive levee system needed for the Amelia vicinity as proposed by the drainage district and state and federal authorities.	3b

PROJECT CONCEPTS FROM COASTAL PARISH MASTER PLANS

Program	Local Project Number	Project Name	Project Type	Senate District	House District	Parish	Project Costs	Project Summary	Planning Unit
N/A	N/A	Hanson Canal and Yellow Bayou - Flood Control Structures	HP	21	50	StM.	$6,200,000	Hanson Canal and Yellow Bayou, both similar to the Franklin Canal, were designated to serve as conduits for removal of stormwater following normal rainfall events. However, during hurricanes and related events, both serve as a means for reverse flow generated by storm surge. Hurricanes Rita and Ike are recorded example events. Closures and levee improvements are needed to prevent surge flows from moving inland during surge events.	3b
N/A	N/A	Yokely Levee Improvements	HP	21	50	StM.	$5,000,000	During Hurricane Ike, the Charenton Navigational Canal overflowed its banks and inundated the Yokely drainage area with storm surge. Levee improvements and construction of a berm parallel to Industrial Road and the Charenton Navigational Canal south of US 90 are needed to prevent damages from storm surge inundation.	3b
N/A	N/A	Charenton Canal - Flood Control Structure and Levee Improvements - Alternative 1	HP	21	50	StM.	$114,000,000	This alternative is presented as a flood control structure with embankment improvements along both sides of the Charenton Canal. Embankment improvements are needed to prevent overtopping of the canal along its length near urban areas. These improvements will connect to existing levees that are planned from upgrading and proposed federal and/or State funded levees. The timeframe for the construction of these federal/State levees was indefinite at this writing. Nonetheless, the general consensus at the local, regional, State, and federal levels is that the major new levee improvements are decades away, dependent upon state and federal funding appropriations. The functional success of this alternative is directly dependent upon completion of proposed federal and state alignments west of the Charenton Canal to and beyond the Cypremort Ridge tying in to highlands of the Teche Ridge near the parish line.	3b
N/A	N/A	Charenton Canal - Flood Control Structure and Levee Improvements - Alternative 2	HP	21	50	StM.	$14,000,000	Alternative 2 proposes the construction of a flood control structure in Bayou Teche east of its intersection with Charenton Canal. This alternative is less costly than the previous option as it is not dependent on future new federal or state levee construction west of the Charenton Canal or along or west of the Cypremort Ridge. A short levee extension extending northward from the westernmost end of the Bayou Yokely Levee reach will be required.	3b
N/A	N/A	Berwick Levee Improvements - Reach W-124 South	HP	21	50	StM.	$200,000	Reach W-124 near Turtle's Corner south of the city limits of Berwick has a height deficient section approximately 75 feet wide and 1.5 feet deep. The proposed project, which is a federal responsibility, is to fill and compact the area to ensure levee height and design consistency with the surrounding system.	3B
N/A	N/A	West of Wax Lake Outlet to Charenton Canal - Continued Levee Improvements	HP	21	50	StM.	$117,000,000	Within the area defined by Drainage District No. 1, this project requires the elevation of 43 miles of levee to no less than 18 feet MSL. The current levee heights range from 3.5 feet to 20 feet MSL, and some reaches of the existing levee system have been breached by storm surge.	3b
N/A	N/A	Amelia Area - Continuation of Miller Plan Alternative 2E	HP	21	50	StM.	$50,000,000	Alternative 2E follows the existing levee alignments in the northwestern section of Amelia and then create an internal levee ring to protect most of the residential areas of Amelia. This alternative excludes much of the industrial area along Bayou Boeuf.	3b
N/A	N/A	Berwick Lock Elevation	HP	21	50	StM.	$1,000,000 - $100,000,000	The Berwick Lock is currently below the elevation of the surrounding Atchafalaya River levee and seawall protection system. This situation creates vulnerability for all urban and agriculture land situated between Berwick and Calumet as a direct function of Atchafalaya River flows, both riverine and surge. The USACE is aware of the lock elevation deficiency and has the responsibility to elevate the height as needed.	3b
N/A	N/A	WHLO East, Wax Lake East, and W-124 Levee Reach Improvements	HP	21	50	StM.	$22,000,000	The reaches currently protect the municipalities of Berwick and Patterson and the community of Bayou Vista from storm surge. Currently, the levee reaches range from 9-19 feet MSL. The proposed project would elevate the levees to a consistent 18 feet MSL.	3b
N/A	N/A	SMLD Backwater Plan Reconnaissance and Feasibility Analysis	HP	21	50	StM.	$100,000	Reconnaissance Study and possible feasibility analysis	3b
N/A	N/A	Amelia Area - Miller Plan Alternative 3E	HP	21	50	StM.	$171,650,000	This alternative is presented in the Miller Plan, begins in Assumption Parish on the east side of Bayou Boeuf near its intersection with Lake Palourde, continues southward east and inclusive of existing urban areas, crosses the Intracoastal Waterway with a control structure, continues westward in St. Mary Parish south of the Intracoastal Waterway along the higher ground of Avoca Island in a generally northwest direction, and ties into the Avoca Levee near the Bayou Boeuf Locks south of Morgan City.	3b
N/A	N/A	Amelia Area - Louisiana State Master Plan Alignment 1E	HP	21	50	StM.	$400,000,000	The Louisiana State Master Plan Alignment begins east of St. Mary Parish coming westward from Terrebonne Parish to the east bank of Bayou Boeuf, crosses Bayou Boeuf south of the railroad track via a control structure, follows Bayou Boeuf on the Amelia side southward then turns northwest along the bank, proposes a lock in Bayou Boeuf connection to Avoca Island levee near the Bayou Boeuf Locks at Morgan City.	3b
N/A	N/A	Amelia Area - SMLD Backwater Prevention Plan 4E	HP	21	50	StM.		An additional alternative was presented during the planning process (4E) involving the construction of a backwater protection flood control structure in Bayou Chene south of the GIWW with associated new levee alignments. This alternative is in the conceptual stage of planning and requires additional analysis, comparison, and contrast to the other eastern St. Mary and regional backwater protection alternatives. Once reasonable feasibility is established, a detailed evaluation of this alternative may be warranted as a suitable alternative in the state master plan. An initial investigation generally following the guidelines of a USACE reconnaissance study would be in order in an effort to determine the basic feasibility of the alternative. A more detailed feasibility will follow should the project prove feasible with benefits and cost comparable to Alternatives 1E and 3E.	3b

PROJECT CONCEPTS FROM COASTAL PARISH MASTER PLANS

Program	Local Project Number	Project Name	Project Type	Senate District	House District	Parish	Project Costs	Project Summary	Planning Unit
N/A	N/A	Bayou Choupique - Levee Improvements and Flood Control Structure	HP	21	50	StM.	$40,000,000	Bayou Choupique functions as a conduit for storm surge much like the canals noted previously. A flood control structure and associated levee improvements are proposed to ensure adequate flood protection for the west end of the parish.	3b
N/A	N/A	Bayou Sale - Levee Improvements	HP	21	50	StM.	$32,700,000	The levees along Bayou Sale are proposed for elevation to 18 feet MSL to ensure adequate storm surge protection. Gordy and Ellerslie reaches are included.	3b
N/A	N/A	West of Chareton Drainage Canal - Levee Construction - Miller Plan (SMLD Alternative 2W)	HP	21	50	StM.	$66,250,000	This Miller Plan alternative proposes a levee alignment west of the Charenton Canal that generally follows the 5 foot contour extending westward to the Ivanhoe Canal, turns southward along the east side of the Cypremort Ridge, crosses Bayou Cypremort with a minor control structure, then generally follows the 5 foot contour along the west side of the ridge to appropriate connecting elevations of the Teche Ridge.	3b
N/A	N/A	West of Chareton Drainage Canal - Levee Construction - Louisiana State Master Plan (SMLD Alternative 1W)	HP	21	50	StM.	$35,000,000	The Louisiana State Master Plan proposes a levee alignment which generally follows the alignment of the Miller Plan's western levee routing, but instead of turning south at the Cypremort Ridge, it continues westward crossing the ridge and extends to and beyond the parish line into Iberia Parish.	3b
N/A	N/A	Scott Canal - Flood Control Structure	HP	21	50	StM.	$500,000	Scott Canal acts as a conduit for storm surge much link the Franklin Canal. A flood control structure is proposed to ensure adequate flood protection for the west end of the parish.	3b
N/A	N/A	Kelley Canal - Flood Control Structure	HP	21	50	StM.	$500,000	Kelley Canal acts as a conduit for storm surge similar to others noted. A flood control structure is proposed to ensure adequate flood protection for the west end of the parish.	3b
N/A	N/A	Vacherie Canal - Flood Control Structure	HP	21	50	StM.	$500,000	The Vacherie Canal acts as a conduit for storm surge similar to others noted. A flood control structure is proposed to ensure adequate flood protection for the west end of the parish.	3b
N/A	N/A	Bayou Tirge Watershed/Flood Protection	HP	26	49	Ver.	Not provided	Provide protection to the watershed from storm events by construction of a levee system and water control structures that would link to similar measures in Iberia Parish.	3b
N/A	N/A	Flood Control Structure at Boston Canal	HP	26	50	Ver.	Not provided	Construct a flood control structure at the intersection of Boston Canal and the GIWW that could be closed in the event of a hurricane or tropical storm that would aid in stemming the rise of flood waters.	3b
N/A	N/A	Four Mile Canal Structure	HP	26	47	Ver.	Not provided	A reduction in the cross-sectional area of the channel by installing a structure at the terminal end which could be closed during storm events. An opening in the structure would allow the passage of marine vessels and barges. This would be in conjunction with other measures proposed for the GIWW whereby spoil elevation and armoring along the south side of the GIWW is proposed.	3b
N/A	N/A	Hebert Canal Watershed/Storm Protection	HP	26	47	Ver.	$3,000,000	Install control structure on the Hebert Canal at the marsh/upland interface and raise the level of existing protection levees that will afford increased protection to communities from saltwater intrusion damage and flooding from storm surges. A previous plan created by the USDA NRCS has been completed and has engineering and design data.	3b
N/A	N/A	Protection Levee on the Marsh/Upland Interface	HP	26	47/50	Ver.	Not provided	By raising the height of an existing system of agricultural levees, an additional line of defense from tidal surges could be recognized. These existing levees would serve as a sound base for increasing the elevation.	3b
N/A	N/A	LA Hwy. 330 Hurricane Protection	HP	26	50	Ver.	Not provided	Armor the south side of the east/west side of LA 330.	3b
N/A	N/A	Flood Control Structure at Oaks Canal	HP	26	50	Ver.	Not provided	Construct a flood control structure at the intersection of Oaks Canal and the GIWW that could be closed in the even of a hurricane or tropical storm that would aid in stemming the rise of flood waters and protect surrounding wetlands.	3b
N/A	N/A	Freshwater Bayou Bank Stabilization	SP	26	47	Ver.	Not provided	Provide protection to the eastern spoil banks along Freshwater Bayou by repairing existing breaches and subsequently armoring the existing spoil bank. This would create a sound boundary which would protect surrounding fragile wetlands and also provide protection from storm surges during a tropical storm or hurricane. Measures also would be undertaken to reduce the cross-sectional area of the intersection where Bayou Chene intersects Vermilion Bay.	3b/4
N/A	N/A	Utilization of Existing Oil Field Canals	HP	26	47/50	Ver.	Not provided	Using existing oilfield canal spoil banks, raise existing elevation so that it would serve as a buffer that would intercept and minimize storm surge impacts and help reduce the amount of water borne floatsam and debris.	3b/4

Project Type: BI=Barrier Island; DM=Beneficial Use of Dredged Material; FD=Freshwater Diversion; HP=Hurricane Protection; HR=Hydrologic Restoration; INF=Infrastructure; LA=Land Acquisition; MC=Marsh Creation; MM=Marsh Management; OM=Outfall Management; PA=Public Access; PL=Planning; RR=Ridge Restoration; SD=Sediment Diversion; SNT=Sediment and Nutrient Trapping; SP=Shoreline Protection; VP=Vegetation Planting; WA=Wastewater Assimilation.

Parish: Asc.=Ascension, Asu.=Assumption, Cal.=Calcasieu, Cam.=Cameron, Ibe.=Iberia, Jef.=Jefferson, Laf.=Lafourche, Liv.=Livingston, Orl.=Orleans, Plaq.=Plaquemines, StB.=St. Bernard, StC.=St. Charles, StJa.=St. James, StJo.=St. John the Baptist, StM.=St. Mary, StMt.=St. Martin, StT.=St. Tammany, Tan.=Tangipahoa, Ter.=Terrebonne, Ver.=Vermilion.

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ATTACHMENT D

Restoration Partnership Projects

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RESTORATION PARTNERSHIP PROJECTS

Program	Project Number	Project Name	Project Type	Project Sponsor	Parish	Project Costs	Project Summary	Planning Unit
Rest. Partnerships	N/A	Westwego WHARF	LA	City of Westwego	Jef.	$1,000,000 (State) $1,250,000 (TPL Match)	In 2008, the Trust for Public Land (TPL) helped the City of Westwego acquire a 92-acre tract of cypress/bottomland hardwood forest that will provide the residents of Westwego water access to the Jean Lafitte Historical Park, Bayou Segnette State Park, and Lake Salvador Game Management Preserve. This property will be developed into a wetlands park known as the WHARF – Wetlands Harbor Activities Recreational Facility. This facility will provide opportunities for the physically challenged to experience Louisiana's natural environment. The Partnership Fund will provide $1 million to the City of Westwego for repayment to TPL to help them recoup some of the costs of the acquisition.	2
Rest. Partnerships	N/A	Christian Marsh Terraces Project	VP	Terrebonne Parish Consolidated Government	Ter.	$40,000 (State) $30,000 (TPCG Match)	Terrebonne Parish, in partnership with the Barataria Terrebonne National Estuary Program (BTNEP) will conduct a series of four vegetative plantings on the newly created marsh cells at site of the recently completed CWPPRA Project TE-44 , North Lake Mechant Landbridge. Earthen plugs will also be planted. Terrebonne Parish will provide additional financial support, and the BTNEP will provide project implementation services, including logistical support and volunteer coordination. Terrebonne Parish and BTNEP also propose to conduct vegetative plantings at three additional sites: the marsh area adjacent to the Upper Petite Caillou (Bayou Neuf) pump Station near Chauvin, the toe of the non-federal levee near Dulac (Suzy Canal), and in the Caillou Marshes EMU on and adjacent to the Harry Bourg Corporation property.	3a
Rest. Partnerships	N/A	10,000 Trees for Louisiana	MC	ConocoPhilips	Ter.	$30,000 (State) $5,000 (ConocoPhilips Match)	The project consists of dredging approximately 875 cubic yards of sediment to construct an earthen plug. The proposed earthen plug is needed to complete the CWPPRA Project TE-44, North Mechant Landbridge Restoration. The plug is will be planted with natural vegetation for this area.	3a
Rest. Partnerships	N/A	Terrebonne Vegetative Plantings	SNT, VP	Coalition to Restore Coastal Louisiana	Ver.	$454,720 (State) $298,000 (CRCL Match)	The project proposes to build terraces and plant vegetation within an area of shallow open water that was formerly vegetated marsh. The project will create 20,850 linear feet of terraces which will enhance and protect an additional 300 acres of adjacent marsh. To protect the shoreline of the new terraces and to help bind the newly placed soils, appropriate vegetation will be planted by volunteers recruited from the local communities and across South Louisiana.	3b
Rest. Partnerships	N/A	Calcasieu-Sabine Watershed Restoration	HR, SNT	Ducks Unlimited	Cal.	$1,780,805 (State) $966,214 (DU Match)	The objectives of this project are to 1) restore the historic flow of First Bayou, thereby providing fresh water to the surrounding marshes and preventing flooding to communities in the area; 2) create marsh terraces in the Gum Gove region to reduce wave fetch, prevent erosion, and promote the growth of emergent/submerged vegetation; and 3) restore the cross-sectional elevations of Oyster Bayou to help promote healthy marsh in the area. The proposed restoration would reroute drainage through First Bayou and associated roadside conveyances, under the First Bayou-Highway 27 Bridge and into Mud Lake. A total of 105,000 linear feet of marsh terraces are proposed to benefit approximately 1,200 acres of marsh and help restore habitats for commercial and recreational activities throughout the Calcasieu-Sabine region. Restoration of Oyster Bayou's cross-sectional elevations will return salinity patterns and variations to a semblance of their historical patterns, and thereby return more than 7,000 acres within the Oyster Bayou watershed to higher levels of primary productivity that should ultimately result in marsh recovery and the creation of land.	4
Rest. Partnerships	N/A	North Lake Mechant Landbridge Completion	VP	Coalition to Restore Coastal Louisiana	Jef., Plaq., StT., Tan., Ver.	$84,475 (State) $335,790 (CRCL Match)	The Restoration Tree Trust has donated a total of 10,000 native trees for vegetative planting in the Coalition to Restore Coastal Louisiana's (CRCL) Community-Based Restoration Program. Over 25 species of trees are available and will be planted in densities ranging from 125 to 150 trees per acre. Tree protectors will be purchased to reduce predation. Multiple project sites have been identified across the coast from Southwest Louisiana to the Mississippi Delta.	Coastwide

Project Type: BI=Barrier Island; DM=Beneficial Use of Dredged Material; FD=Freshwater Diversion; HP=Hurricane Protection; HR=Hydrologic Restoration; INF=Infrastructure; LA=Land Acquisition; MC=Marsh Creation; MM=Marsh Management; OM=Outfall Management; PA=Public Access; PL=Planning; SD=Sediment Diversion; SNT=Sediment and Nutrient Trapping; SP=Shoreline Protection; VP=Vegetation Planting.

Parish: Asc.=Ascension, Asu.=Assumption, Cal.=Calcasieu, Cam.=Cameron, Ibe.=Iberia, Jef.=Jefferson, Laf.=Lafourche, Liv.=Livingston, Orl.=Orleans, Plaq.=Plaquemines, StB.=St. Bernard, StC.=St. Charles, StJa.=St. James, StJo.=St. John the Baptist, StM.=St. Mary, StMt.=St. Martin, StT.=St. Tammany, Tan.=Tangipahoa, Ter.=Terrebonne, Ver.=Vermilion.

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APPENDIX F

CPRA Fiscal Year 2012 Capital Outlay Request

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FISCAL YEAR 2012 CAPITAL OUTLAY REQUEST

Project	State Funding Request				
	(Year 1)[1] FY 2012	(Year 2)[2] FY 2013	(Year 3) FY 2014	(Year 4) FY 2015	(Year 5)[3] Outlying Years
West Bank and Vicinity, New Orleans, LA Hurricane Protection	**$27,000,000**	**$27,000,000**	$27,000,000	$27,000,000	$256,500,000
Lake Pontchartrain, LA & Vicinity Hurricane Protection Project	**$31,000,000**	**$31,000,000**	$31,000,000	$31,000,000	$514,000,000
Morganza, LA to the Gulf of Mexico Hurricane Protection Project	**$25,000,000**	**$15,000,000**	$35,000,000	$35,000,000	$100,345,000
Donaldsonville, LA to the Gulf of Mexico Hurricane Protection Project	**---**	**$2,500,000**	$5,000,000	$15,000,000	$369,500,000
Southwest Coastal Louisiana Project	**---**	**$500,000**	$2,250,000	$2,250,000	$350,000,000
La Rose to Golden Meadow, LA Hurricane Protection Project	**---**	**$6,600,000**	$500,000		
West Shore-Lake Pontchartrain, Louisiana Hurricane Protection Project	**---**	**$1,500,000**	$5,000,000	$15,000,000	$135,300,000
Delcambre-Avery Canal Storm Surge Protection	**$8,000,000**	**$1,000,000**	---	---	---
South Central Feasibility Study ($3 Million Federal Match)	**$1,000,000**	**$1,000,000**	---	---	---

Notes:

1- FY 2012 Priority 2.

2- FY 2012 Priority 5.

3- As per DOA's request, Year 5 represents the remaining authorized project costs over the life of the project. Donaldsonville to the Gulf, West Shore Lake Pontchartrain, and Southwest Coastal construction costs are rough estimates as these projects are still in the feasibility stage.

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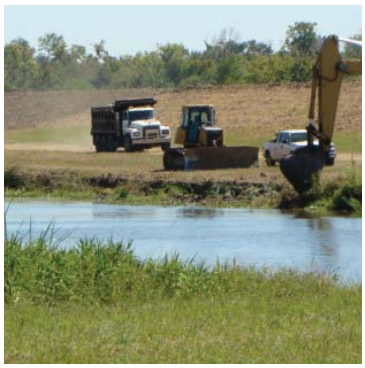

CPRA
Coastal Protection and
Restoration Authority of Louisiana

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